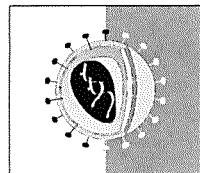


**DATA SHEET**  
**SIVmac239 Pol (15-mer) Peptide- Complete Set**  
**(Cat# 6443, LOT# 4 080132)**

No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
1	SIVmac239 Pol (15-mer) peptide	VLELWERGTLCKAMQ	95.1	83.4	+	+	+	+
2	SIVmac239 Pol (15-mer) peptide	WERGTLCKAMQSPKK	97.5	70.8	+	+	+	+
3	SIVmac239 Pol (15-mer) peptide	TLCKAMQSPKKTGML	96.8	74.4	+	+	+	+
4	SIVmac239 Pol (15-mer) peptide	AMQSPKKTGMLLEMWK	98.0	72.5	+	+	+	+
5	SIVmac239 Pol (15-mer) peptide	PKKTGMLEMWKNGPC	93.5	76.4	+	+	+	+
6	SIVmac239 Pol (15-mer) peptide	GMLEMWKNGPCYGQM	91.7	81.6	+	+	+	+
7	SIVmac239 Pol (15-mer) peptide	MWKNGPCYQMPRT	96.3	77.5	+	+	+	+
8	SIVmac239 Pol (15-mer) peptide	GPCYQMPRQTGGFF	96.6	87.0	+	+	+	+
9	SIVmac239 Pol (15-mer) peptide	GQMPRTGGFFRPWS	98.8	83.1	+	+	+	+
10	SIVmac239 Pol (15-mer) peptide	RQTGGFFRPWSMGKE	90.0	71.5	+	+	+	+
11	SIVmac239 Pol (15-mer) peptide	GFFRPWSMGKEAPQF	95.2	83.8	+	+	+	+
12	SIVmac239 Pol (15-mer) peptide	PWSMGKEAPQFPHGS	96.4	75.5	+	+	+	+
13	SIVmac239 Pol (15-mer) peptide	GKEAPQFPFHSSASG	96.1	76.8	+	+	+	+
14	SIVmac239 Pol (15-mer) peptide	PQFPFHSSASGADAN	97.5	86.5	+	+	+	+
15	SIVmac239 Pol (15-mer) peptide	HGSSASGADANCSPR	85.7	77.6	+	+	+	+
16	SIVmac239 Pol (15-mer) peptide	ASGADANCSPRGPSC	93.9	82.6	+	+	+	+
17	SIVmac239 Pol (15-mer) peptide	DANCSPRGPSCGSAK	92.4	75.9	+	+	+	+
18	SIVmac239 Pol (15-mer) peptide	SPRGPSCGSAKELHA	84.2	64.2	+	+	+	+
19	SIVmac239 Pol (15-mer) peptide	PSCGSAKELHAVGQA	94.5	71.4	+	+	+	+
20	SIVmac239 Pol (15-mer) peptide	SAKELHAVGQAAERK	92.0	72.2	+	+	+	+
21	SIVmac239 Pol (15-mer) peptide	LHAVGQAAERKAERK	83.0	65.2	+	+	+	+
22	SIVmac239 Pol (15-mer) peptide	GQAAERKAERKQREA	85.8	67.3	+	+	+	+
23	SIVmac239 Pol (15-mer) peptide	ERKAERKQREALQGG	94.3	69.6	+	+	+	+
24	SIVmac239 Pol (15-mer) peptide	ERKQREALQGGDRGF	93.5	72.9	+	+	+	+
25	SIVmac239 Pol (15-mer) peptide	REALQGGDRGFAAPQ	94.4	77.2	+	+	+	+

NOTE: Peptides that are difficult to solubilize can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution.

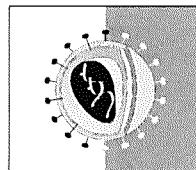
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
26	SIVmac239 Pol (15-mer) peptide	QGGDRGFAAPQFSLW	88.2	79.7	+	+	+	+
27	SIVmac239 Pol (15-mer) peptide	RGFAAPQFSLWRRPV	97.9	78.4	+	+	+	+
28	SIVmac239 Pol (15-mer) peptide	APQFSLWRRPVVTAH	96.3	70.9	+	+	+	+
29	SIVmac239 Pol (15-mer) peptide	SLWRRPVVTAHIEQ	86.9	70.7	+	+	+	+
30	SIVmac239 Pol (15-mer) peptide	RPVVTAHIEQQPVEV	94.8	79.8	+	+	+	+
31	SIVmac239 Pol (15-mer) peptide	TAHIEQQPVEVLLDT	94.4	81.4	+	+	+	+
32	SIVmac239 Pol (15-mer) peptide	EGQPVEVLLDTGADD	93.1	90.4	+	+	+	+
33	SIVmac239 Pol (15-mer) peptide	VEVLLDTGADDSIVT	90.9	82.5	-	+	-	+
34	SIVmac239 Pol (15-mer) peptide	LDTGADDSIVTGIEL	93.2	77.1	-	+	-	+
35	SIVmac239 Pol (15-mer) peptide	ADDSIVTGIELGPHY	96.9	73.9	-	+	+	+
36	SIVmac239 Pol (15-mer) peptide	IVTGIELGPHYTPKI	94.6	81.9	+	+	+	+
37	SIVmac239 Pol (15-mer) peptide	IELGPHYTPKIVGGI	96.6	80.8	+	+	+	+
38	SIVmac239 Pol (15-mer) peptide	PHYTPKIVGGIGGF	91.0	80.7	+	+	+	+
39	SIVmac239 Pol (15-mer) peptide	PKIVGGIGGFINTKE	95.9	81.0	+	-	+	+
40	SIVmac239 Pol (15-mer) peptide	GGIGGFINTKEYKNV	99.1	74.0	+	+	+	+
41	SIVmac239 Pol (15-mer) peptide	GFINTKEYKNVEIEV	91.8	77.2	-	-	+	+
42	SIVmac239 Pol (15-mer) peptide	TKEYKNVEIEVLGKR	95.8	73.2	+	+	+	+
43	SIVmac239 Pol (15-mer) peptide	KNVEIEVLGKRIKGT	97.0	73.5	+	+	+	+
44	SIVmac239 Pol (15-mer) peptide	IEVLGKRIKGTTIMTG	99.2	77.6	+	+	+	+
45	SIVmac239 Pol (15-mer) peptide	GKRIKGTTIMGTDTPI	97.4	77.2	+	+	+	+
46	SIVmac239 Pol (15-mer) peptide	KGTIMTGDTPINIFG	97.2	79.9	+	+	+	+
47	SIVmac239 Pol (15-mer) peptide	MTGDTPINIFGRNLL	95.8	85.7	+	+	+	+
48	SIVmac239 Pol (15-mer) peptide	TPINIFGRNLLTALG	97.5	84.6	+	-	+	+
49	SIVmac239 Pol (15-mer) peptide	IFGRNLLTALGMSLN	87.0	85.3	+	-	+	+
50	SIVmac239 Pol (15-mer) peptide	NLLTALGMSLNFPIA	96.6	76.2	-	-	+	+
51	SIVmac239 Pol (15-mer) peptide	ALGMSLNFPPIAKVEP	95.9	77.9	+	+	+	+
52	SIVmac239 Pol (15-mer) peptide	SLNFPIAKVEPVKVA	92.1	74.8	+	+	+	+

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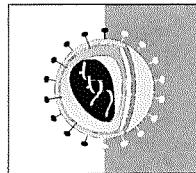
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
53	SIVmac239 Pol (15-mer) peptide	PIAKVEPVKVALKPG	97.1	70.8	+	+	+	+
54	SIVmac239 Pol (15-mer) peptide	VEPVVKVALKPGKDGP	97.9	69.7	+	+	+	+
55	SIVmac239 Pol (15-mer) peptide	KVALKPGKDGPKLKQ	88.6	69.6	+	+	+	+
56	SIVmac239 Pol (15-mer) peptide	KPGKDGPKLKQWPLS	96.9	69.5	+	+	+	+
57	SIVmac239 Pol (15-mer) peptide	DGPKLKQWPLSKEKI	95.3	65.9	+	+	+	+
58	SIVmac239 Pol (15-mer) peptide	LKQWPLSKEKIVALR	92.9	70.0	+	+	+	+
59	SIVmac239 Pol (15-mer) peptide	PLSKEKIVALREICE	97.4	78.7	+	+	+	+
60	SIVmac239 Pol (15-mer) peptide	EKIVALREICEKMEK	93.9	74.6	+	+	+	+
61	SIVmac239 Pol (15-mer) peptide	ALREICEKMEKDGQL	96.7	75.4	+	+	+	+
62	SIVmac239 Pol (15-mer) peptide	ICEKMEKDGQLEEAAP	88.1	65.3	+	+	+	+
63	SIVmac239 Pol (15-mer) peptide	MEKDQLEEAAPPTNP	94.1	84.1	+	+	+	+
64	SIVmac239 Pol (15-mer) peptide	GQLEEAPPTNPYNTP	92.5	84.5	+	+	+	+
65	SIVmac239 Pol (15-mer) peptide	EAPPTNPYNTPTFAI	96.7	78.0	+	+	+	+
66	SIVmac239 Pol (15-mer) peptide	TNPYNTPTFAIKKKD	95.4	73.2	+	+	+	+
67	SIVmac239 Pol (15-mer) peptide	NTPTFAIKKKDKNKW	99.0	70.9	+	+	+	+
68	SIVmac239 Pol (15-mer) peptide	FAIHKKDKKNKWRMLI	97.1	65.3	+	+	+	+
69	SIVmac239 Pol (15-mer) peptide	KKDKKNKWRMLIDFRE	91.2	64.1	+	-	+	+
70	SIVmac239 Pol (15-mer) peptide	NKWRMLIDFRELRNV	94.9	75.8	+	-	+	+
71	SIVmac239 Pol (15-mer) peptide	MLIDFRELNRTQDF	97.8	82.9	-	-	-	+
72	SIVmac239 Pol (15-mer) peptide	FRELNRVTQDFTEVQ	91.9	83.5	+	+	+	+
73	SIVmac239 Pol (15-mer) peptide	NRVTQDFTEVQLGIP	88.6	79.0	+	+	+	+
74	SIVmac239 Pol (15-mer) peptide	QDFTEVQLGIPHAG	88.1	81.9	+	+	+	+
75	SIVmac239 Pol (15-mer) peptide	EVQLGIPHAGLAKR	96.2	76.9	+	+	+	+
76	SIVmac239 Pol (15-mer) peptide	GIPHAGLAKRKIT	98.3	69.0	+	+	+	+
77	SIVmac239 Pol (15-mer) peptide	PAGLAKRKITVLDI	97.0	72.5	+	+	+	+
78	SIVmac239 Pol (15-mer) peptide	AKRKITVLDIGDAY	95.9	73.1	+	+	+	+
79	SIVmac239 Pol (15-mer) peptide	RITVLDIGDAYFSIP	92.9	84.9	-	-	-	+

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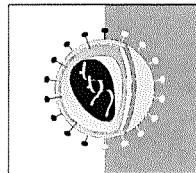
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data				Alternate solution
					Water	PBS	10% Acetic Acid	DMSO	
80	SIVmac239 Pol (15-mer) peptide	LDIGDAYFSIPLDEE	98.1	90.0	-	+	+	+	
81	SIVmac239 Pol (15-mer) peptide	DAYFSIPLDEEFRQY	97.8	86.9	-	+	+	+	
82	SIVmac239 Pol (15-mer) peptide	SIPLDEEFRQYTAFT	93.6	86.3	+	+	+	+	
83	SIVmac239 Pol (15-mer) peptide	DEEFRQYTAFTLPSV	97.9	88.1	-	+	+	+	
84	SIVmac239 Pol (15-mer) peptide	RQYTAFTLPSVNNAE	92.3	78.9	+	+	+	+	
85	SIVmac239 Pol (15-mer) peptide	AFTLPSVNNAEPGKRR	99.5	76.9	+	+	+	+	
86	SIVmac239 Pol (15-mer) peptide	PSVNNAEPGKRYIYK	96.9	73.9	+	+	+	+	
87	SIVmac239 Pol (15-mer) peptide	NAEPGKRYIYKVLPQ	98.2	76.6	+	+	+	+	
88	SIVmac239 Pol (15-mer) peptide	GKRYIYKVLPQGWKG	97.9	71.1	+	+	+	+	
89	SIVmac239 Pol (15-mer) peptide	IYKVLPQGWKGSPAII	95.1	82.7	+	+	+	+	
90	SIVmac239 Pol (15-mer) peptide	LPQGWKGSPAIFQYT	96.4	85.2	+	+	+	+	
91	SIVmac239 Pol (15-mer) peptide	WKGSPIAFQYTMRHV	96.4	79.8	+	+	+	+	
92	SIVmac239 Pol (15-mer) peptide	PAIFQYTMRHVLEPF	95.8	78.1	-	-	+	+	
93	SIVmac239 Pol (15-mer) peptide	QYTMRHVLEPFRKAN	86.6	72.4	+	+	+	+	
94	SIVmac239 Pol (15-mer) peptide	RHVLEPFRKANPDVT	97.0	71.0	+	+	+	+	
95	SIVmac239 Pol (15-mer) peptide	EPFRKANPDVTLVQY	97.7	81.8	+	+	+	+	
96	SIVmac239 Pol (15-mer) peptide	KANPDVTLVQYMDDI	94.0	70.8	-	+	+	-	
97	SIVmac239 Pol (15-mer) peptide	DVTLVQYMDDILIAS	86.8	84.7	-	-	-	-	0.02% ammonia
98	SIVmac239 Pol (15-mer) peptide	VQYMDDILIASDRTD	92.0	87.6	-	+	-	+	
99	SIVmac239 Pol (15-mer) peptide	DDILIASDRTDLEHD	86.7	76.1	-	+	-	+	
100	SIVmac239 Pol (15-mer) peptide	IASDRTDLEHDRVVL	92.8	72.7	+	+	+	+	
101	SIVmac239 Pol (15-mer) peptide	RTDLEHDRVVLQSKE	90.1	73.0	+	+	+	+	
102	SIVmac239 Pol (15-mer) peptide	EHDRVVLQSKEELLNS	97.3	77.2	+	+	+	+	
103	SIVmac239 Pol (15-mer) peptide	VVLQSKELLNSIGFST	89.7	86.2	+	+	+	+	
104	SIVmac239 Pol (15-mer) peptide	SKELLNSIGFSTPEE	99.4	79.0	+	+	+	+	
105	SIVmac239 Pol (15-mer) peptide	LNSIGFSTPEEKFQK	96.2	68.7	+	+	+	+	
106	SIVmac239 Pol (15-mer) peptide	GFSTPEEKFQKDPPF	98.2	69.3	+	+	+	+	

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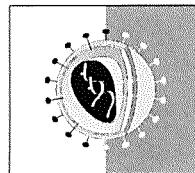
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
107	SIVmac239 Pol (15-mer) peptide	PEEKFQKDPPFQWMG	97.0	72.1	+	+	+	+
108	SIVmac239 Pol (15-mer) peptide	FQKDPPFQWMGYELW	92.7	75.6	+	+	+	+
109	SIVmac239 Pol (15-mer) peptide	PPFQWMGYELWPTKW	89.8	88.9	-	-	+	+
110	SIVmac239 Pol (15-mer) peptide	WMGYELWPTKWLQK	96.0	75.1	+	+	+	+
111	SIVmac239 Pol (15-mer) peptide	ELWPTKWLQKIELP	95.5	62.6	+	+	+	+
112	SIVmac239 Pol (15-mer) peptide	TKWKLQKIELPQRET	95.9	61.9	+	+	+	+
113	SIVmac239 Pol (15-mer) peptide	LQKIELPQRETWTVN	88.2	65.5	+	+	+	+
114	SIVmac239 Pol (15-mer) peptide	ELPQRETWTVNDIQK	96.8	84.7	+	+	+	+
115	SIVmac239 Pol (15-mer) peptide	RETWTVNDIQKLGV	96.5	73.5	+	+	+	+
116	SIVmac239 Pol (15-mer) peptide	TVNDIQKLGVLNWA	84.2	68.3	-	-	+	+
117	SIVmac239 Pol (15-mer) peptide	IQKLGVLNWAAQIY	90.5	78.7	+	-	+	+
118	SIVmac239 Pol (15-mer) peptide	VGVLNWAAQIYPGIK	96.2	81.9	+	+	+	+
119	SIVmac239 Pol (15-mer) peptide	NWAAQIYPGIKTKHL	96.8	71.9	+	+	+	+
120	SIVmac239 Pol (15-mer) peptide	QIYPGIKTKHLCRLI	86.8	72.5	+	+	+	+
121	SIVmac239 Pol (15-mer) peptide	GIKTKHLCRLIRGKM	98.3	68.0	+	+	+	+
122	SIVmac239 Pol (15-mer) peptide	KHLCRLIRGKMTLTE	95.6	62.7	+	+	+	+
123	SIVmac239 Pol (15-mer) peptide	RLIRGKMTLTEEVQW	83.6	66.0	+	-	+	+
124	SIVmac239 Pol (15-mer) peptide	GKMTLTEEVQWTEMA	85.8	82.4	-	+	+	+
125	SIVmac239 Pol (15-mer) peptide	LTEEVQWTEMAEAEY	88.7	79.2	-	+	-	+
126	SIVmac239 Pol (15-mer) peptide	VQWTEMAEAEYEENK	94.6	77.1	-	+	-	+
127	SIVmac239 Pol (15-mer) peptide	EMAEAEYEENKIILS	86.4	78.7	-	+	-	+
128	SIVmac239 Pol (15-mer) peptide	AEYEENKIILSQEQE	97.2	78.6	-	+	-	-
129	SIVmac239 Pol (15-mer) peptide	ENKIILSQEQEGCYY	95.4	86.9	-	-	-	+
130	SIVmac239 Pol (15-mer) peptide	IILSQEQEGCYYQEGK	91.5	74.9	-	+	+	+
131	SIVmac239 Pol (15-mer) peptide	EQEGCYYQEGKPLEA	92.9	74.9	+	+	+	+
132	SIVmac239 Pol (15-mer) peptide	CYYQEGKPLEATVIK	95.9	81.6	+	+	+	+
133	SIVmac239 Pol (15-mer) peptide	EGKPLEATVIKSQDN	88.2	79.1	+	+	+	+

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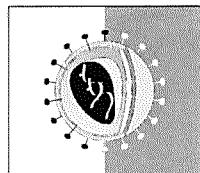
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
134	SIVmac239 Pol (15-mer) peptide	LEATVIKSQDNQWSY	96.6	84.9	-	-	+	+
135	SIVmac239 Pol (15-mer) peptide	VIKSQDNQWSYKIHQ	92.8	75.7	+	-	+	+
136	SIVmac239 Pol (15-mer) peptide	QDNQWSYKIHQEDKI	95.1	80.1	+	-	+	+
137	SIVmac239 Pol (15-mer) peptide	WSYKIHQEDKILKVG	92.5	74.4	+	-	+	+
138	SIVmac239 Pol (15-mer) peptide	IHQEDKILKVGKFAK	97.0	71.0	+	+	+	+
139	SIVmac239 Pol (15-mer) peptide	DKILKVGKFAKIKNT	89.2	63.2	+	+	+	+
140	SIVmac239 Pol (15-mer) peptide	KVGKFAKIKNTHTNG	94.3	68.7	+	+	+	+
141	SIVmac239 Pol (15-mer) peptide	FAKIKNTHTNGVRLL	98.0	67.0	+	-	+	+
142	SIVmac239 Pol (15-mer) peptide	KNTHTNGVRLLAHVI	96.2	73.3	+	+	+	+
143	SIVmac239 Pol (15-mer) peptide	TNGVRLLAHVIQKIG	94.2	75.6	+	-	+	+
144	SIVmac239 Pol (15-mer) peptide	RLLAHVIQKIGKEAI	98.7	73.1	+	+	+	+
145	SIVmac239 Pol (15-mer) peptide	HVIQKIGKEAIVIWG	94.1	77.6	+	-	+	+
146	SIVmac239 Pol (15-mer) peptide	KIGKEAIVIWGQVPK	95.7	74.6	+	+	+	+
147	SIVmac239 Pol (15-mer) peptide	EAIIVIWGQVPKFHLP	96.5	81.2	+	-	+	+
148	SIVmac239 Pol (15-mer) peptide	IWGQVPKFHLPVEKD	94.7	79.9	+	+	+	+
149	SIVmac239 Pol (15-mer) peptide	VPKFHLPVEKDVWEQ	90.3	80.4	+	+	+	+
150	SIVmac239 Pol (15-mer) peptide	HLPVEKDVWEQWWTD	98.7	73.3	+	+	+	+
151	SIVmac239 Pol (15-mer) peptide	EKDVWEQWWTDYWQV	88.6	79.5	-	+	-	+
152	SIVmac239 Pol (15-mer) peptide	WEQWWTDYWQVTWIP	80.9	88.7	-	+	-	+
153	SIVmac239 Pol (15-mer) peptide	WTDYWQVTWIPEWDF	89.2	89.9	-	+	-	+
154	SIVmac239 Pol (15-mer) peptide	WQVTWIPEWDFISTP	80.3	76.7	-	+	-	+
155	SIVmac239 Pol (15-mer) peptide	WIPEWDFISTPPLVR	95.4	73.2	+	+	+	+
156	SIVmac239 Pol (15-mer) peptide	WDFISTPPLVRLVFN	84.3	87.9	-	-	+	+
157	SIVmac239 Pol (15-mer) peptide	STPPLVRLVFNLVKD	95.6	74.7	+	-	+	+
158	SIVmac239 Pol (15-mer) peptide	LVRLVFNLVKDPIEG	94.4	79.2	-	-	+	+
159	SIVmac239 Pol (15-mer) peptide	VFNLVVKDPIEGETY	86.8	79.1	+	+	+	+
160	SIVmac239 Pol (15-mer) peptide	VKDPIEGEETYYTDG	92.6	87.4	+	+	+	+

NOTE: Peptides that are difficult to solubilize can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution.

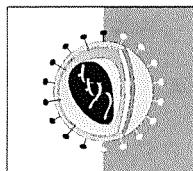
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
161	SIVmac239 Pol (15-mer) peptide	IEGEETYTYTDGSCNK	94.9	74.7	+	+	+	+
162	SIVmac239 Pol (15-mer) peptide	ETYYTDGSCNKQSKE	91.3	79.4	+	+	+	+
163	SIVmac239 Pol (15-mer) peptide	TDGSCNKQSKEKGKAG	87.3	69.7	+	+	+	+
164	SIVmac239 Pol (15-mer) peptide	CNKQSKEKGKAGYITD	95.7	71.3	-	+	+	+
165	SIVmac239 Pol (15-mer) peptide	SKEKGKAGYITDRGKD	83.6	63.9	+	+	+	+
166	SIVmac239 Pol (15-mer) peptide	KAGYITDRGKDVKV	93.4	63.8	+	+	+	+
167	SIVmac239 Pol (15-mer) peptide	ITDRGKDVKVLEQT	95.2	66.2	+	+	+	+
168	SIVmac239 Pol (15-mer) peptide	GKDKVKVLEQTTNQQ	95.2	72.4	+	+	+	+
169	SIVmac239 Pol (15-mer) peptide	VKVLEQTTNQQAELE	87.4	83.8	-	-	+	+
170	SIVmac239 Pol (15-mer) peptide	EQTTNQQAELEAFLM	95.6	76.6	-	+	-	+
171	SIVmac239 Pol (15-mer) peptide	NQQAELEAFLMALTD	93.5	87.1	-	-	+	-
172	SIVmac239 Pol (15-mer) peptide	ELEAFLMALTDGPK	94.5	80.2	-	+	-	+
173	SIVmac239 Pol (15-mer) peptide	FLMALTDGPKANII	91.1	76.7	+	+	+	+
174	SIVmac239 Pol (15-mer) peptide	LTDGPKANIIIVDSQ	89.4	76.7	-	+	+	+
175	SIVmac239 Pol (15-mer) peptide	GPKANIIIVDSQYVMG	92.3	72.7	-	-	+	+
176	SIVmac239 Pol (15-mer) peptide	NIIIVDSQYVMGIITG	84.8	77.6	-	-	-	+
177	SIVmac239 Pol (15-mer) peptide	DSQYVMGIITGCPTE	89.8	87.3	-	+	-	+
178	SIVmac239 Pol (15-mer) peptide	VMGIITGCPTESESR	92.1	76.4	+	+	+	+
179	SIVmac239 Pol (15-mer) peptide	ITGCPTESSESRLVNQ	94.5	84.3	+	+	+	+
180	SIVmac239 Pol (15-mer) peptide	PTESESRLVNQIIEE	93.8	87.1	-	+	+	+
181	SIVmac239 Pol (15-mer) peptide	ESRLVNQIIEEMIKK	94.4	66.2	+	+	+	+
182	SIVmac239 Pol (15-mer) peptide	VNQIIEEMIKKSEIY	96.2	78.9	+	-	+	+
183	SIVmac239 Pol (15-mer) peptide	IEEMIKKSEIYVAWV	82.0	84.9	-	-	+	+
184	SIVmac239 Pol (15-mer) peptide	IKKSEIYVAWVPAHK	98.2	66.0	+	+	+	+
185	SIVmac239 Pol (15-mer) peptide	EIYVAWVPAHKGIGG	89.3	80.7	+	+	+	+
186	SIVmac239 Pol (15-mer) peptide	AWVPAHKGIGGNQEI	89.9	75.8	+	+	+	+
187	SIVmac239 Pol (15-mer) peptide	AHKGIGGNQEIDHLV	95.7	74.8	+	+	+	+

NOTE: Peptides that are difficult to solubilize can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution.

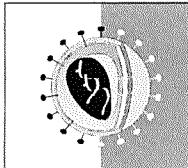
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
188	SIVmac239 Pol (15-mer) peptide	IGGNQEIDHLVSQLGI	94.3	80.9	+	+	+	+
189	SIVmac239 Pol (15-mer) peptide	QEIDHLVSQLGIROQL	91.4	82.7	+	+	+	+
190	SIVmac239 Pol (15-mer) peptide	HLVSQLGIROQLFLEK	97.4	73.1	+	-	+	+
191	SIVmac239 Pol (15-mer) peptide	QGIRQVLFLEKIEPA	86.9	76.1	+	-	+	+
192	SIVmac239 Pol (15-mer) peptide	QVLFLEKIEPAQEEH	90.9	83.7	+	+	+	+
193	SIVmac239 Pol (15-mer) peptide	LEKIEPAQEEHDKYH	97.6	65.7	+	+	+	+
194	SIVmac239 Pol (15-mer) peptide	EPAQEEHDKYHSNVK	95.7	70.8	+	+	+	+
195	SIVmac239 Pol (15-mer) peptide	EEHDKYHSNVKELVF	97.6	72.4	+	+	+	+
196	SIVmac239 Pol (15-mer) peptide	KYHSNVKELVFKFGL	96.7	70.4	+	-	+	+
197	SIVmac239 Pol (15-mer) peptide	NVKELVFKFGLPRIV	96.4	74.3	+	-	+	+
198	SIVmac239 Pol (15-mer) peptide	LVFKFGLPRIVARQI	92.1	75.7	+	+	+	+
199	SIVmac239 Pol (15-mer) peptide	FGLPRIVARQIVDTC	87.2	75.4	-	-	+	+
200	SIVmac239 Pol (15-mer) peptide	RIVARQIVDTCDKCH	86.6	72.9	+	+	+	+
201	SIVmac239 Pol (15-mer) peptide	RQIVDTCDKCHQKGE	87.7	64.0	+	+	+	+
202	SIVmac239 Pol (15-mer) peptide	DTCDKCHQKGEAIHG	86.4	73.8	+	+	+	+
203	SIVmac239 Pol (15-mer) peptide	KCHQKGEAIHGQANS	91.8	61.9	+	+	+	+
204	SIVmac239 Pol (15-mer) peptide	KGEAIHGQANSQDLGT	92.5	77.7	+	+	+	+
205	SIVmac239 Pol (15-mer) peptide	IHGQANSQDLGTWQMD	95.4	81.8	+	+	+	+
206	SIVmac239 Pol (15-mer) peptide	ANSDLGTWQMDCTHL	95.6	88.0	+	+	+	+
207	SIVmac239 Pol (15-mer) peptide	LGTWQMDCTHLEGKI	95.6	83.6	+	-	+	+
208	SIVmac239 Pol (15-mer) peptide	QMDCTHLEGKIIIVA	87.1	75.5	+	-	+	+
209	SIVmac239 Pol (15-mer) peptide	THLEGKIIIVAHVA	84.6	86.4	+	-	+	+
210	SIVmac239 Pol (15-mer) peptide	GKIIIVAVHVASGFI	89.4	78.3	-	-	+	+
211	SIVmac239 Pol (15-mer) peptide	IVAVHVASGFIEAEV	95.9	69.6	-	+	+	+
212	SIVmac239 Pol (15-mer) peptide	HVASGFIEAEVIPQE	98.6	81.1	+	+	+	+
213	SIVmac239 Pol (15-mer) peptide	GFIEAEVIPQETGRQ	96.6	88.0	+	+	+	+
214	SIVmac239 Pol (15-mer) peptide	AEVIPQETGRQTAFL	94.1	78.8	+	+	+	+

NOTE: Peptides that are difficult to solubilize can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution.

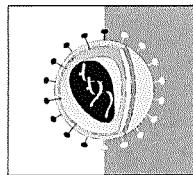
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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
215	SIVmac239 Pol (15-mer) peptide	PQETGRQTALFLLKL	94.9	81.9	+	-	+	+
216	SIVmac239 Pol (15-mer) peptide	GRQTALFLLKLAGRW	86.3	76.3	+	-	+	+
217	SIVmac239 Pol (15-mer) peptide	ALFLLKLAGRWPITH	97.4	79.4	+	-	+	+
218	SIVmac239 Pol (15-mer) peptide	LKLAGRWPITHLHTD	91.4	67.4	+	+	+	+
219	SIVmac239 Pol (15-mer) peptide	GRWPITHLHTDNGAN	85.8	72.2	-	+	+	+
220	SIVmac239 Pol (15-mer) peptide	ITHLHTDNGANFASQ	88.4	75.5	+	+	+	+
221	SIVmac239 Pol (15-mer) peptide	HTDNGANFASQEVKM	83.5	80.7	+	-	+	+
222	SIVmac239 Pol (15-mer) peptide	GANFASQEVKMVAWW	90.4	72.6	-	-	+	+
223	SIVmac239 Pol (15-mer) peptide	ASQEVKVMVAWWAGIE	89.8	85.5	-	-	+	+
224	SIVmac239 Pol (15-mer) peptide	VKVMVAWWAGIEHTFG	95.5	83.5	-	-	+	+
225	SIVmac239 Pol (15-mer) peptide	AWWAGIEHTFGVPYN	94.3	80.3	-	+	+	+
226	SIVmac239 Pol (15-mer) peptide	GIEHTFGVPYNPQSQ	91.9	79.5	+	+	+	+
227	SIVmac239 Pol (15-mer) peptide	TFGVVPYNPQSQGVVE	95.1	81.4	+	+	+	+
228	SIVmac239 Pol (15-mer) peptide	PYNPQSQGVVEAMNH	88.7	85.8	+	+	+	+
229	SIVmac239 Pol (15-mer) peptide	QSQGVVEAMNHHLKN	91.5	69.2	+	+	+	+
230	SIVmac239 Pol (15-mer) peptide	VVEAMNHHLKNQIDR	95.9	65.6	+	+	+	+
231	SIVmac239 Pol (15-mer) peptide	MNHHLKNQIDRIREQ	96.2	70.8	+	+	+	+
232	SIVmac239 Pol (15-mer) peptide	LKNQIDRIREQANSV	94.2	78.7	+	+	+	+
233	SIVmac239 Pol (15-mer) peptide	IDRIREQANSVETIV	96.9	82.5	+	+	+	+
234	SIVmac239 Pol (15-mer) peptide	REQANSVETIVLMAV	82.5	70.7	-	-	-	+
235	SIVmac239 Pol (15-mer) peptide	NSVETIVLMAVHCMN	84.0	87.6	-	-	-	+
236	SIVmac239 Pol (15-mer) peptide	TIVLMAVHCMNFKRR	94.9	76.7	+	-	+	+
237	SIVmac239 Pol (15-mer) peptide	MAVHCMNFKRRGGIG	97.7	61.0	+	+	+	+
238	SIVmac239 Pol (15-mer) peptide	CMNFKRRGGIGDMTP	85.2	73.5	+	+	+	+
239	SIVmac239 Pol (15-mer) peptide	KRRGGIGDMTPAERL	91.7	72.6	+	+	+	+
240	SIVmac239 Pol (15-mer) peptide	GIGDMTPAERLINMI	94.9	85.9	+	+	+	+
241	SIVmac239 Pol (15-mer) peptide	MTPAERLINMITTEQ	97.4	75.1	-	+	+	+

NOTE: Peptides that are difficult to solubilize can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution.

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No.	Peptide Name	Sequence	HPLC Purity	Peptide Content	Solubility Data			
					Water	PBS	10% Acetic Acid	DMSO
242	SIVmac239 Pol (15-mer) peptide	ERLINMITTEQEIQF	86.3	71.3	-	-	+	+
243	SIVmac239 Pol (15-mer) peptide	NMITTEQEIQFQQSK	87.2	84.5	+	-	+	+
244	SIVmac239 Pol (15-mer) peptide	TEQEIQFQQSKNSKF	96.4	74.7	+	+	+	+
245	SIVmac239 Pol (15-mer) peptide	IQFQQSKNSKFKNFR	97.3	74.9	+	+	+	+
246	SIVmac239 Pol (15-mer) peptide	QSKNSKFKNFRVYYR	95.3	73.2	+	+	+	+
247	SIVmac239 Pol (15-mer) peptide	SKFKNFRRVYYREGD	98.2	73.8	+	-	+	+
248	SIVmac239 Pol (15-mer) peptide	NFRVYYREGRDQLWK	94.8	75.1	+	-	+	+
249	SIVmac239 Pol (15-mer) peptide	YYREGRDQLWKGPGPE	93.4	63.1	+	+	+	+
250	SIVmac239 Pol (15-mer) peptide	GRDQLWKGPGELLWK	97.7	73.8	+	+	+	+
251	SIVmac239 Pol (15-mer) peptide	LWKGPGEELLWKGEGA	82.5	68.5	+	+	+	+
252	SIVmac239 Pol (15-mer) peptide	PGELLWKGEGAVILK	85.4	78.2	+	-	+	+
253	SIVmac239 Pol (15-mer) peptide	LWKGEGAVILKVGT	85.3	79.7	+	-	+	+
254	SIVmac239 Pol (15-mer) peptide	EGAVILKVGTDIKVV	82.9	71.5	+	-	+	+
255	SIVmac239 Pol (15-mer) peptide	ILKVGTDI KVPRRK	96.6	70.8	+	+	+	+
256	SIVmac239 Pol (15-mer) peptide	GTDI KVPRRKAKII	96.4	67.9	+	+	+	+
257	SIVmac239 Pol (15-mer) peptide	KVVPRRKAKIIKDYG	96.6	66.4	+	+	+	+
258	SIVmac239 Pol (15-mer) peptide	RRKAKIIKDYG GKE	93.6	66.7	+	+	+	+
259	SIVmac239 Pol (15-mer) peptide	KIIKDYG GKEVDSS	93.0	72.7	+	+	+	+
260	SIVmac239 Pol (15-mer) peptide	DYGGGKEVDSSSHME	84.4	74.1	+	+	+	+
261	SIVmac239 Pol (15-mer) peptide	GKEVDSSSHMEDTGE	95.1	78.0	+	+	+	+
262	SIVmac239 Pol (15-mer) peptide	DSSSHMEDTGEAREV	89.8	71.5	+	+	+	+
263	SIVmac239 Pol (15-mer) peptide	HMEDTGEAREVA	97.5	75.0	+	+	+	+

NOTE: Peptides that are difficult to solubilize can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution.

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## Certificate of Analysis

SIVmac239 Pol #1  
VLELWERGTLCKAMQ  
Cat#5710 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344741                   **Lot #:** SW05056T  
**Sequence:** Val-Leu-Glu-Leu-Trp-Glu-Arg-Gly-Thr-Leu-Cys-Lys-Ala-Met-Gln  
**Molecular Weight:** 1777.2 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 83.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.02		Gly	1.00	0.99		Thr	1.00	0.99	
Arg	1.00	1.00		Leu	3.00	3.33		Trp	1.00	0.00	*1
Cys	1.00	0.00	*1	Lys	1.00	1.01		Val	1.00	0.93	
Glx	3.00	2.80		Met	1.00	1.01					

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

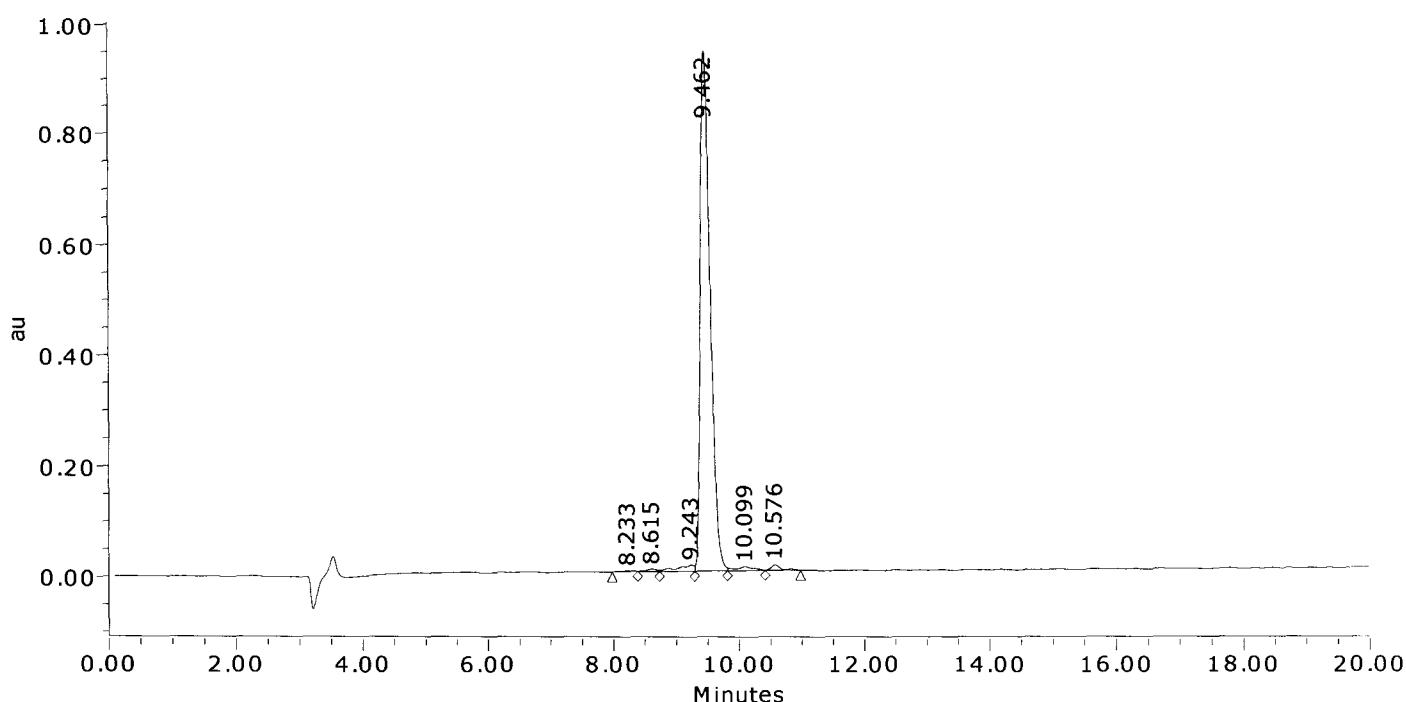
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344741/SW05056T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:54:06 CST  
Sample ID: 344741 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344741\_A Final\_PDA  
Date Acquired: 5/14/2008 10:24:34 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



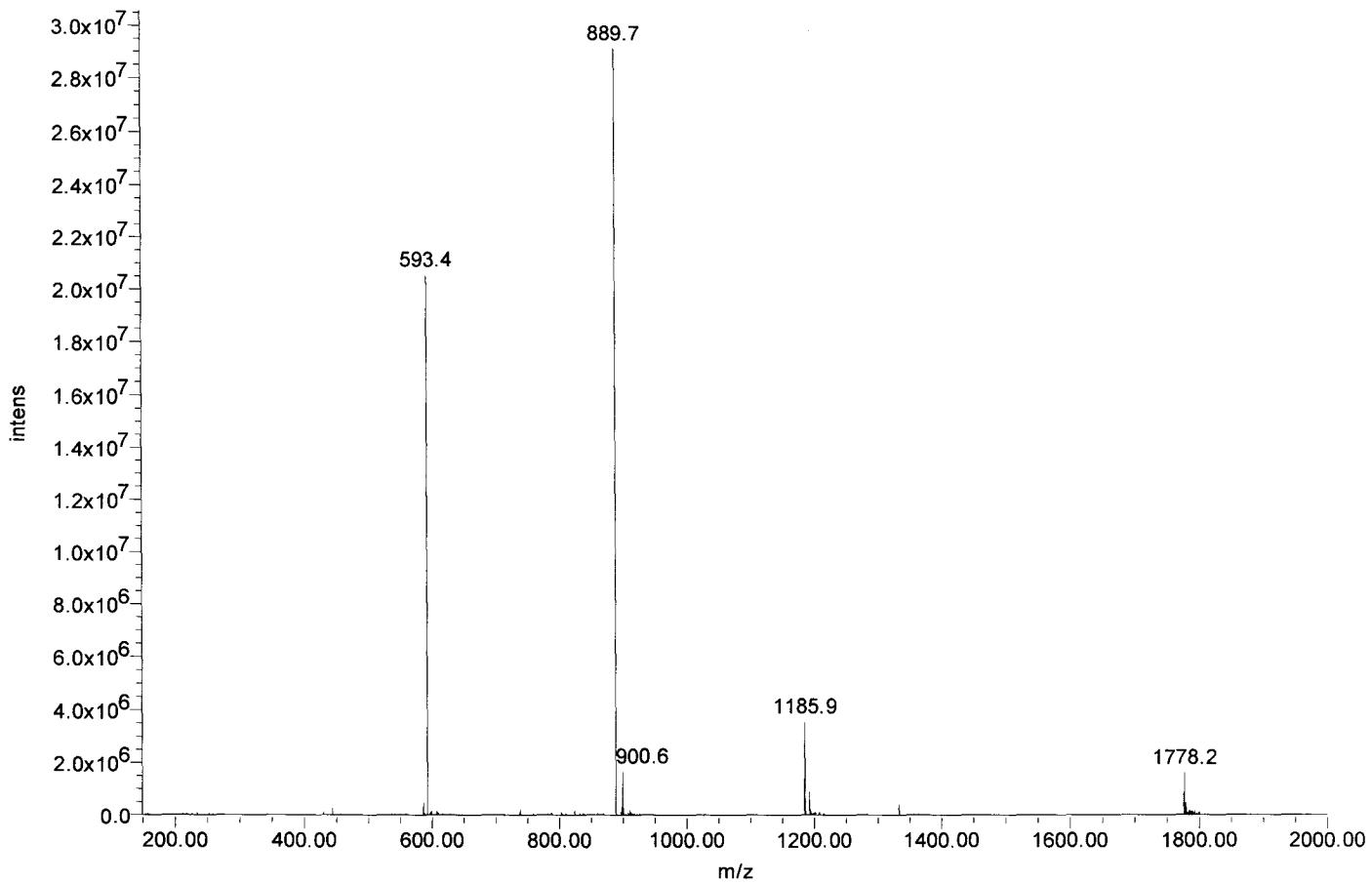
	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.2	8.233	25676	2201
2	0.4	8.615	47911	4117
3	1.9	9.243	211721	11483
4	95.1	9.462	10337671	941328
5	1.3	10.099	146264	7359
6	1.0	10.576	106205	9646
Sum	100.00		10875447	976133.6

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344741      **Lot # :** SW05056T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 13:25:08 CST  
Expected MS : MW: 1777.2  
Acq. Method Set : Import  
Processing Method : 344741\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #2  
WERGTLCKAMQSPKK  
Cat#5711 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344742                   **Lot #:** SW05051T

**Sequence:** Trp-Glu-Arg-Gly-Thr-Leu-Cys-Lys-Ala-Met-Gln-Ser-Pro-Lys-Lys

**Molecular Weight:** 1763.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.5%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 70.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	1.00	0.99		Pro	1.00	0.88	
Arg	1.00	0.97		Leu	1.00	1.12		Ser	1.00	0.84	
Cys	1.00	0.00	*1	Lys	3.00	2.96		Thr	1.00	0.93	
Glx	2.00	1.88		Met	1.00	1.02		Trp	1.00	0.00	*1

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/16/08  
Quality Control Department

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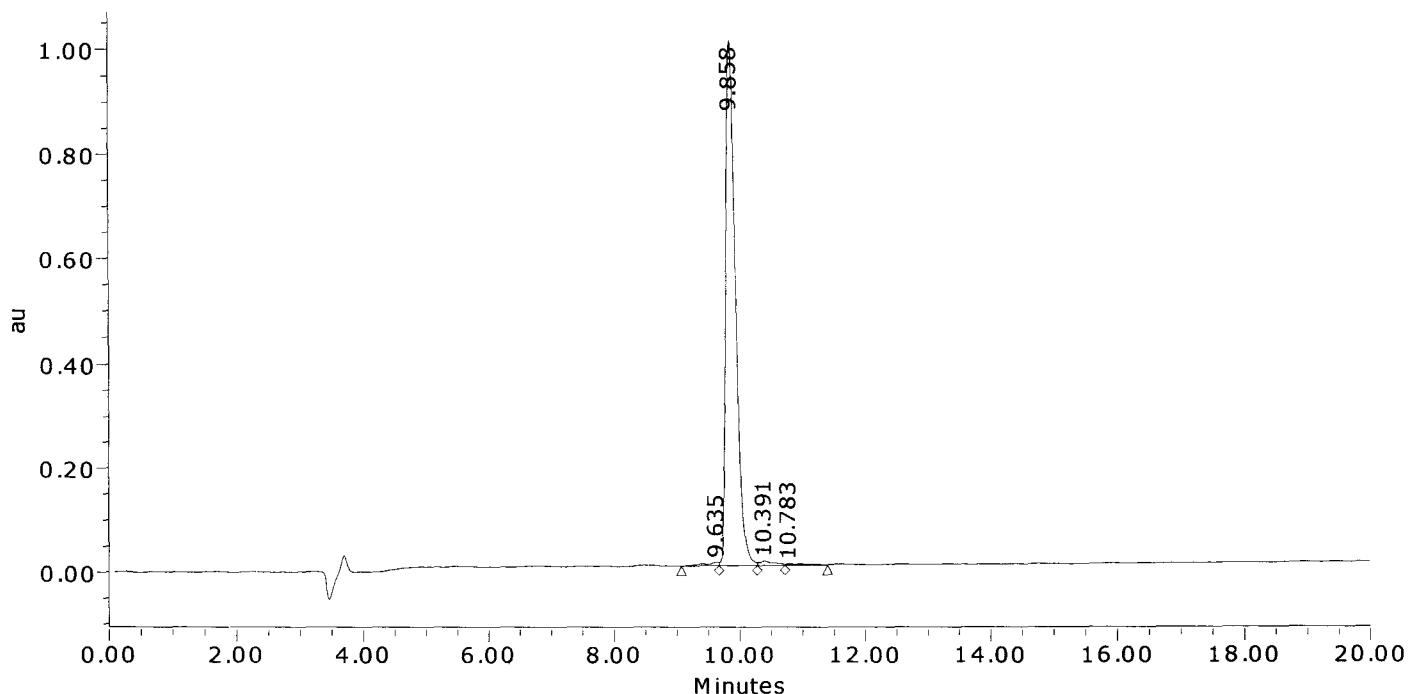
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344742/SW05051T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 9:57:58 CST  
Sample ID: 344742 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344742\_A Final\_PDA  
Date Acquired: 5/13/2008 21:38:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



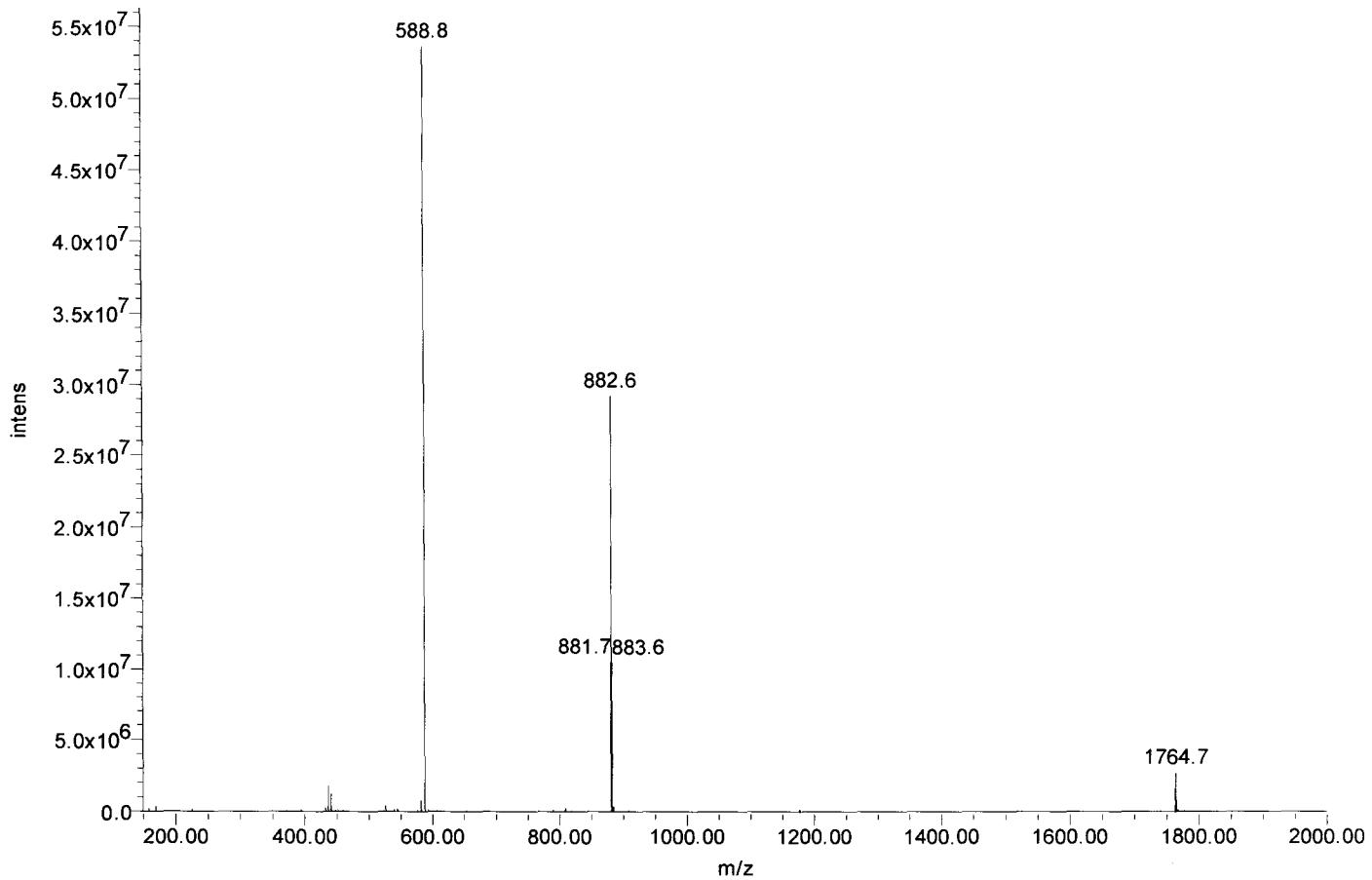
	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.9	9.635	97223	6159
2	97.5	9.858	10783228	1002380
3	1.1	10.391	118023	7128
4	0.6	10.783	61898	2202
Sum	100.00		11060371	1017868.8

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344742      **Lot # :** SW05051T      **Chemist :** Yan Li

Date Acquired : 5/13/2008 21:38:35 CST  
Expected MS : MW: 1763.1  
Acq. Method Set : Import  
Processing Method : 344742\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #3  
TLCKAMQSPKKTGML  
Cat#5712 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344743                   **Lot #:** SW05025T  
**Sequence:** Thr-Leu-Cys-Lys-Ala-Met-Gln-Ser-Pro-Lys-Lys-Thr-Gly-Met-Leu  
**Molecular Weight:** 1637.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Leu	2.00	2.18		Pro	1.00	0.98	
Cys	1.00	0.00	*1	Lys	3.00	2.89		Ser	1.00	0.87	
Glx	1.00	1.01		Met	2.00	2.00		Thr	2.00	1.86	
Gly	1.00	1.00									

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yon2 Li Date: 05/15/08  
Quality Control Department

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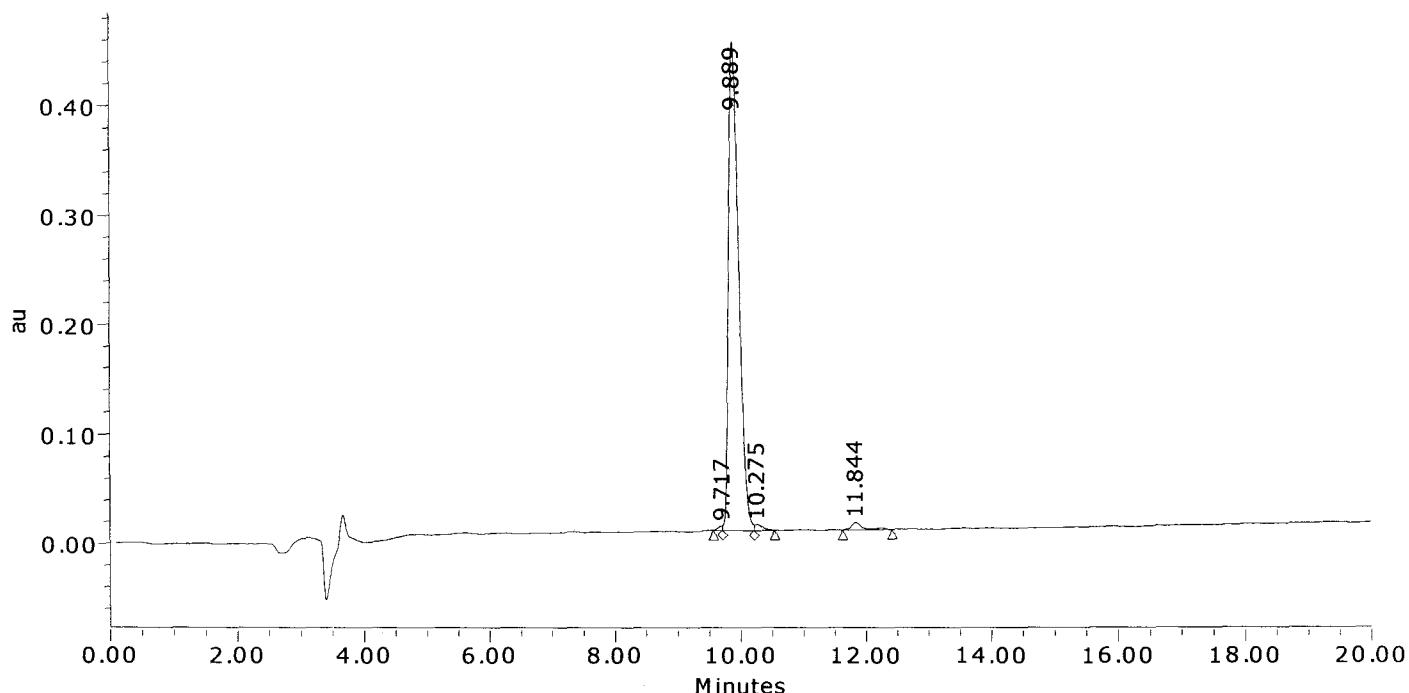
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344743/SW05025T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 10:09:22 CST  
Sample ID: 344743 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344743\_A Final\_PDA  
Date Acquired: 5/12/2008 21:08:16 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18%-38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

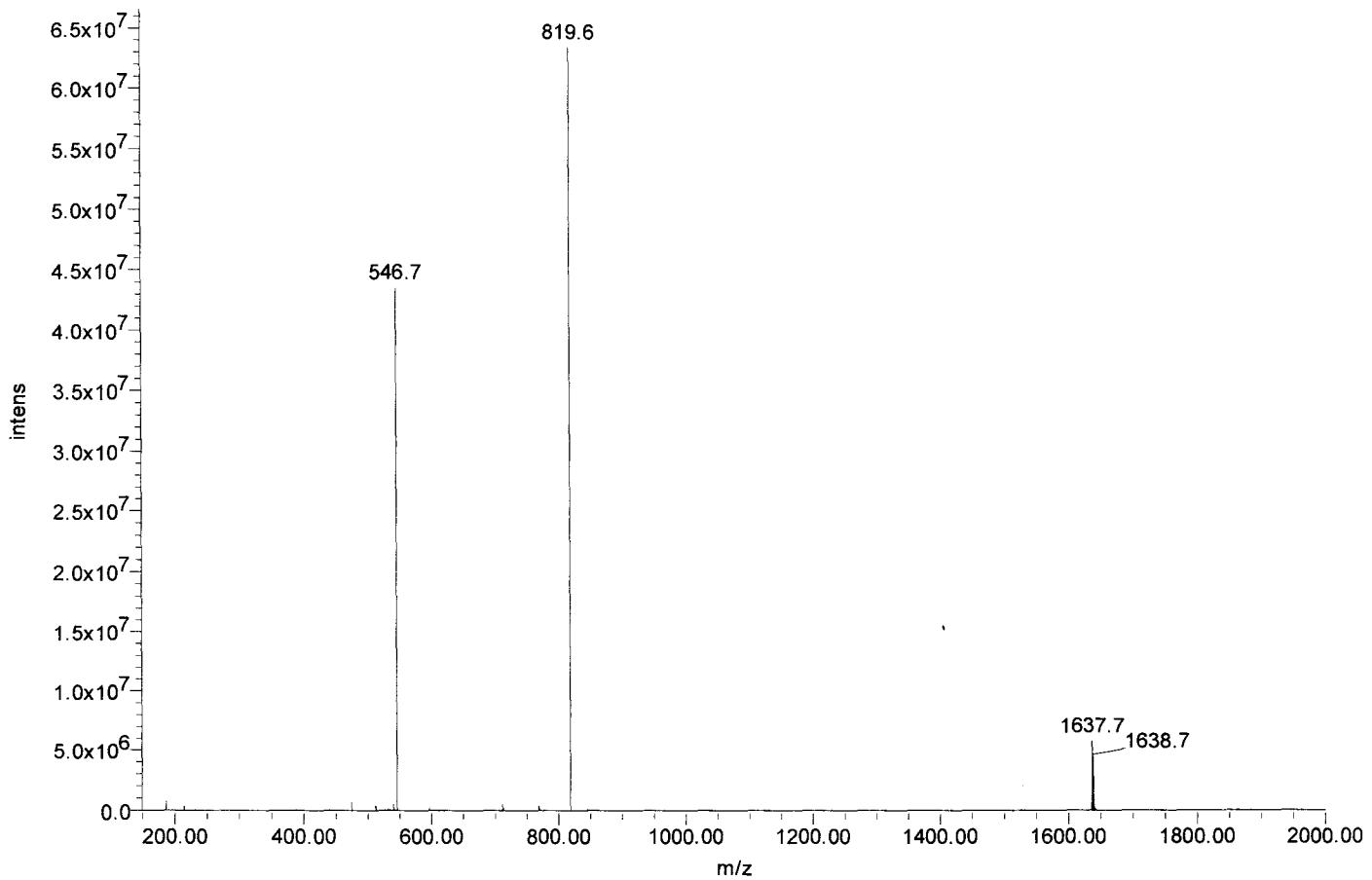


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.4	9.717	19254	4296
2	96.8	9.889	4994926	446598
3	1.0	10.275	49710	5511
4	1.8	11.844	93778	7049
<b>Sum</b>	<b>100.00</b>		<b>5157668</b>	<b>463453.3</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344743      **Lot # :** SW05025T      **Chemist :** Yan Li

Date Acquired : 5/12/2008 21:08:16 CST  
Expected MS : MW: 1637.1  
Acq. Method Set : Import  
Processing Method : 344743\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #4  
AMQSPKKTGMLEMWK  
Cat#5713 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344744                   **Lot #:** SW05060T

**Sequence:** Ala-Met-Gln-Ser-Pro-Lys-Lys-Thr-Gly-Met-Leu-Glu-Met-Trp-Lys

**Molecular Weight:** 1766.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		Lys	3.00	3.08		Ser	1.00	0.81	
Glx	2.00	2.00		Met	3.00	3.11		Thr	1.00	0.98	
Gly	1.00	1.03		Pro	1.00	0.91		Trp	1.00	0.00	*1
Leu	1.00	1.06									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Yan Li

Date: 05/20/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
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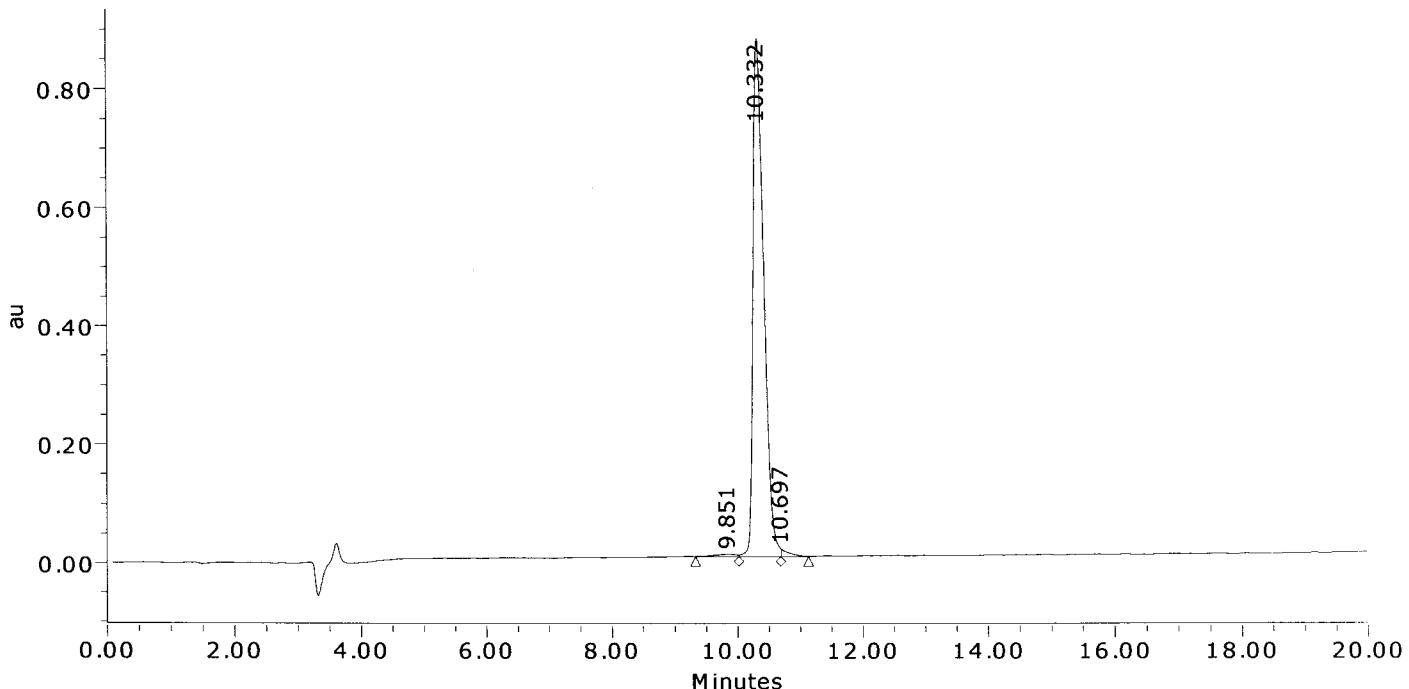
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344744/SW05060T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 14:30:15 CST  
Sample ID: 344744 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344744\_A Final\_PDA  
Date Acquired: 5/14/2008 12:57:11 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.9	9.851	97484	4148
2	98.0	10.332	10407059	874188
3	1.0	10.697	110416	13047
Sum	100.00		10614959	891383.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344744

Lot # : SW05060T

Chemist : Yan Li

Date Acquired :

5/14/2008 12:57:11 CST

Expected MS :

MW: 1766.2

Acq. Method Set :

Import

Processing Method :

344744\_A Final\_MS

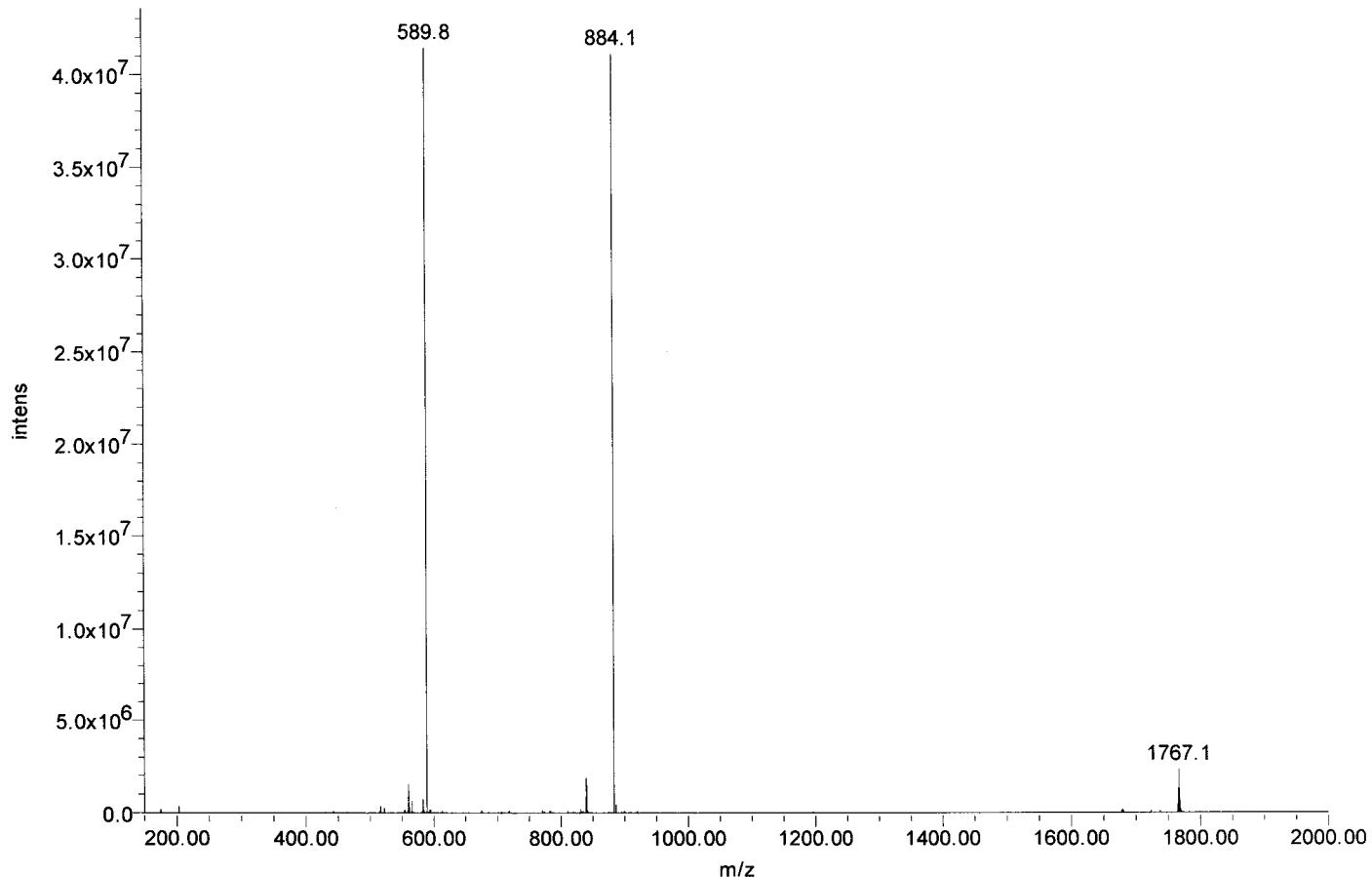
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time : 25.0 Minutes

Flow rate : 1.0 mL/min

Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #5  
PKKTGMLEMWKNGPC  
Cat#5714 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344745                   **Lot #:** SW05065T  
**Sequence:** Pro-Lys-Lys-Thr-Gly-Met-Leu-Glu-Met-Trp-Lys-Asn-Gly-Pro-Cys  
**Molecular Weight:** 1720.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 93.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Leu	1.00	1.12		Pro	2.00	2.07	
Cys	1.00	0.00	*1	Lys	3.00	2.96		Thr	1.00	0.97	
Glx	1.00	0.95		Met	2.00	2.02		Trp	1.00	0.00	*1
Gly	2.00	2.05									

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yonzi Li Date: 05/16/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

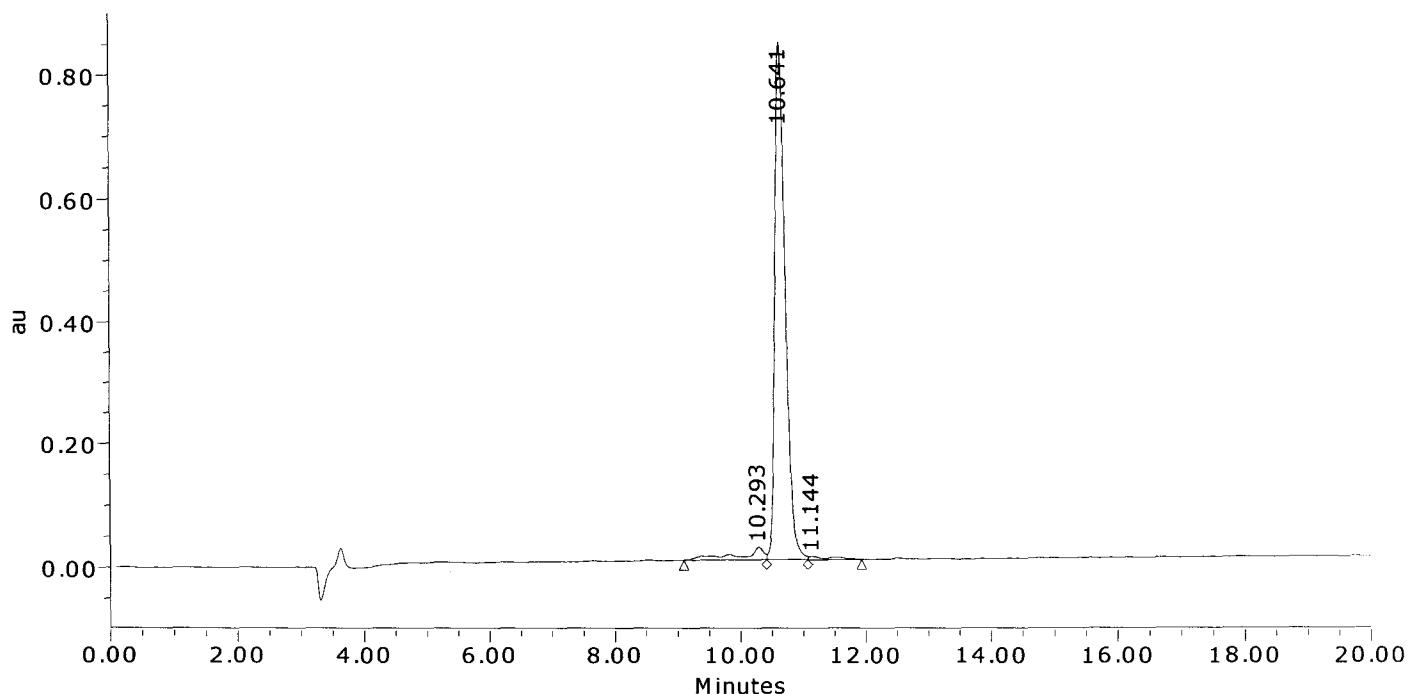
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344745/SW05065T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 12:24:37 CST  
Sample ID: 344745 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344745\_A Final\_PDA  
Date Acquired: 5/14/2008 20:25:27 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

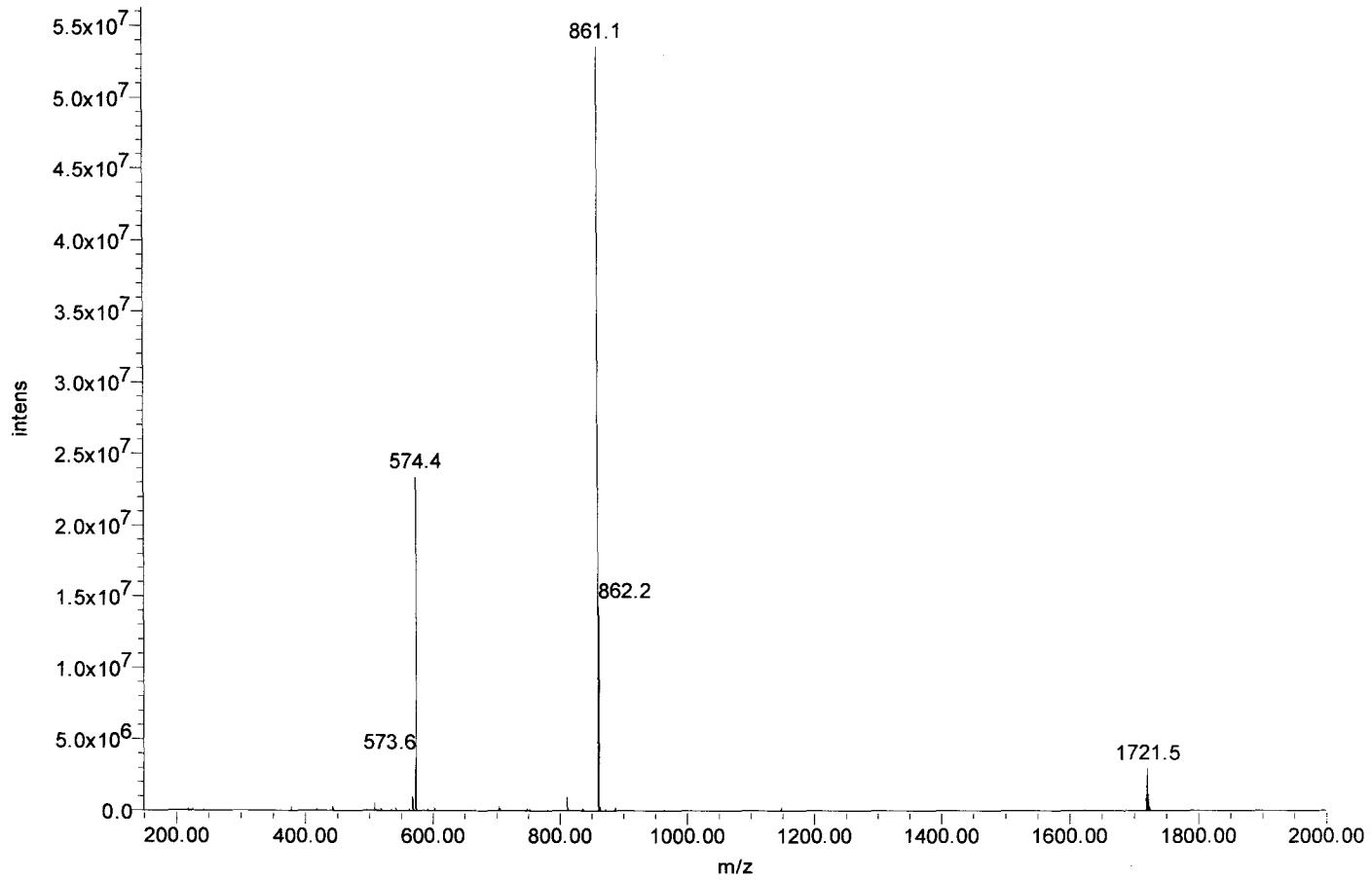


	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	5.2	10.293	537082	20847
2	93.5	10.641	9736117	840737
3	1.3	11.144	140475	5344
Sum	100.00		10413674	866927.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344745      **Lot # :** SW05065T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 20:25:27 CST  
Expected MS : MW: 1720.1  
Acq. Method Set : Import  
Processing Method : 344745\_A\_Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #6  
GMLEMWKNGPCYGQM  
Cat#5715 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344746                   **Lot #:** SW05066T  
**Sequence:** Gly-Met-Leu-Glu-Met-Trp-Lys-Asn-Gly-Pro-Cys-Tyr-Gly-Gln-Met  
**Molecular Weight:** 1745.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 91.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Leu	1.00	1.03		Pro	1.00	0.95	
Cys	1.00	0.00	*1	Lys	1.00	1.00		Trp	1.00	0.00	*1
Glx	2.00	1.92		Met	3.00	2.98		Tyr	1.00	1.14	
Gly	3.00	3.00									

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanzi Li Date: 05/16/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

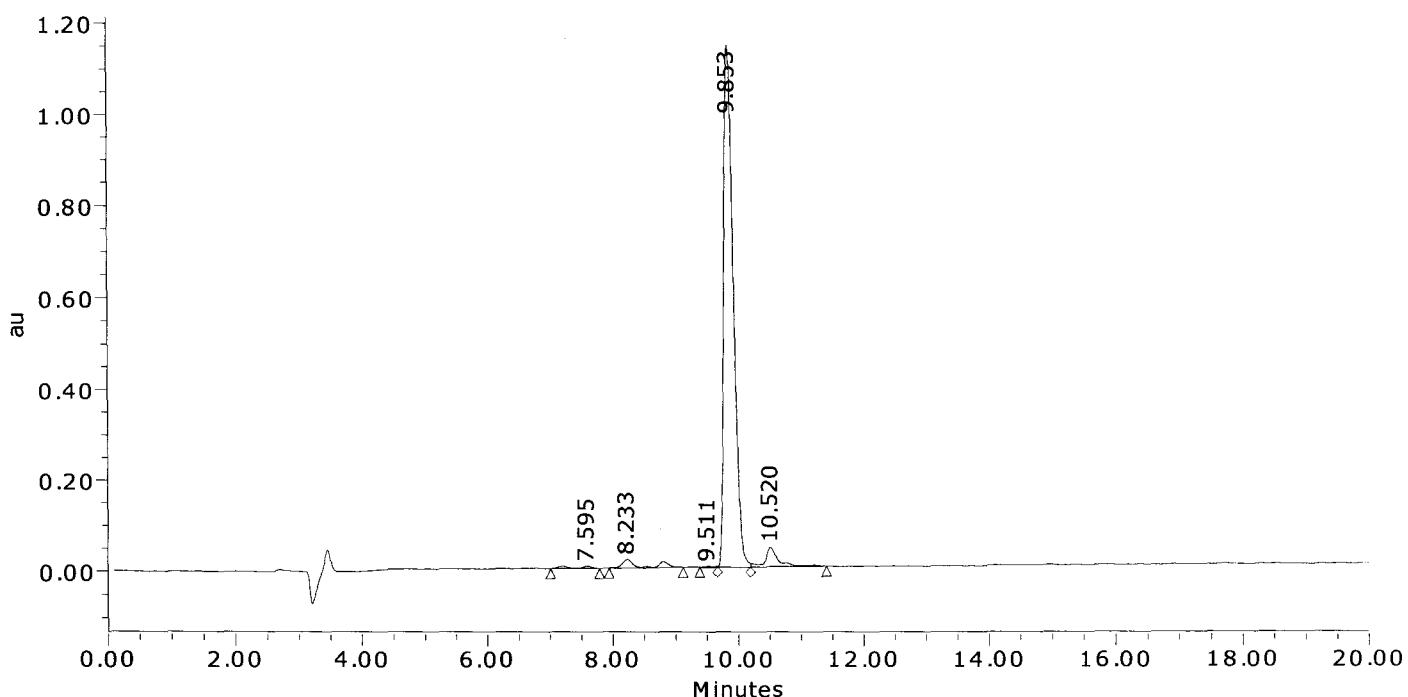
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344746/SW05066T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 9:51:44 CST  
Sample ID: 344746 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344746\_A Final\_PDA  
Date Acquired: 5/14/2008 15:56:31 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.7	7.595	96164	4786
2	2.7	8.233	358626	18486
3	0.2	9.511	20496	2029
4	91.7	9.853	12076013	1141464
5	4.7	10.520	613523	41777
<b>Sum</b>	<b>100.00</b>		<b>13164823</b>	<b>1208541.0</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344746

Lot # : SW05066T

Chemist : Yan Li

Date Acquired :

5/14/2008 15:56:31 CST

Expected MS :

MW: 1745.1

Acq. Method Set :

Import

Processing Method :

344746\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

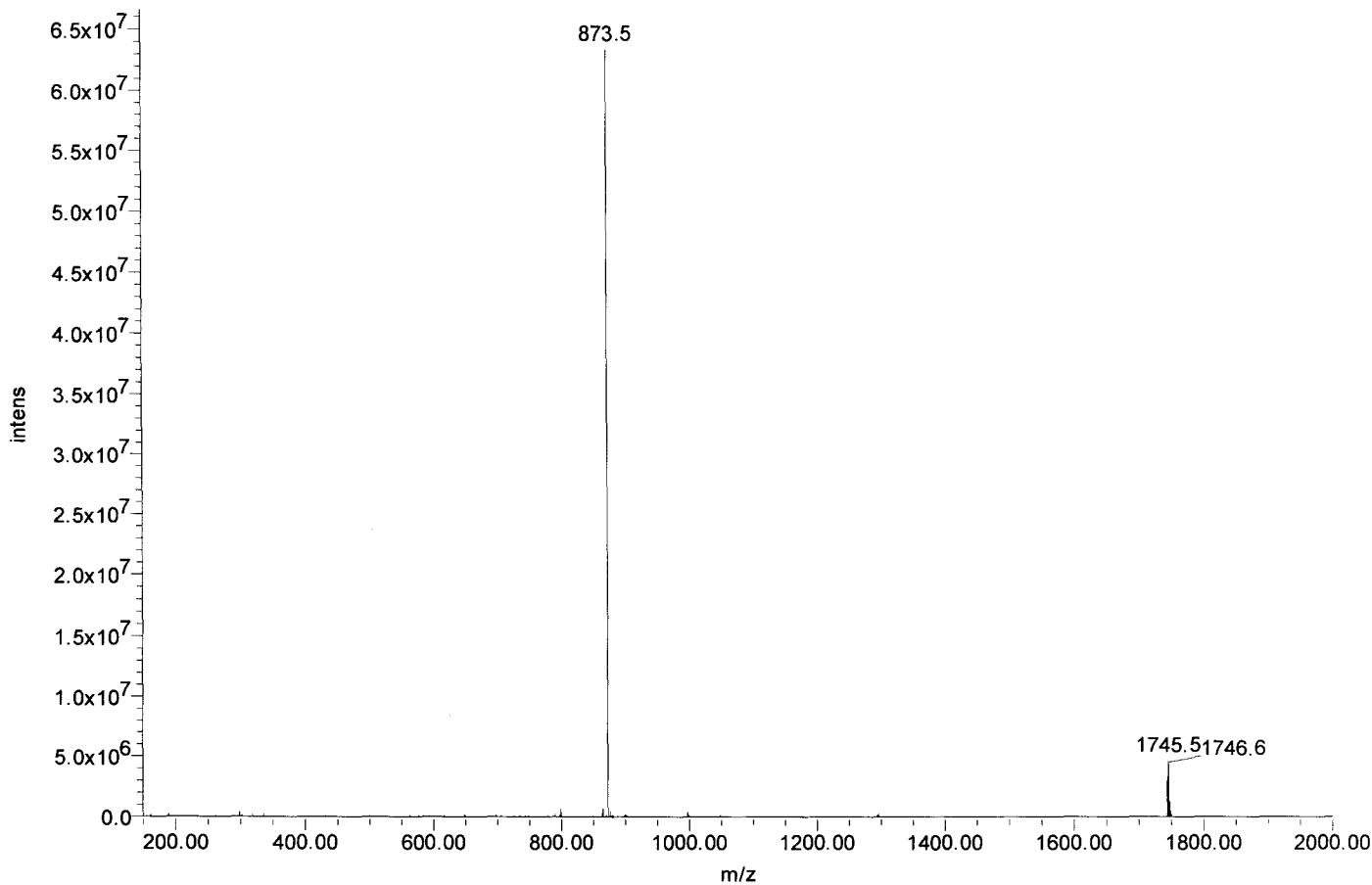
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #7  
MWKNGPCYGQMPQT  
Cat#5716 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344747                   **Lot #:** SW05036T

**Sequence:** Met-Trp-Lys-Asn-Gly-Pro-Cys-Tyr-Gly-Gln-Met-Pro-Arg-Gln-Thr

**Molecular Weight:** 1797.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.3%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 77.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Gly	2.00	1.97	Thr	1.00	1.01
Asx	1.00	0.96		Lys	1.00	0.97	Trp	1.00	0.00
Cys	1.00	0.00	*1	Met	2.00	1.99	Tyr	1.00	1.04
Glx	2.00	1.95		Pro	2.00	1.96			

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/15/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

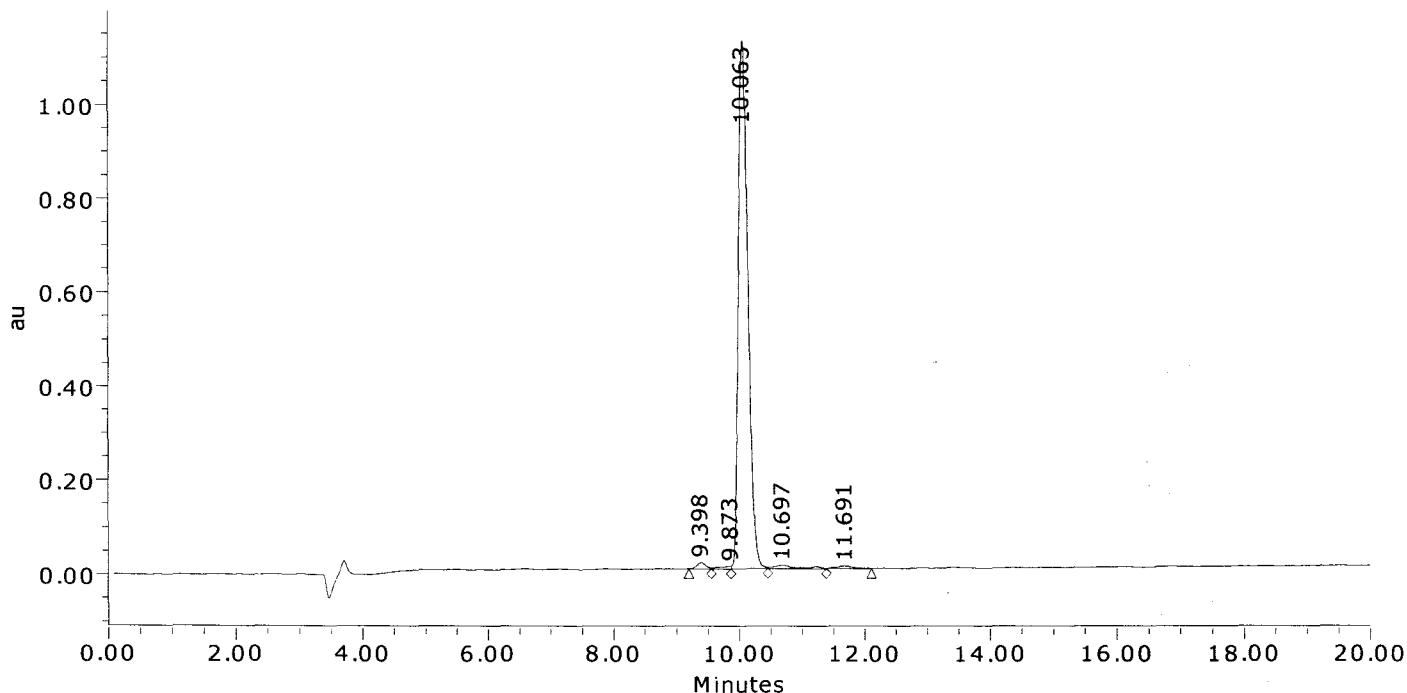
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344747/SW05036T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 12:10:11 CST  
Sample ID: 344747 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344747\_A Final\_PDA  
Date Acquired: 5/13/2008 11:16:53 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.0	9.398	124754	12930
2	0.5	9.873	63468	5721
3	96.3	10.063	11947782	1123958
4	1.5	10.697	189309	7146
5	0.7	11.691	83808	4850
Sum	100.00		12409122	1154605.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344747**

**Lot # : SW05036T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 11:16:53 CST

Expected MS :

MW: 1797.1

Acq. Method Set :

Import

Processing Method :

344747\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -Imfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

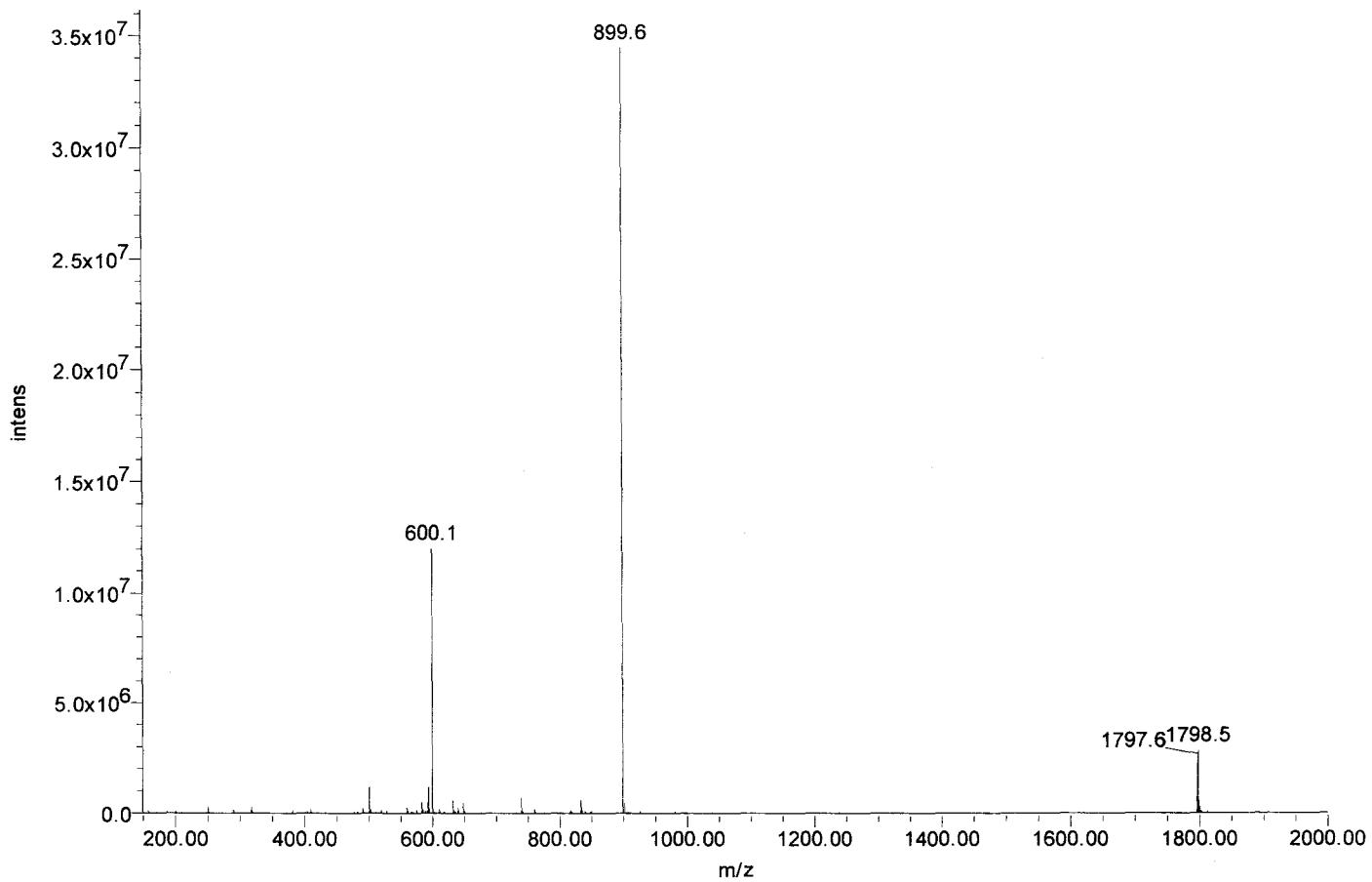
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #8**  
GCPYGQMPRQTGGFF  
Cat#5717 Lot#080132  
Net Wt. 1mg

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	
Arg	1.00	1.00	Gly	4.00	4.04	Pro	2.00	2.02	
Cys	1.00	0.00	*1	Met	1.00	1.03	Thr	1.00	1.00
Glx	2.00	2.00		Phe	2.00	2.07	Tyr	1.00	1.06

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** On 2 Li **Date:** 05/15/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA

1271 Avenida Chelsea  
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Tel: 760-507-8800 Fax: 760-507-8816

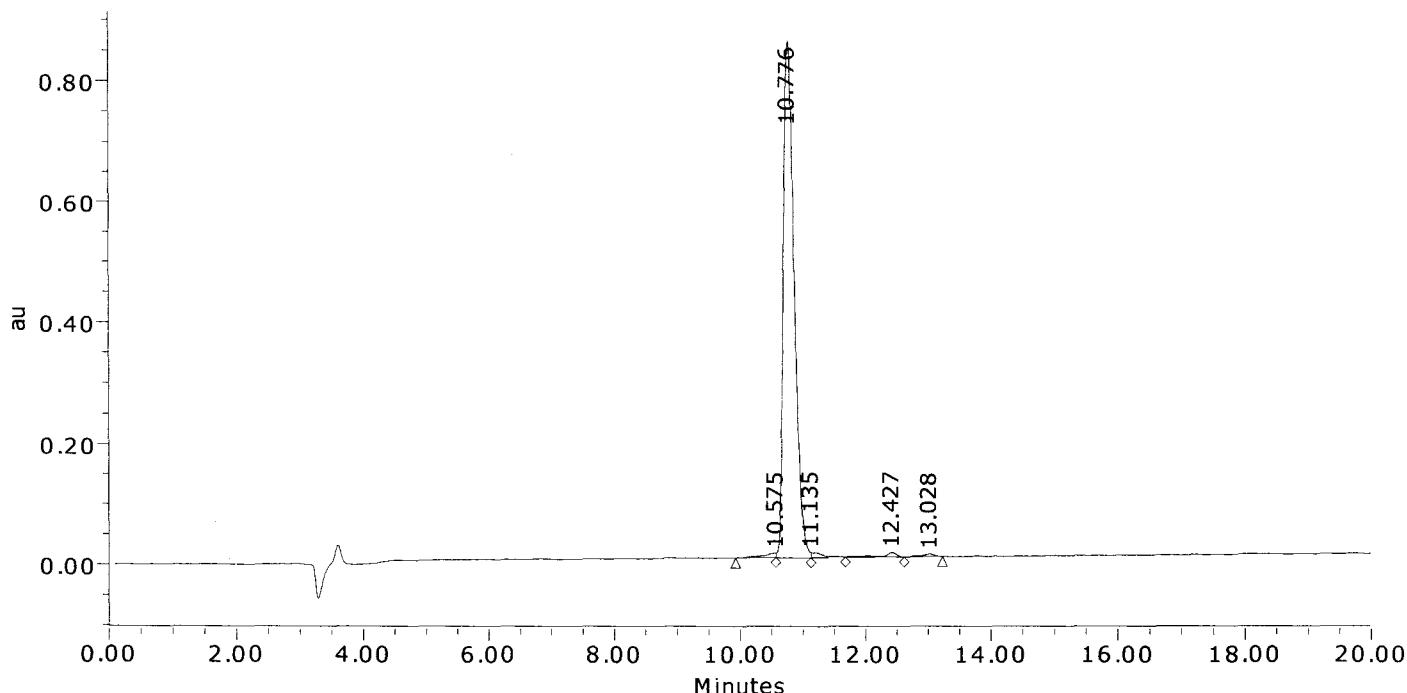
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344748/SW05030T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 11:58:06 CST  
Sample ID: 344748 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344748\_A Final\_PDA  
Date Acquired: 5/13/2008 9:56:02 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.9	10.575	96170	6949
2	96.6	10.776	10283859	853747
3	0.9	11.135	98408	7897
4	1.0	12.427	110192	7572
5	0.5	13.028	57056	4385
<b>Sum</b>	<b>100.00</b>		<b>10645685</b>	<b>880549.1</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344748**

**Lot # : SW05030T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 9:56:02 CST

Expected MS :

MW: 1645.9

Acq. Method Set :

Import

Processing Method :

344748\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

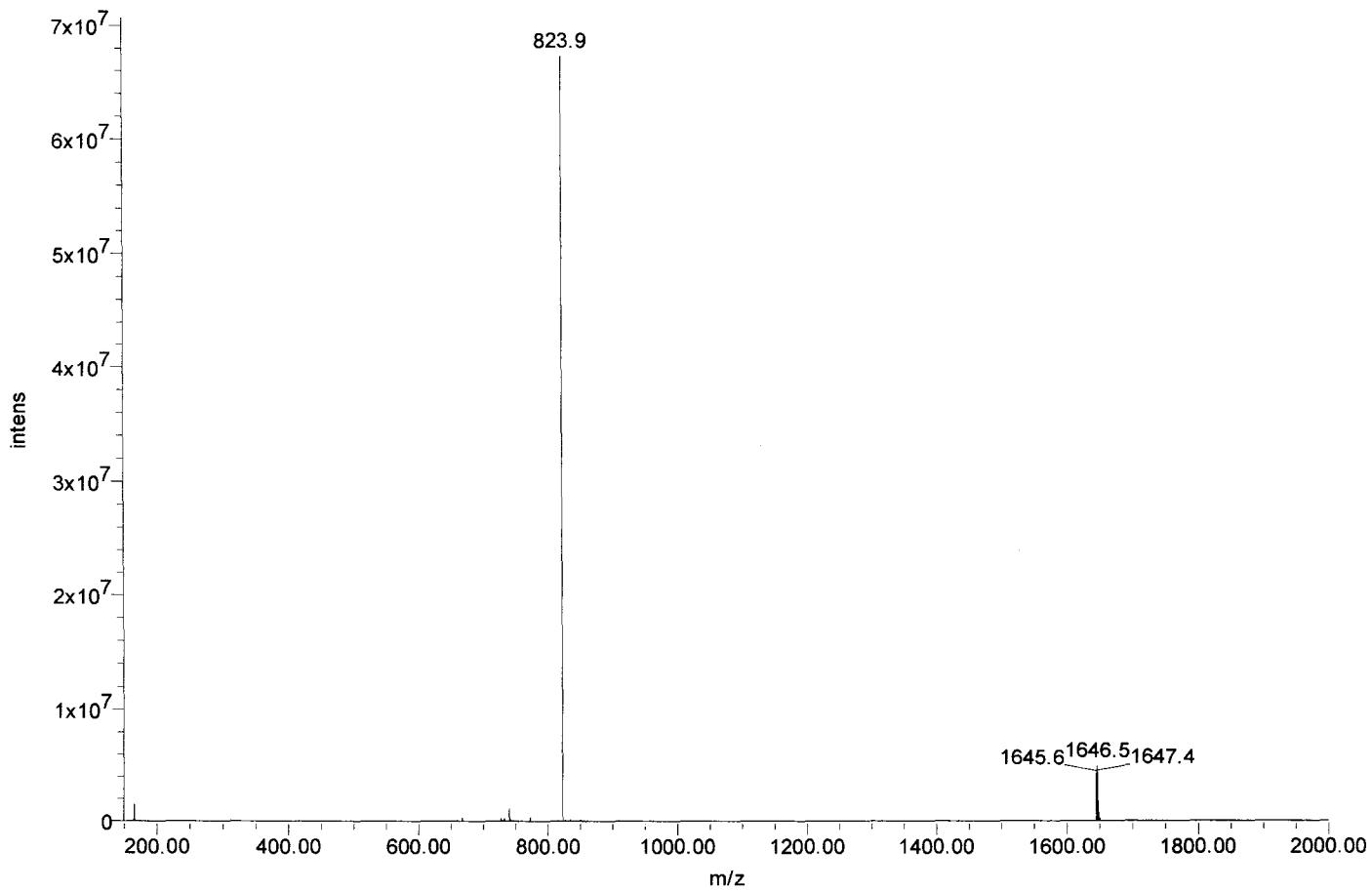
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #9  
GQMPPQTGGFFRPWS  
Cat#5718 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344749                   **Lot #:** SW05043T

**Sequence:** Gly-Gln-Met-Pro-Arg-Gln-Thr-Gly-Gly-Phe-Phe-Arg-Pro-Trp-Ser

**Molecular Weight:** 1752.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 83.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.07		Met	1.00	1.04	Ser	1.00	0.86
Glx	2.00	2.00		Phe	2.00	2.07	Thr	1.00	0.98
Gly	3.00	3.10		Pro	2.00	1.96	Trp	1.00	0.00 *1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li  
Quality Control Department

Date: 05/15/08

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Moriya, Ibaraki 302-0104 Japan  
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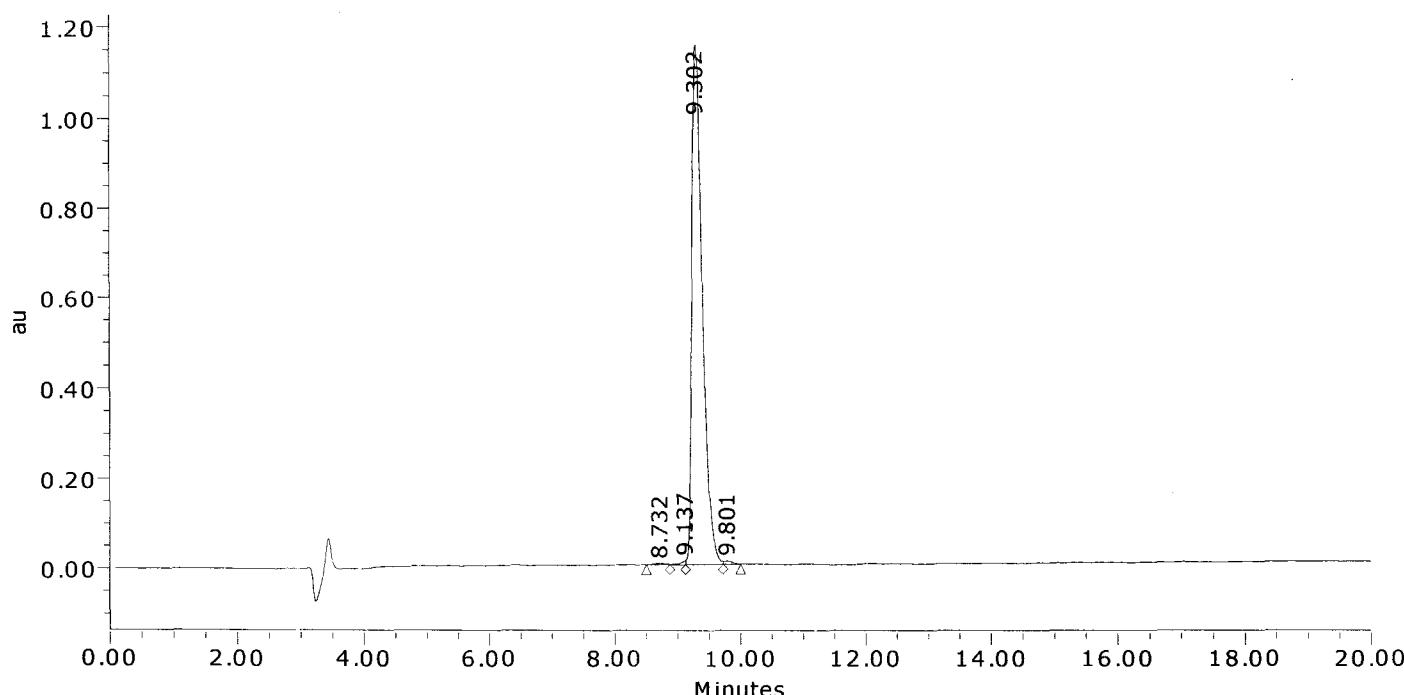
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344749/SW05043T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 14:58:50 CST  
Sample ID: 344749 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344749\_A Final\_PDA  
Date Acquired: 5/13/2008 13:50:13 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.3	8.732	40056	3177
2	0.4	9.137	49681	9658
3	98.8	9.302	13432090	1153593
4	0.5	9.801	71092	7279
Sum	100.00		13592918	1173707.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344749

Lot # : SW05043T

Chemist : Yan Li

Date Acquired :

5/13/2008 16:43:29 CST

Expected MS :

MW: 1752.0

Acq. Method Set :

Import

Processing Method :

344749\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

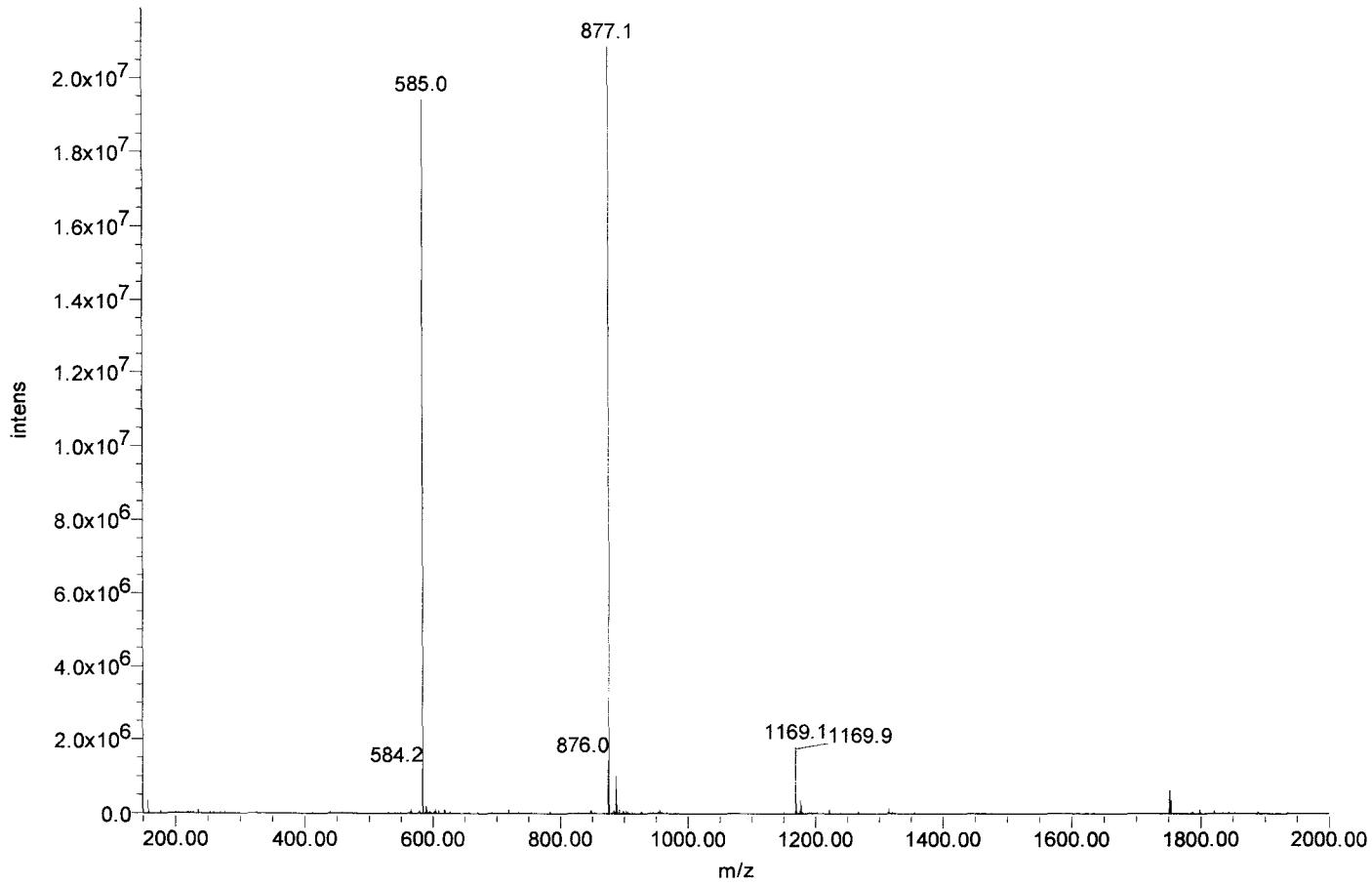
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #10  
RQTGGFPRWSMGKE  
Cat#5719 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344750                   **Lot #:** SW05059T

**Sequence:** Arg-Gln-Thr-Gly-Gly-Phe-Phe-Arg-Pro-Trp-Ser-Met-Gly-Lys-Glu

**Molecular Weight:** 1784.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 90.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 71.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00		Met	1.00	1.03	Ser	1.00	0.87
Glx	2.00	1.84		Phe	2.00	1.97	Thr	1.00	0.90
Gly	3.00	2.97		Pro	1.00	0.96	Trp	1.00	0.00
Lys	1.00	0.98							*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan Li*  
Quality Control Department

Date: 05/16/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

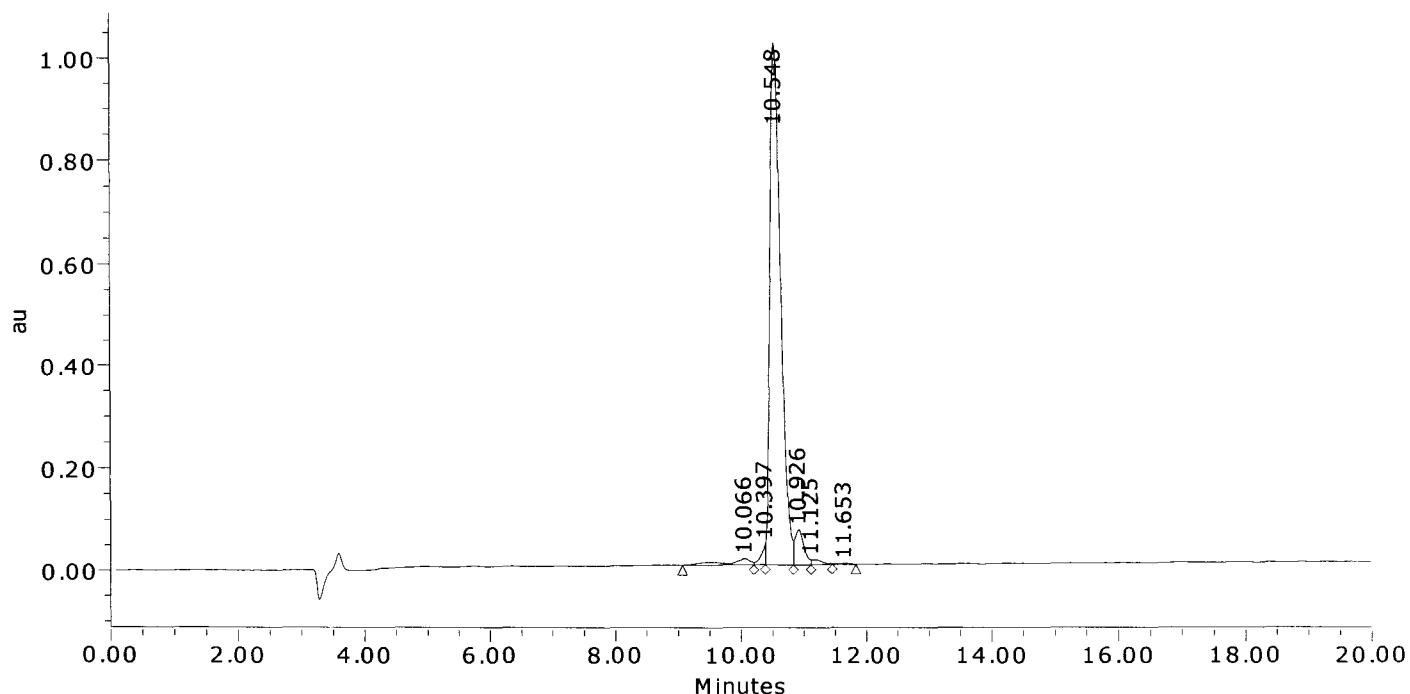
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344750/SW05059T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 13:15:02 CST  
Sample ID: 344750 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344750\_A Final\_PDA  
Date Acquired: 5/14/2008 11:42:06 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.4	10.066	327429	12254
2	1.4	10.397	187183	41791
3	90.0	10.548	12252561	1020613
4	5.2	10.926	705240	69120
5	0.9	11.125	122273	9991
6	0.1	11.653	16642	1108
Sum	100.00		13611328	1154877.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344750**

**Lot # : SW05059T**

**Chemist : Yan Li**

Date Acquired :

5/14/2008 11:42:06 CST

Expected MS :

MW: 1784.0

Acq. Method Set :

Import

Processing Method :

344750\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

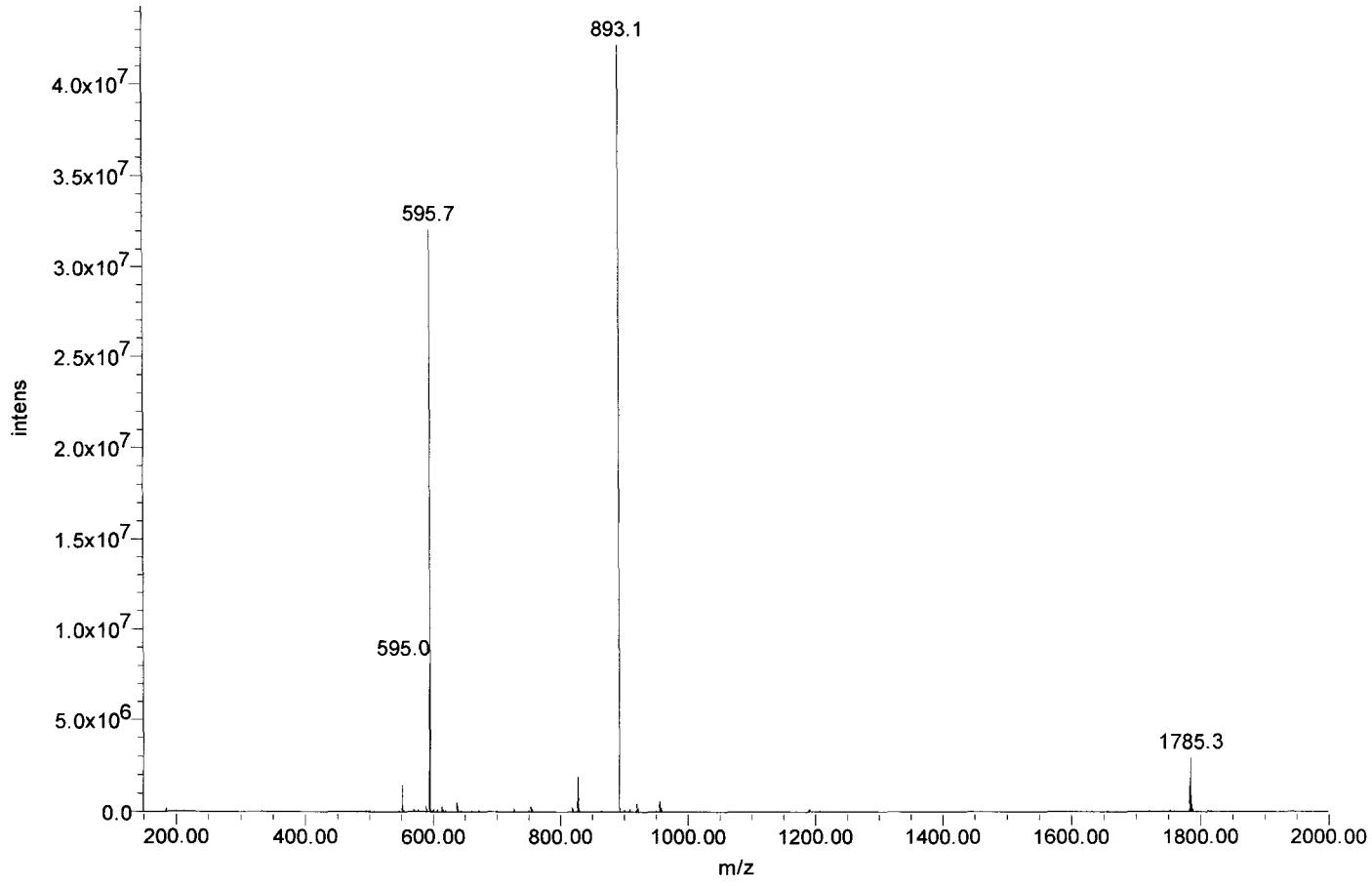
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #11  
GFFRPWSMGKEAPQF  
Cat#5720 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344751                   **Lot #:** SW05061T

**Sequence:** Gly-Phe-Phe-Arg-Pro-Trp-Ser-Met-Gly-Lys-Glu-Ala-Pro-Gln-Phe

**Molecular Weight:** 1785.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 83.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Lys	1.00	0.95		Pro	2.00	1.96	
Arg	1.00	0.93		Met	1.00	0.98		Ser	1.00	0.85	
Glx	2.00	2.20		Phe	3.00	2.79		Trp	1.00	0.00	*1
Gly	2.00	1.87									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/20/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

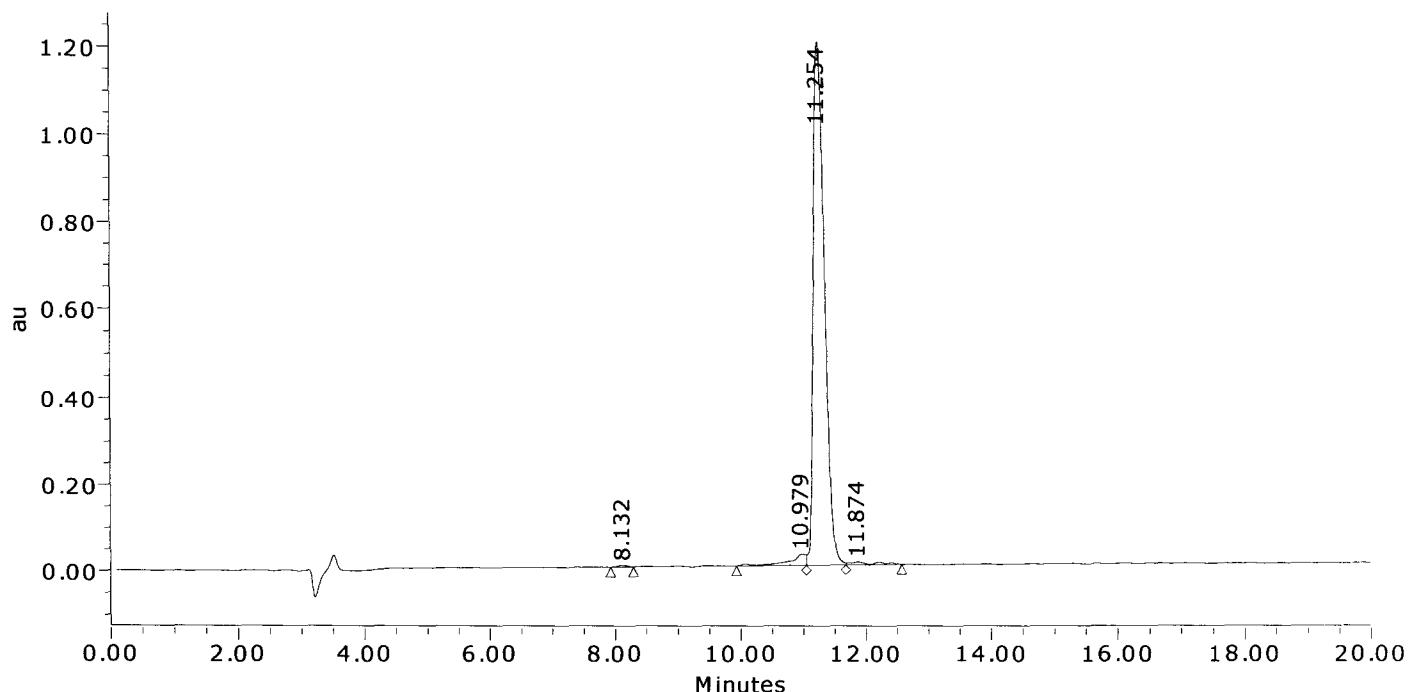
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344751/SW05061T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 10:03:52 CST  
Sample ID: 344751 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344751\_A Final\_PDA  
Date Acquired: 5/14/2008 16:34:07 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



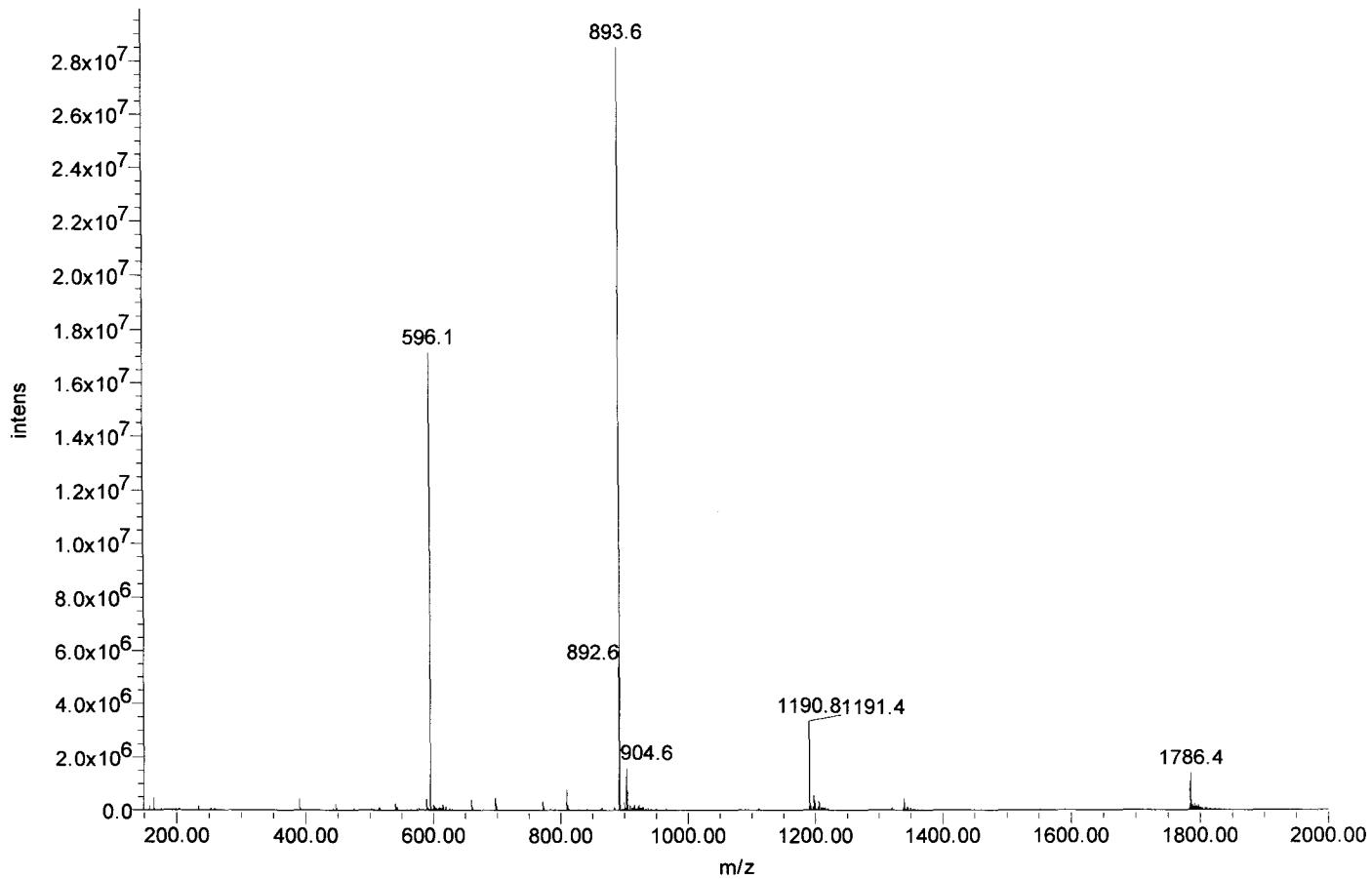
	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.3	8.132	48272	4495
2	3.2	10.979	495392	26195
3	95.2	11.254	14837388	1198538
4	1.3	11.874	207732	6984
<b>Sum</b>	<b>100.00</b>		<b>15588784</b>	<b>1236213.1</b>

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344751      **Lot # :** SW05061T      **Chemist :** Yan Li

Date Acquired : 5/15/2008 13:31:50 CST  
Expected MS : MW: 1785.1  
Acq. Method Set : Import  
Processing Method : 344751\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #12  
PWSMGKEAPQFPHGS  
Cat#5721 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344752                   **Lot #:** SW05039T  
**Sequence:** Pro-Trp-Ser-Met-Gly-Lys-Glu-Ala-Pro-Gln-Phe-Pro-His-Gly-Ser  
**Molecular Weight:** 1655.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 75.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		Lys	1.00	1.00	Pro	3.00	3.16
Glx	2.00	2.01		Met	1.00	1.02	Ser	2.00	1.62
Gly	2.00	2.00		Phe	1.00	1.02	Trp	1.00	0.00
His	1.00	1.01							*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/15/08

Quality Control Department

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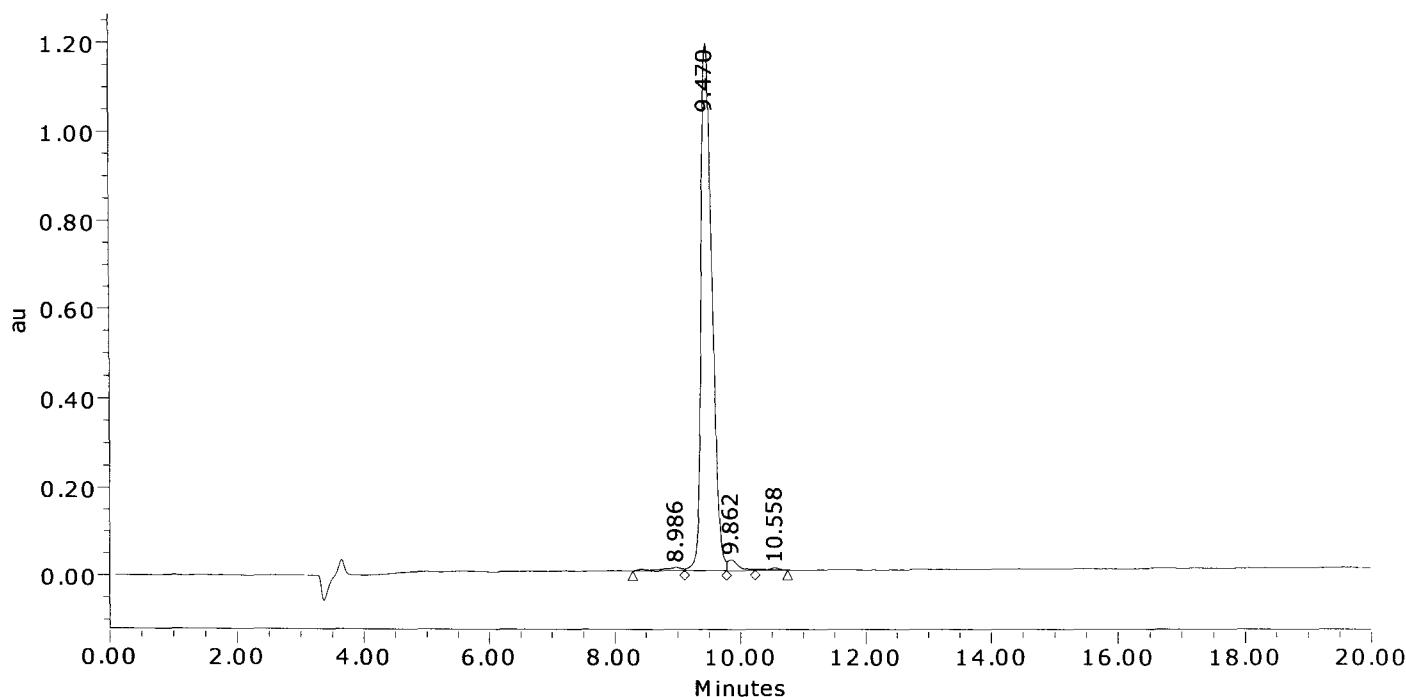
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344752/SW05039T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:37:38 CST  
Sample ID: 344752 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344752\_A Final\_PDA  
Date Acquired: 5/13/2008 20:58:57 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	1.2	8.986	180533	7094
2	96.4	9.470	14483580	1187795
3	1.9	9.862	291654	24287
4	0.5	10.558	68732	5481
Sum	100.00		15024499	1224657.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344752

Lot # : SW05039T

Chemist : Yan Li

Date Acquired :

5/13/2008 20:58:57 CST

Expected MS :

MW: 1655.9

Acq. Method Set :

Import

Processing Method :

344752\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

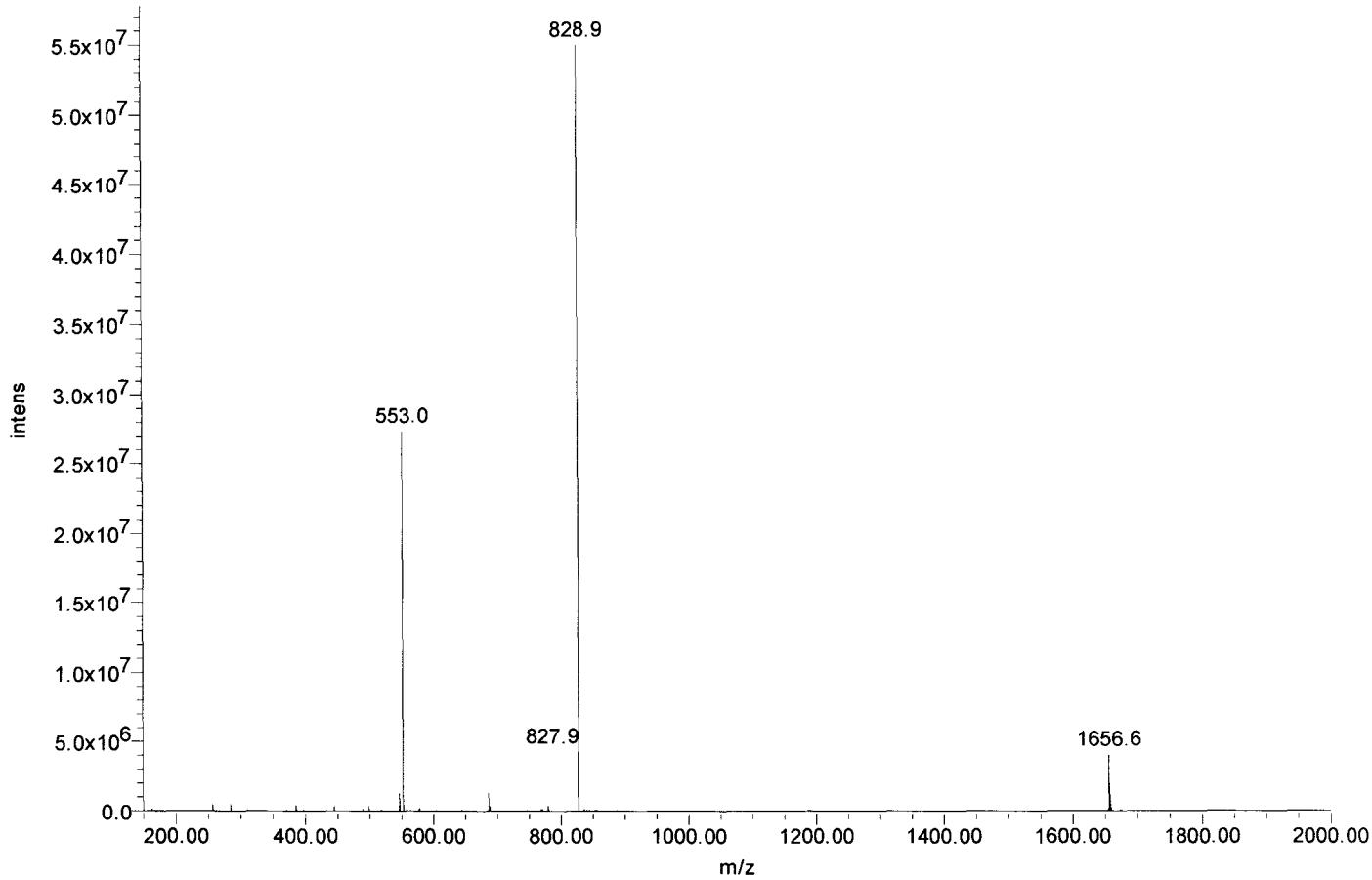
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #13  
GKEAPQFPHGSSASG  
Cat#5722 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344753                   **Lot #:** SW05014T

**Sequence:** Gly-Lys-Glu-Ala-Pro-Gln-Phe-Pro-His-Gly-Ser-Ser-Ala-Ser-Gly

**Molecular Weight:** 1456.6 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 76.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		His	1.00	1.01		Pro	2.00	2.20	
Glx	2.00	1.98		Lys	1.00	0.99		Ser	3.00	2.45	
Gly	3.00	2.99		Phe	1.00	1.01					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/14/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

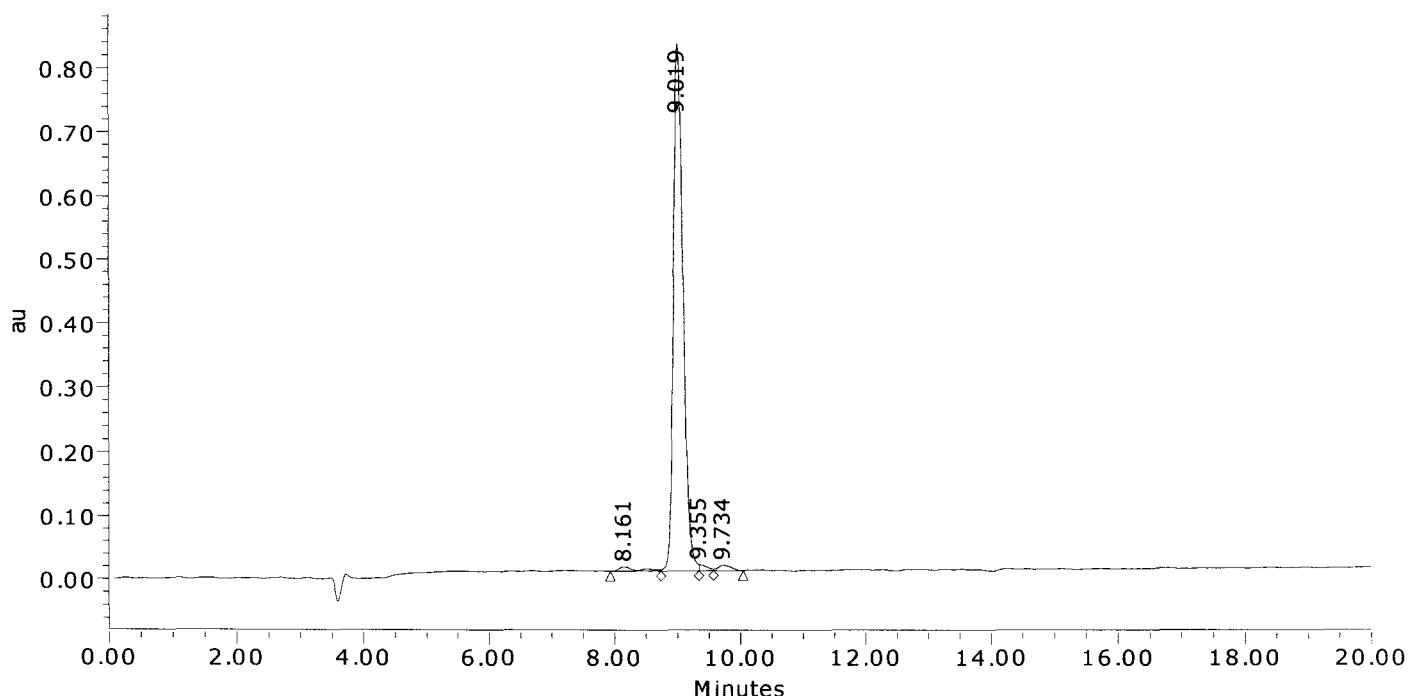
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344753/SW05014T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 16:33:21 CST  
Sample ID: 344753 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344753\_A Final\_PDA  
Date Acquired: 5/12/2008 16:02:40 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 11% -31% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.6	8.161	151329	7215
2	96.1	9.019	8870794	824772
3	0.9	9.355	85344	9631
4	1.3	9.734	124433	8654
Sum	100.00		9231901	850272.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344753**

**Lot # : SW05014T**

**Chemist : Yan Li**

Date Acquired :

5/12/2008 16:02:40 CST

Expected MS :

MW: 1456.6

Acq. Method Set :

Import

Processing Method :

344753\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

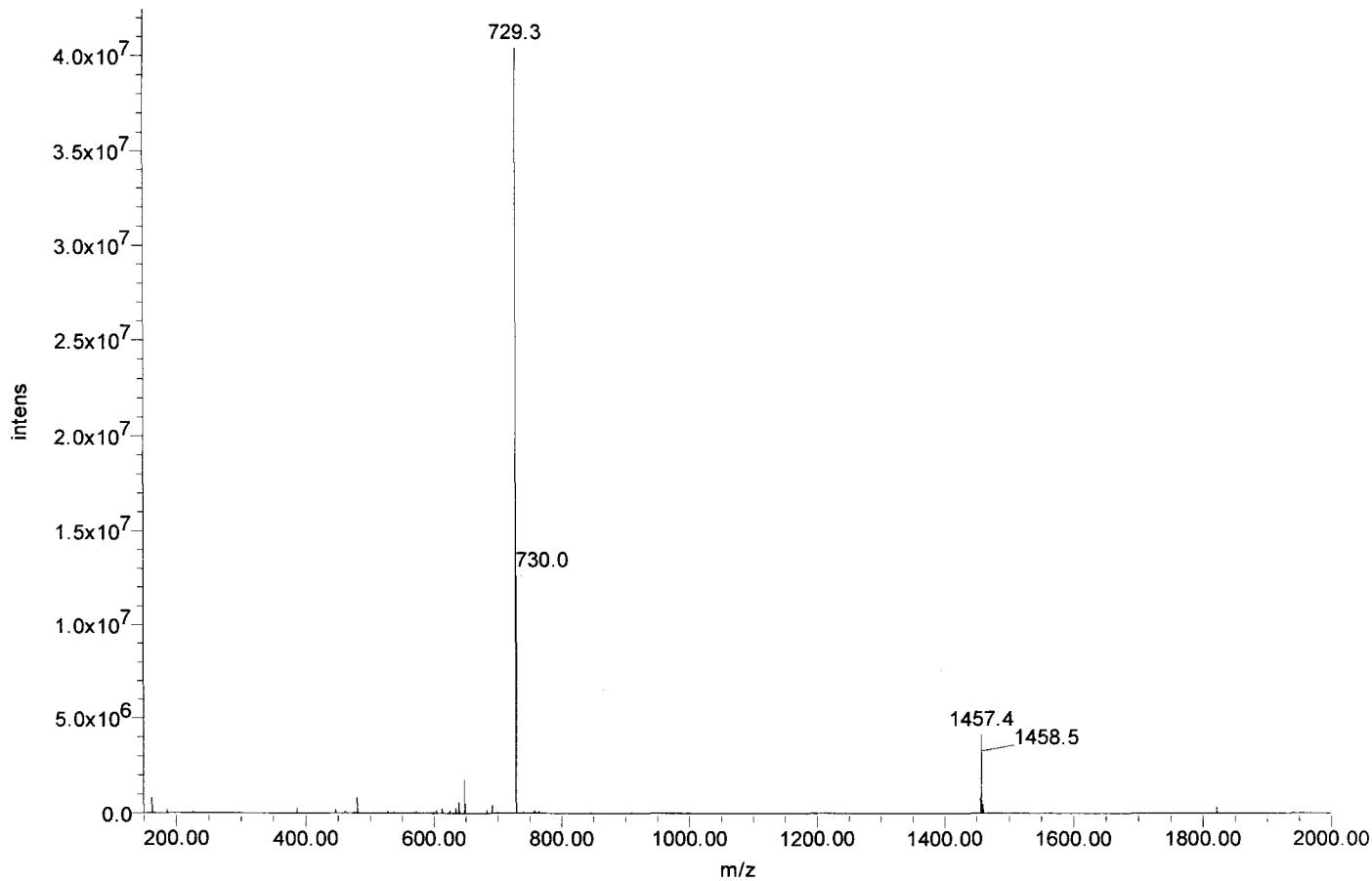
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #14  
PQFPHGSSASGADAN  
Cat#5723 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344754                   **Lot #:** SW05032T

**Sequence:** Pro-Gln-Phe-Pro-His-Gly-Ser-Ser-Ala-Ser-Gly-Ala-Asp-Ala-Asn

**Molecular Weight:** 1442.5 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.5%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 86.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	2.93		Gly	2.00	1.99		Pro	2.00	2.13	
Asx	2.00	2.00		His	1.00	1.00		Ser	3.00	2.44	
Glx	1.00	1.03		Phe	1.00	1.00					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/15/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

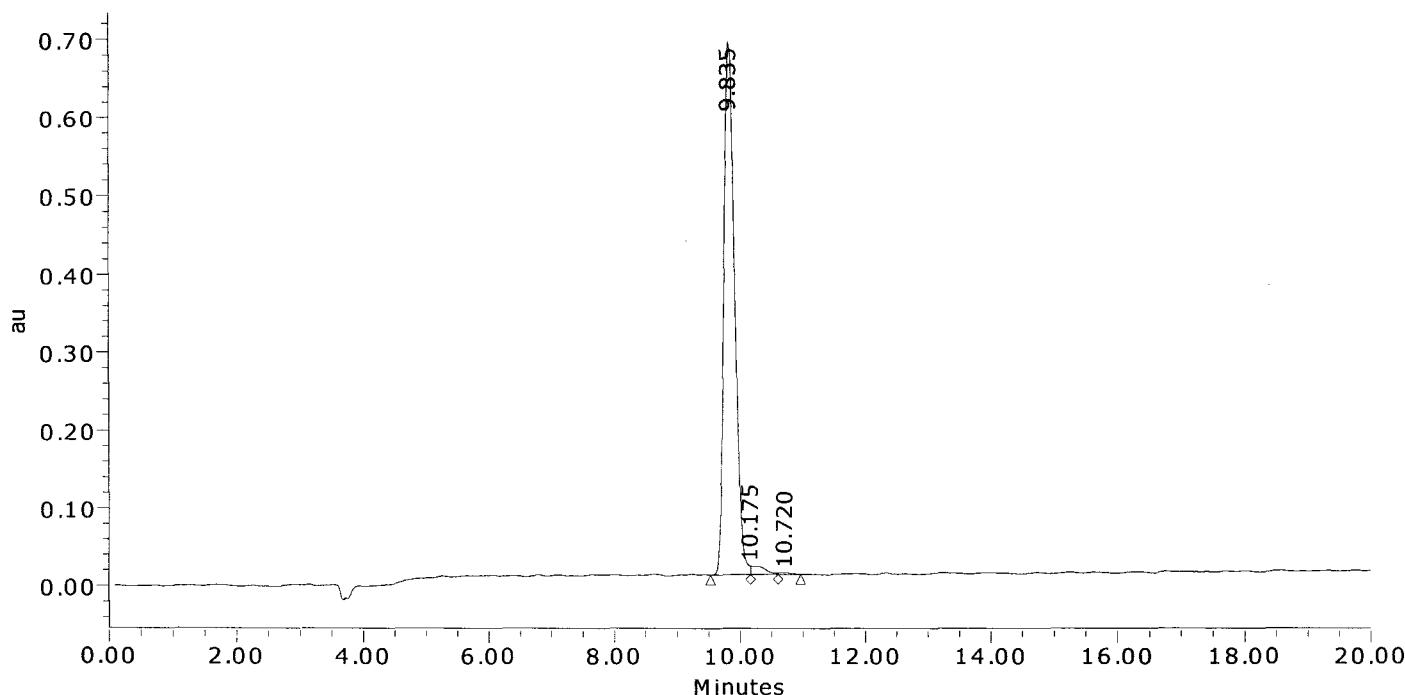
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344754/SW05032T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 16:03:08 CST  
Sample ID: 344754 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344754\_A Final\_PDA  
Date Acquired: 5/13/2008 15:09:20 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 9% -29% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	97.5	9.835	8140343	682771
2	2.1	10.175	176011	10862
3	0.4	10.720	29534	2088
<b>Sum</b>	<b>100.00</b>		<b>8345887</b>	<b>695721.4</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344754**

**Lot # : SW05032T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 15:09:20 CST

Expected MS :

MW: 1442.5

Acq. Method Set :

Import

Processing Method :

344754\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

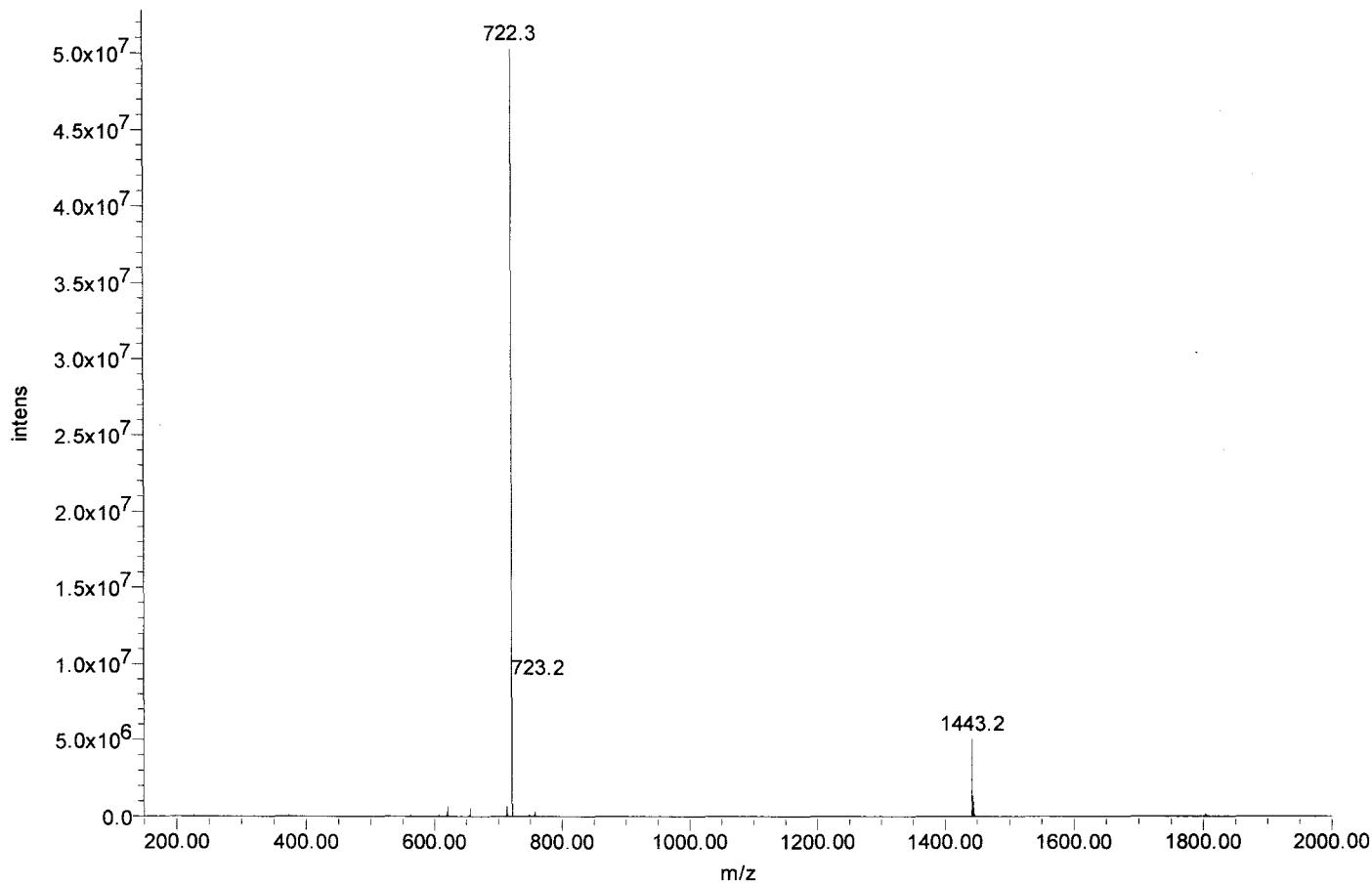
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #15  
HGSSASGADANCSPR  
Cat#5724 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344755                   **Lot #:** SW05028T

**Sequence:** His-Gly-Ser-Ser-Ala-Ser-Gly-Ala-Asp-Ala-Asn-Cys-Ser-Pro-Arg

**Molecular Weight:** 1416.4 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 85.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 77.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	3.07		Cys	1.00	0.00	*1	Pro	1.00	1.11	
Arg	1.00	1.00		Gly	2.00	1.97		Ser	4.00	3.37	
Asx	2.00	2.04		His	1.00	0.86					

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan Li*

Date: 05/15/08

Quality Control Department

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Tel: 81-297-45-6311 Fax: 81-297-45-6353

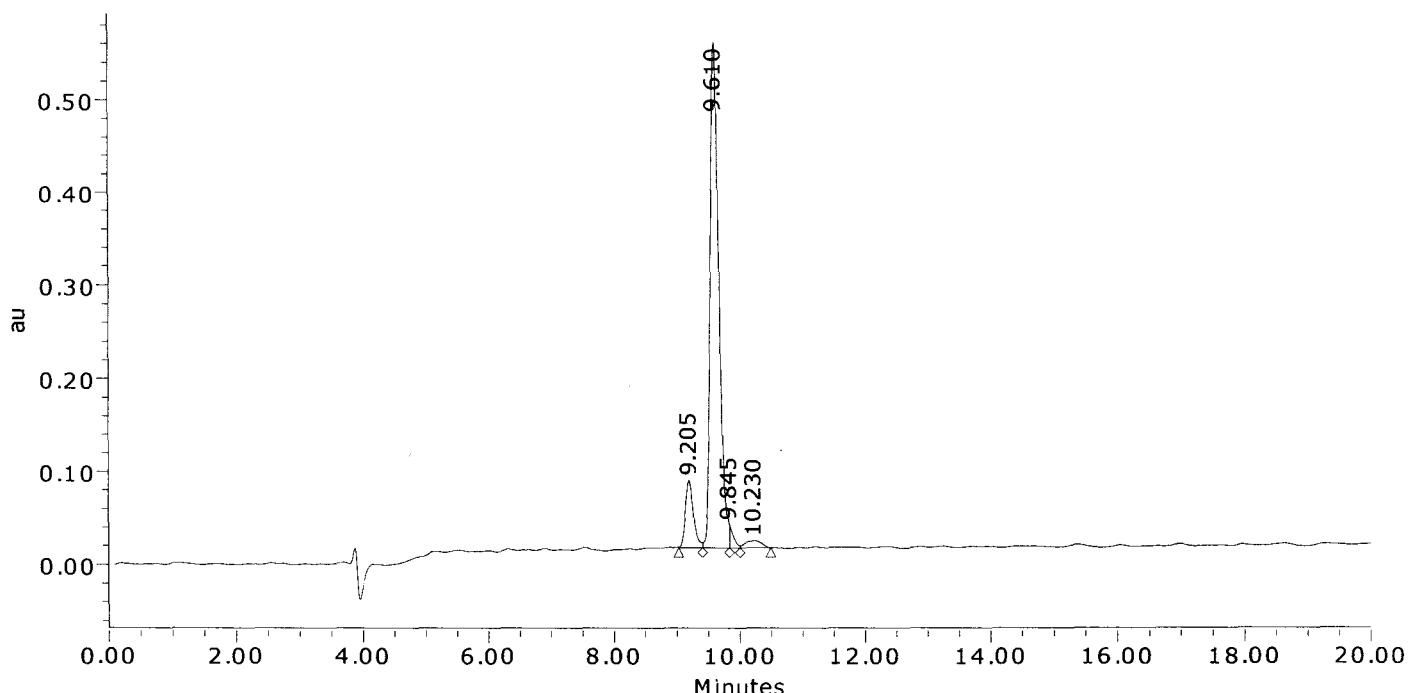
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344755/SW05028T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 11:19:31 CST  
Sample ID: 344755 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344755\_A Final\_PDA  
Date Acquired: 5/13/2008 1:41:50 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 6% -26% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	10.5	9.205	640536	72240
2	85.7	9.610	5210461	543674
3	1.7	9.845	101245	24358
4	2.1	10.230	126543	6962
Sum	100.00		6078784	647234.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344755**

Lot # : SW05028T

Chemist : Yan Li

Date Acquired :

5/13/2008 1:41:50 CST

Expected MS :

MW: 1416.4

Acq. Method Set :

Import

Processing Method :

344755\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

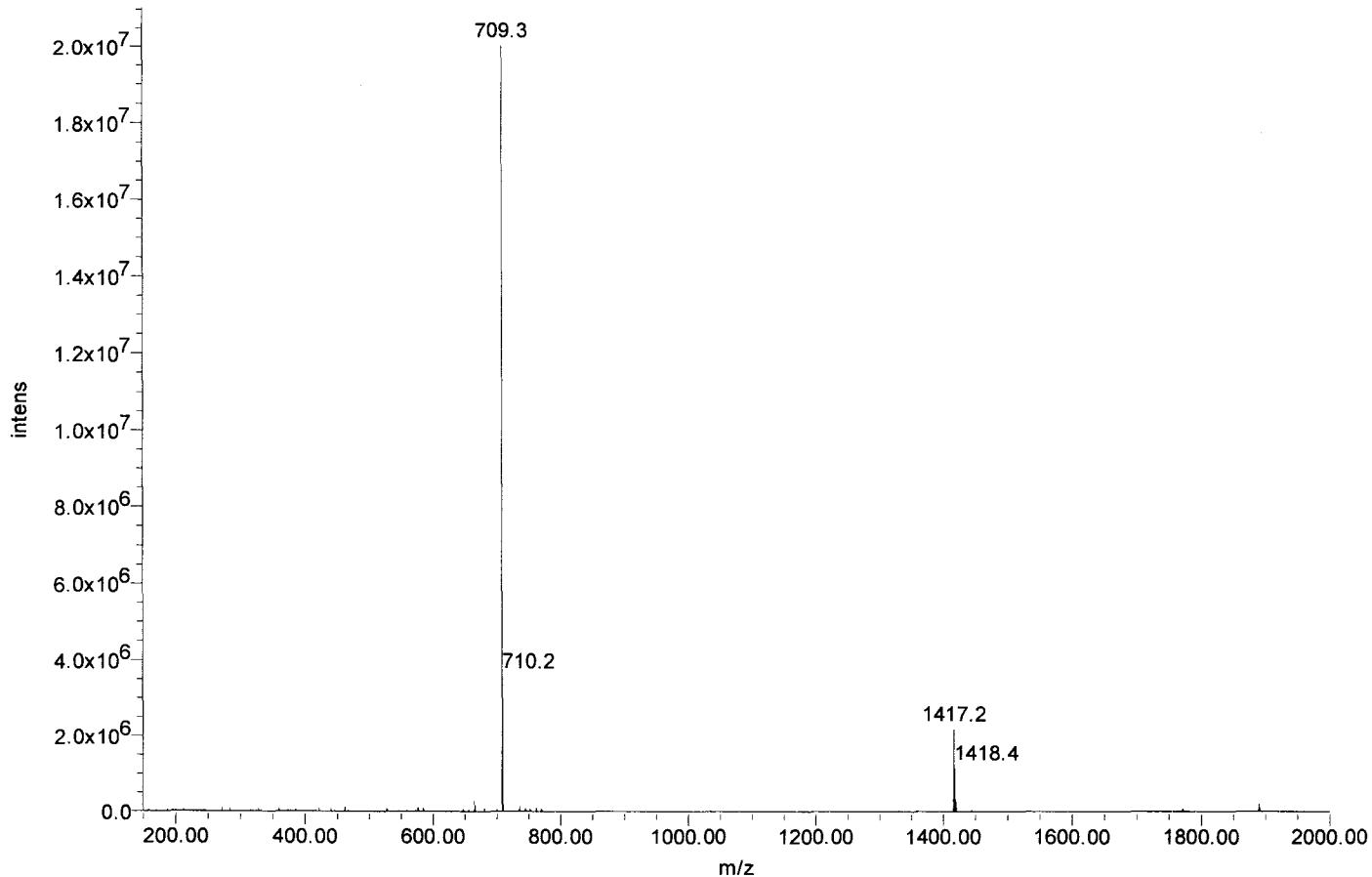
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #16  
ASGADANCSPRGPSC  
Cat#5725 Lot#080132  
Net Wt. 1mg

**Product #:** 344756                   **Lot #:** SW05022T

**Sequence:** Ala - Ser - Gly - Ala - Asp - Ala - Asn - Cys - Ser - Pro - Arg - Gly - Pro - Ser - Cys

**Molecular Weight:** 1392.5 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 93.9 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 82.6 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	3.00	3.07		Cys	2.00	0.00	*1	Ser	3.00	2.51	
Arg	1.00	1.02		Gly	2.00	2.07					
Asx	2.00	2.00		Pro	2.00	2.33					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shweta Patel  
Quality Control Department

Date: 06/19/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

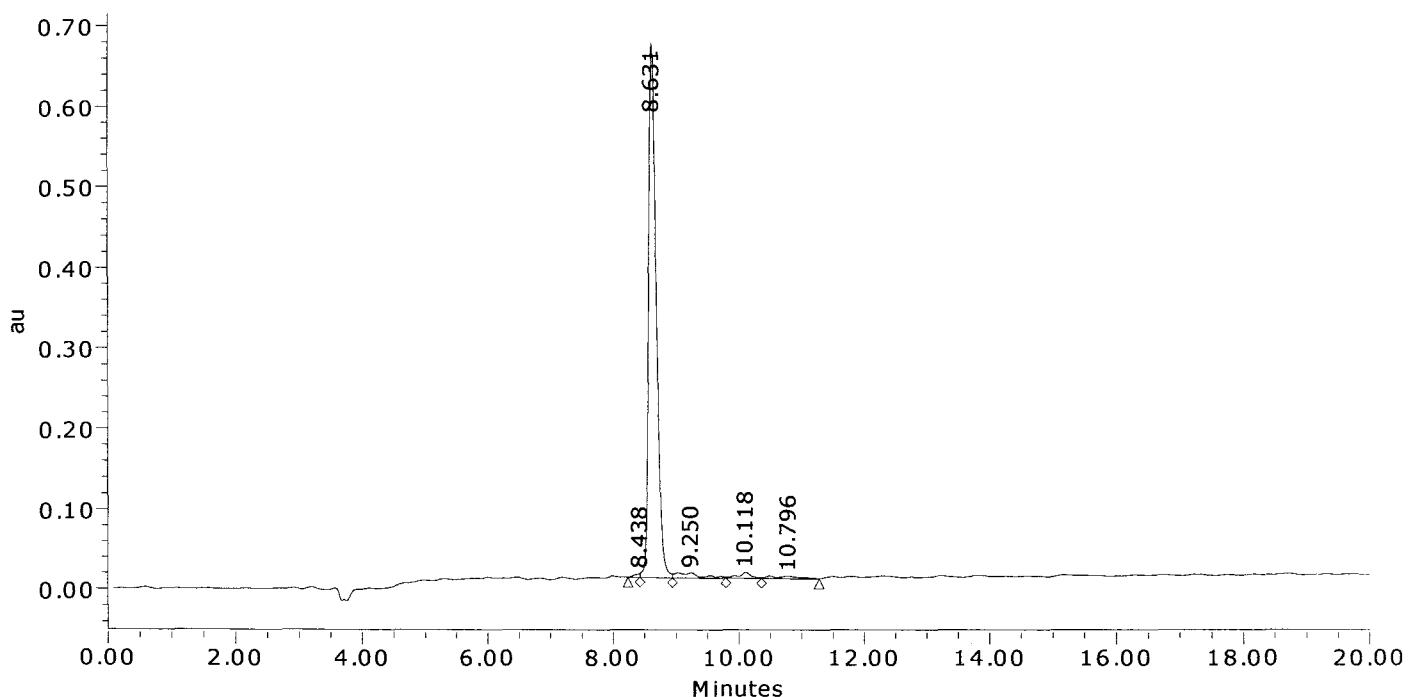
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344756/SW05022T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 17:26:19 CST  
Sample ID: 344756 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344756\_A Final\_PDA  
Date Acquired: 5/12/2008 16:45:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 9% -29% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C

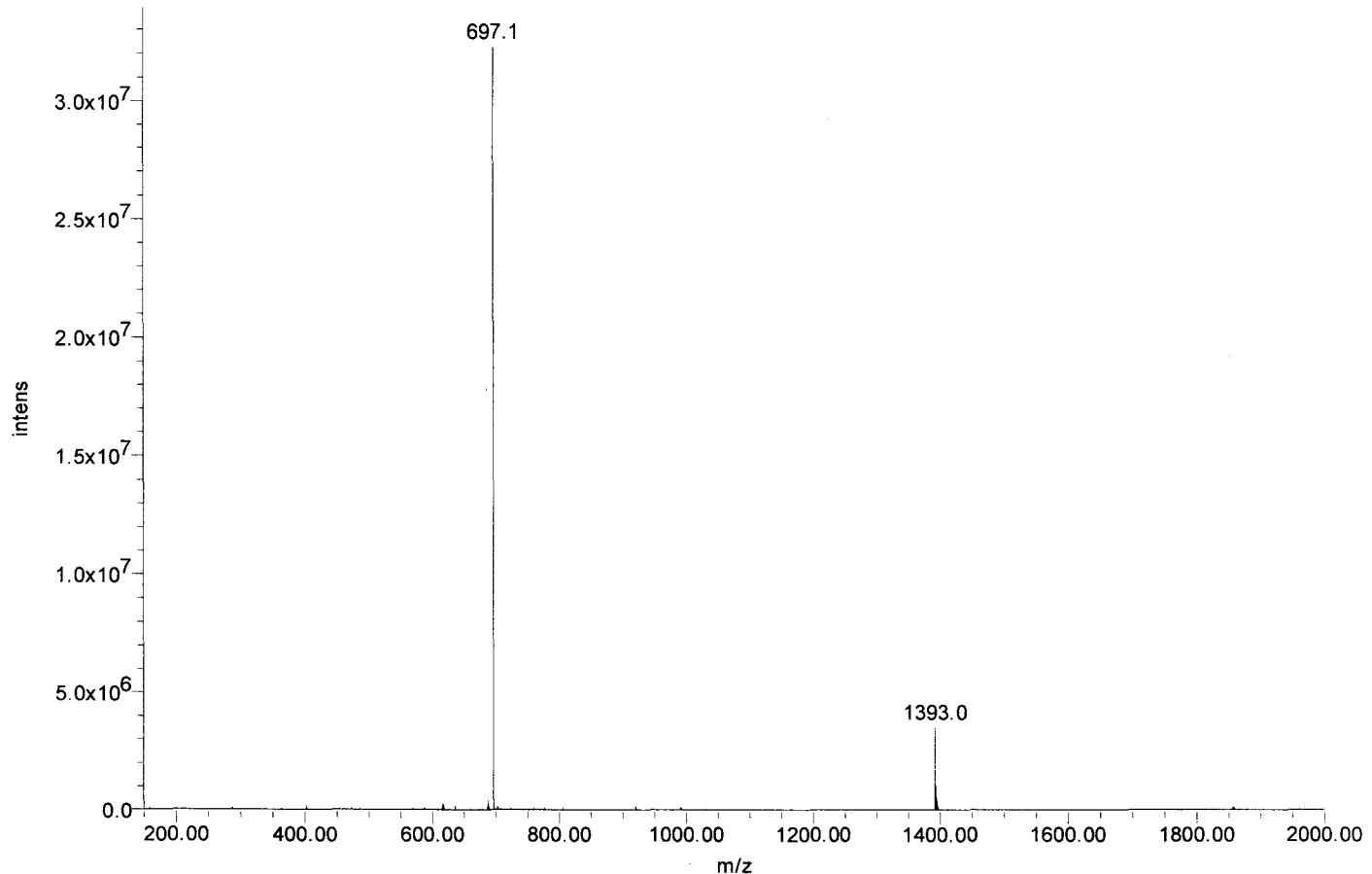


	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.4	8.438	25152	4746
2	93.9	8.631	5621446	664909
3	2.7	9.250	163755	6153
4	1.5	10.118	89948	7088
5	1.4	10.796	84585	3115
Sum	100.00		5984886	686012.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344756      **Lot # :** SW05022T      **Chemist :** Yan Li

Date Acquired : 5/12/2008 16:45:09 CST  
Expected MS : MW: 1392.5  
Acq. Method Set : Import  
Processing Method : 344756\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #17  
DANCSPRGPSCGSAK  
Cat#5726 Lot#080132  
Net Wt. 1mg

**Product #:** 344757                    **Lot #:** SW05010T

**Sequence:** Asp - Ala - Asn - Cys - Ser - Pro - Arg - Gly - Pro - Ser - Cys - Gly - Ser - Ala - Lys

**Molecular Weight:** 1449.6 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 92.4 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 75.9 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	2.00	1.97		Cys	2.00	0.00	*1	Pro	2.00	2.02	
Arg	1.00	0.96		Gly	2.00	2.04		Ser	3.00	2.42	
Asx	2.00	2.00		Lys	1.00	0.97					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

**Not for human use, research purposes only.**

**IMPORTANT: Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.**

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

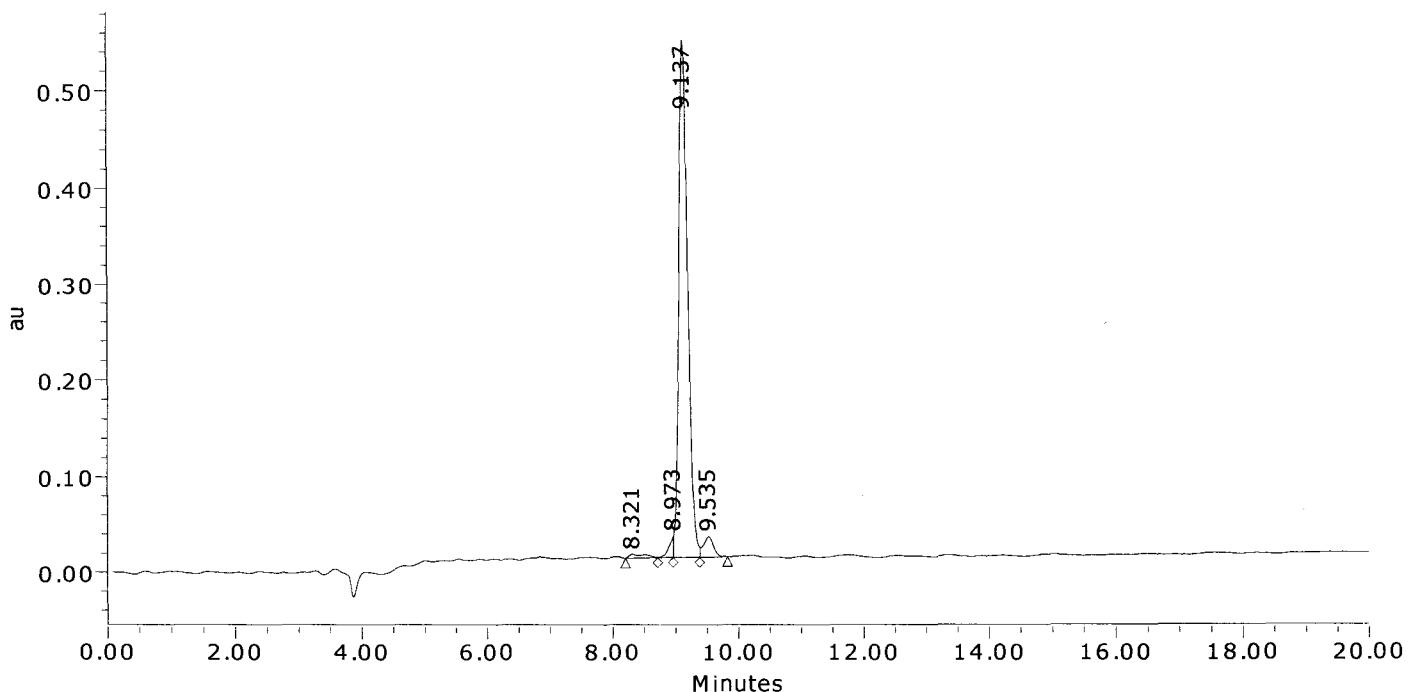
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344757/SW05010T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 11:28:59 CST  
Sample ID: 344757 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344757\_A Final\_PDA  
Date Acquired: 5/13/2008 1:02:15 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 8% -28% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.3	8.321	75816	4084
2	1.9	8.973	110473	22547
3	92.4	9.137	5319107	537510
4	4.3	9.535	248798	21643
Sum	100.00		5754195	585784.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344757

Lot # : SW05010T

Chemist : Yan Li

Date Acquired :

5/13/2008 1:02:15 CST

Expected MS :

MW: 1449.6

Acq. Method Set :

Import

Processing Method :

344757\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

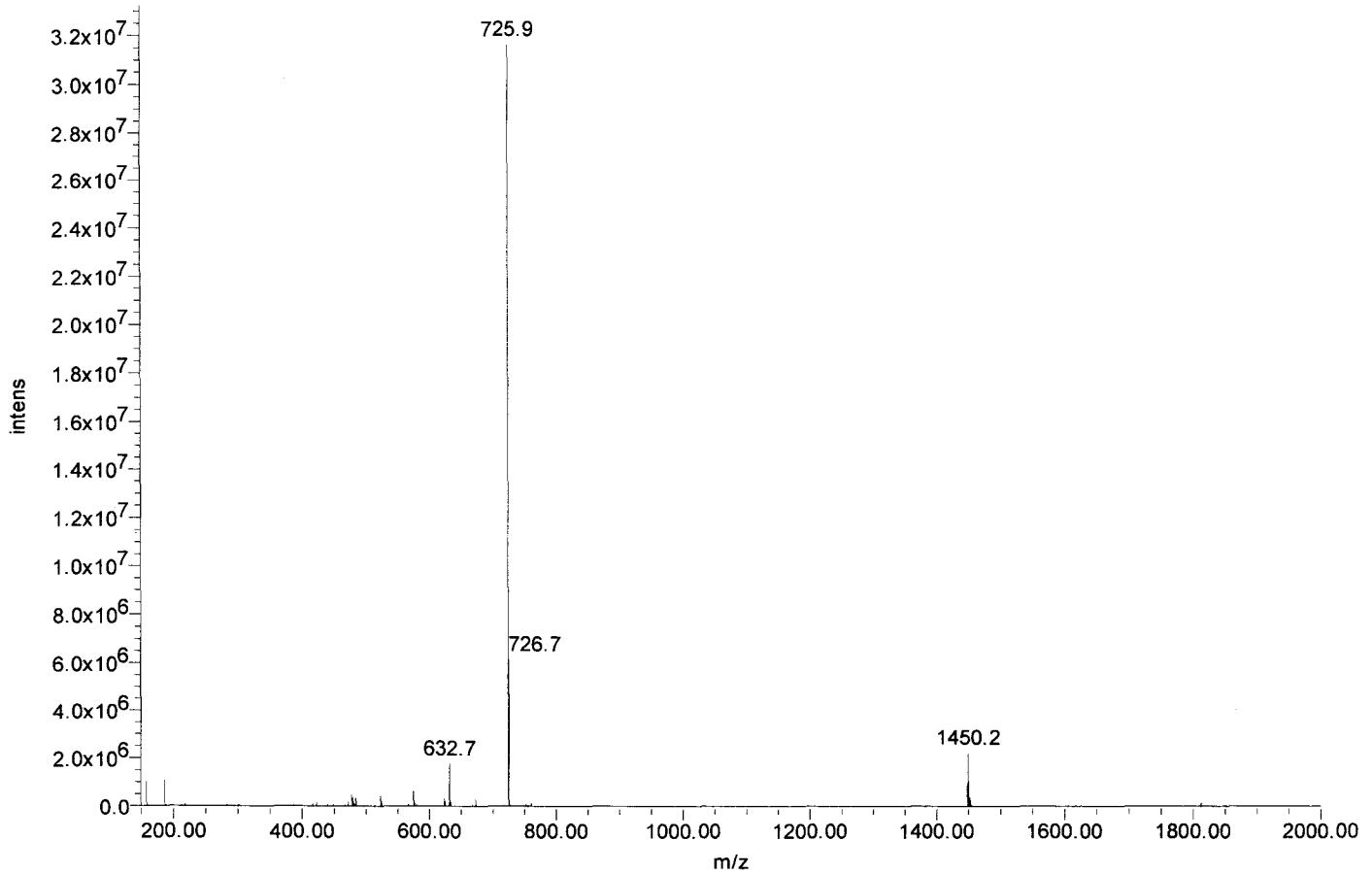
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #18  
SPRGPSGSAKELHA  
Cat#5727 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344758                   **Lot #:** SW05013T  
**Sequence:** Ser-Pro-Arg-Gly-Pro-Ser-Cys-Gly-Ser-Ala-Lys-Glu-Leu-His-Ala  
**Molecular Weight:** 1496.7 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 84.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 64.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.20		Gly	2.00	2.30		Lys	1.00	1.15	
Arg	1.00	1.15		His	1.00	1.00		Pro	2.00	2.07	
Cys	1.00	0.00	*1	Leu	1.00	1.20		Ser	3.00	2.44	
Glx	1.00	1.17									

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 06/02/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

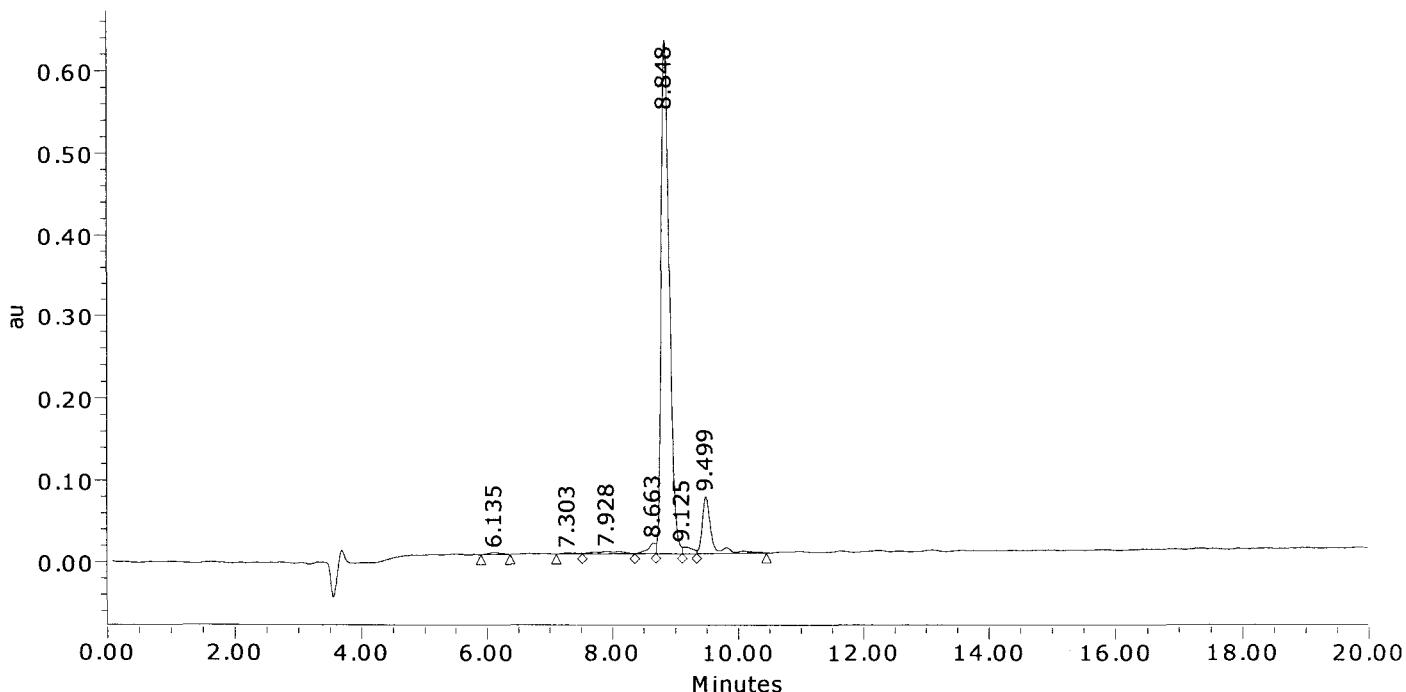
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344758/SW05013T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 16:10:40 CST  
Sample ID: 344758 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344758\_A Final\_PDA  
Date Acquired: 5/12/2008 15:23:02 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 12% -32% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	6.135	39320	2700
2	0.3	7.303	23266	1348
3	1.5	7.928	98361	3089
4	1.7	8.663	112107	13330
5	84.2	8.848	5686155	627718
6	1.3	9.125	87577	7920
7	10.5	9.499	708228	69945
Sum	100.00		6755014	726051.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344758

Lot # : SW05013T

Chemist : Yan Li

Date Acquired :

5/12/2008 15:23:02 CST

Expected MS :

MW: 1496.7

Acq. Method Set :

Import

Processing Method :

344758\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

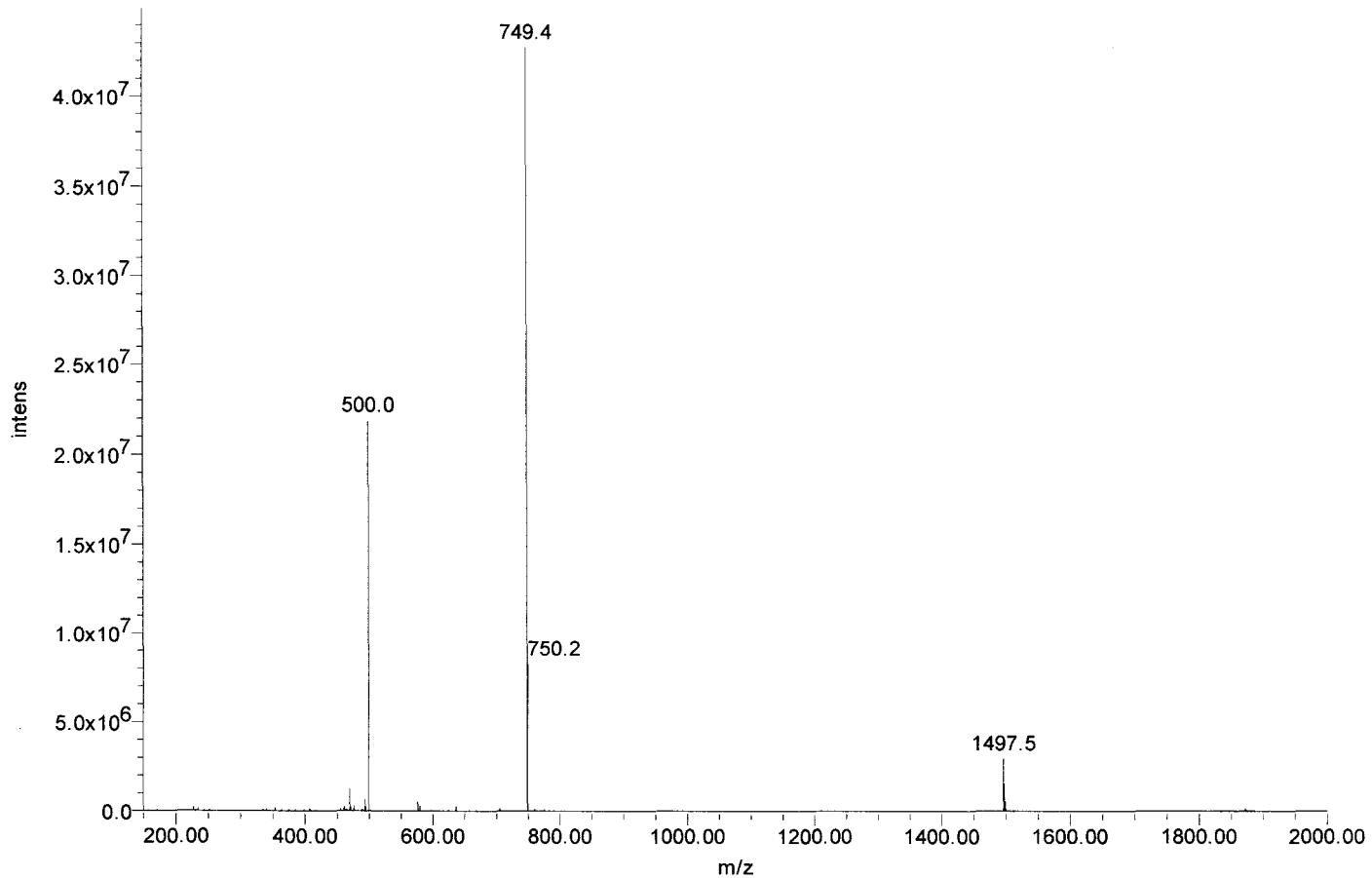
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #19  
PSCGSAKELHAVGQA  
Cat#5728 Lot#080132  
Net Wt. 1mg

**Product #:** 344759                   **Lot #:** SW05016T

**Sequence:** Pro - Ser - Cys - Gly - Ser - Ala - Lys - Glu - Leu - His - Ala - Val - Gly - Gln - Ala

**Molecular Weight:** 1454.6 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 94.5 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 71.4 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	3.00	3.10		His	1.00	1.02		Ser	2.00	1.69	
Cys	1.00	0.00	*1	Leu	1.00	1.02		Val	1.00	0.95	
Glx	2.00	2.00		Lys	1.00	1.03					
Gly	2.00	2.07		Pro	1.00	1.10					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

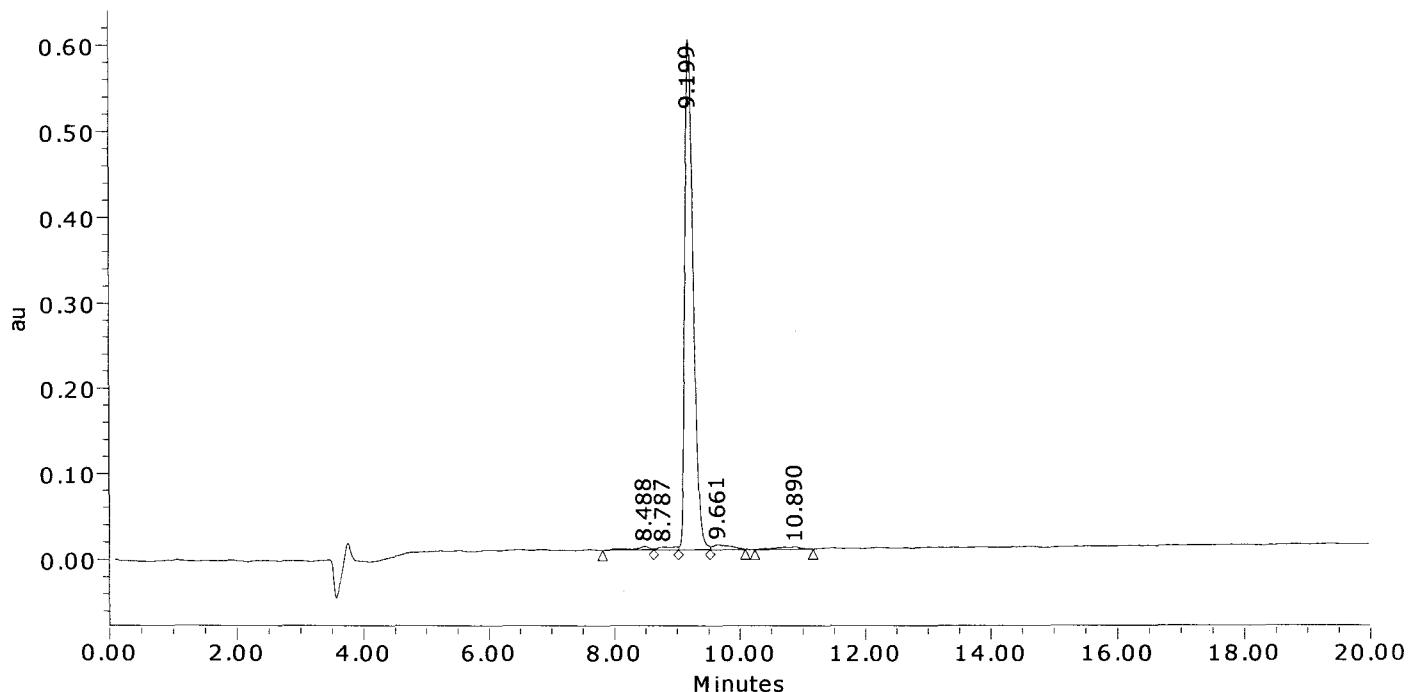
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344759/SW05016T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 10:35:06 CST  
Sample ID: 344759 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344759\_A Final\_PDA  
Date Acquired: 5/12/2008 23:42:59 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 13% -33% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.3	8.488	74090	3941
2	1.1	8.787	64630	3329
3	94.5	9.199	5593133	595250
4	1.8	9.661	108141	5848
5	1.3	10.890	75720	2651
Sum	100.00		5915715	611019.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344759

Lot # : SW05016T

Chemist : Yan Li

Date Acquired :

5/12/2008 23:42:59 CST

Expected MS :

MW: 1454.6

Acq. Method Set :

Import

Processing Method :

344759\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

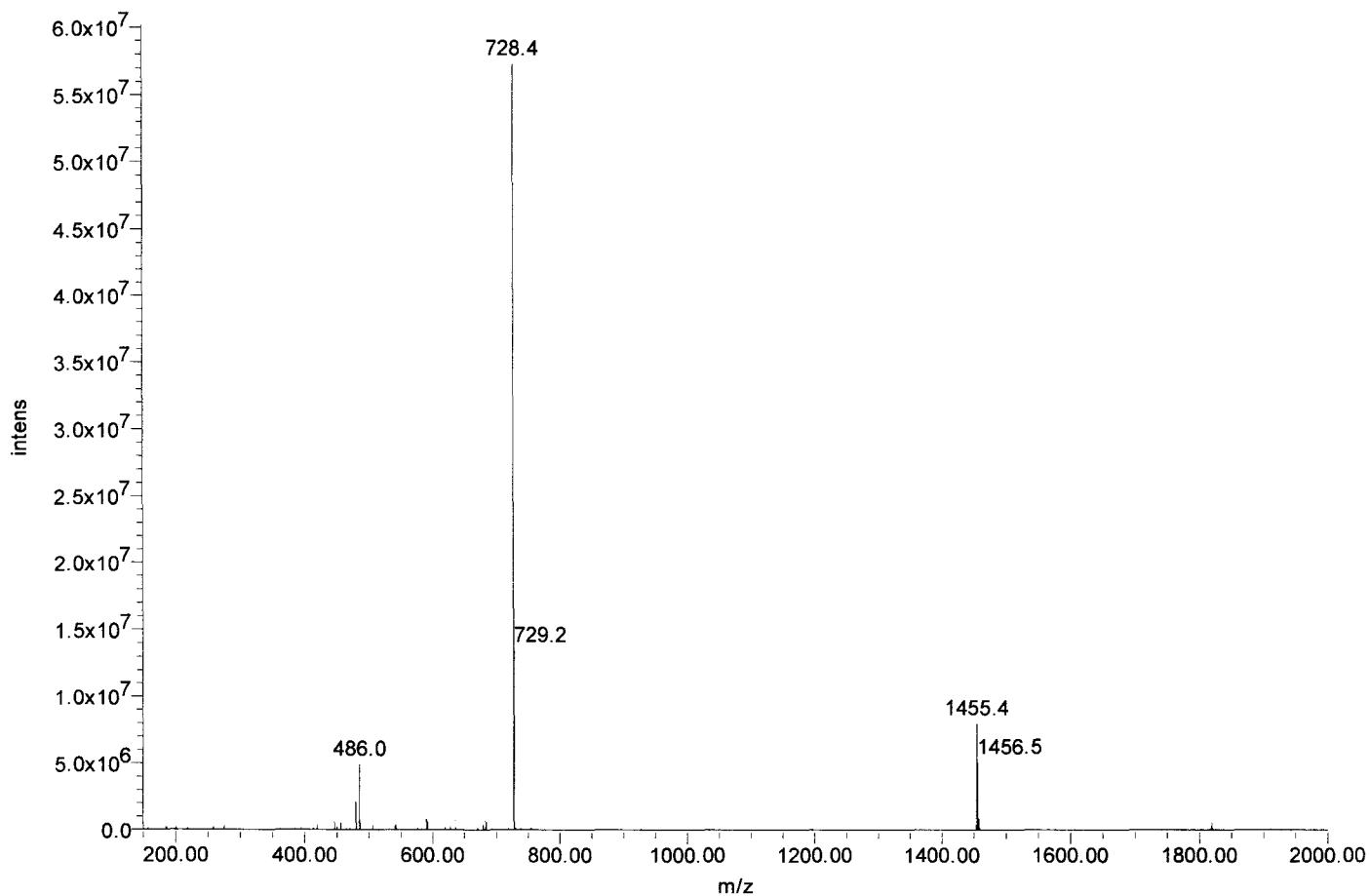
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #20  
SAKELHAVGQAAERK  
Cat#5729 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344760                   **Lot #:** SW05017T

**Sequence:** Ser-Ala-Lys-Glu-Leu-His-Ala-Val-Gly-Gln-Ala-Ala-Glu-Arg-Lys

**Molecular Weight:** 1594.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 92.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	4.00	4.00		Gly	1.00	1.00		Lys	2.00	1.97	
Arg	1.00	1.01		His	1.00	1.01		Ser	1.00	0.81	
Glx	3.00	2.83		Leu	1.00	1.14		Val	1.00	0.98	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yanz Li*  
Quality Control Department

Date: 05/14/08

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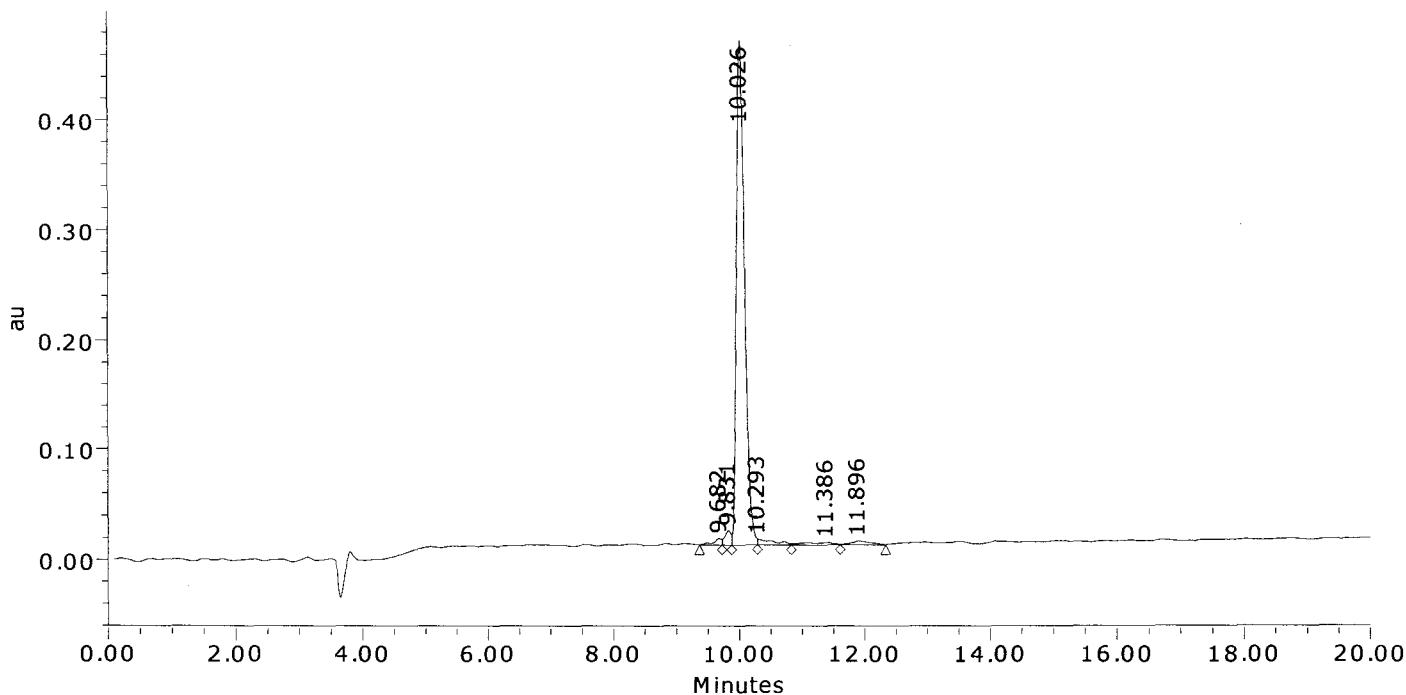
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344760/SW05017T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 11:05:10 CST  
Sample ID: 344760 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344760\_A Final\_PDA  
Date Acquired: 5/13/2008 0:22:34 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 11% -31% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.2	9.682	54084	5905
2	2.0	9.831	88606	12952
3	92.0	10.026	4142109	459730
4	2.0	10.293	91203	5198
5	1.4	11.386	61316	2001
6	1.4	11.896	63867	3197
Sum	100.00		4501186	488983.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344760

Lot # : SW05017T

Chemist : Yan Li

Date Acquired :

5/13/2008 0:22:34 CST

Expected MS :

MW: 1594.8

Acq. Method Set :

Import

Processing Method :

344760\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

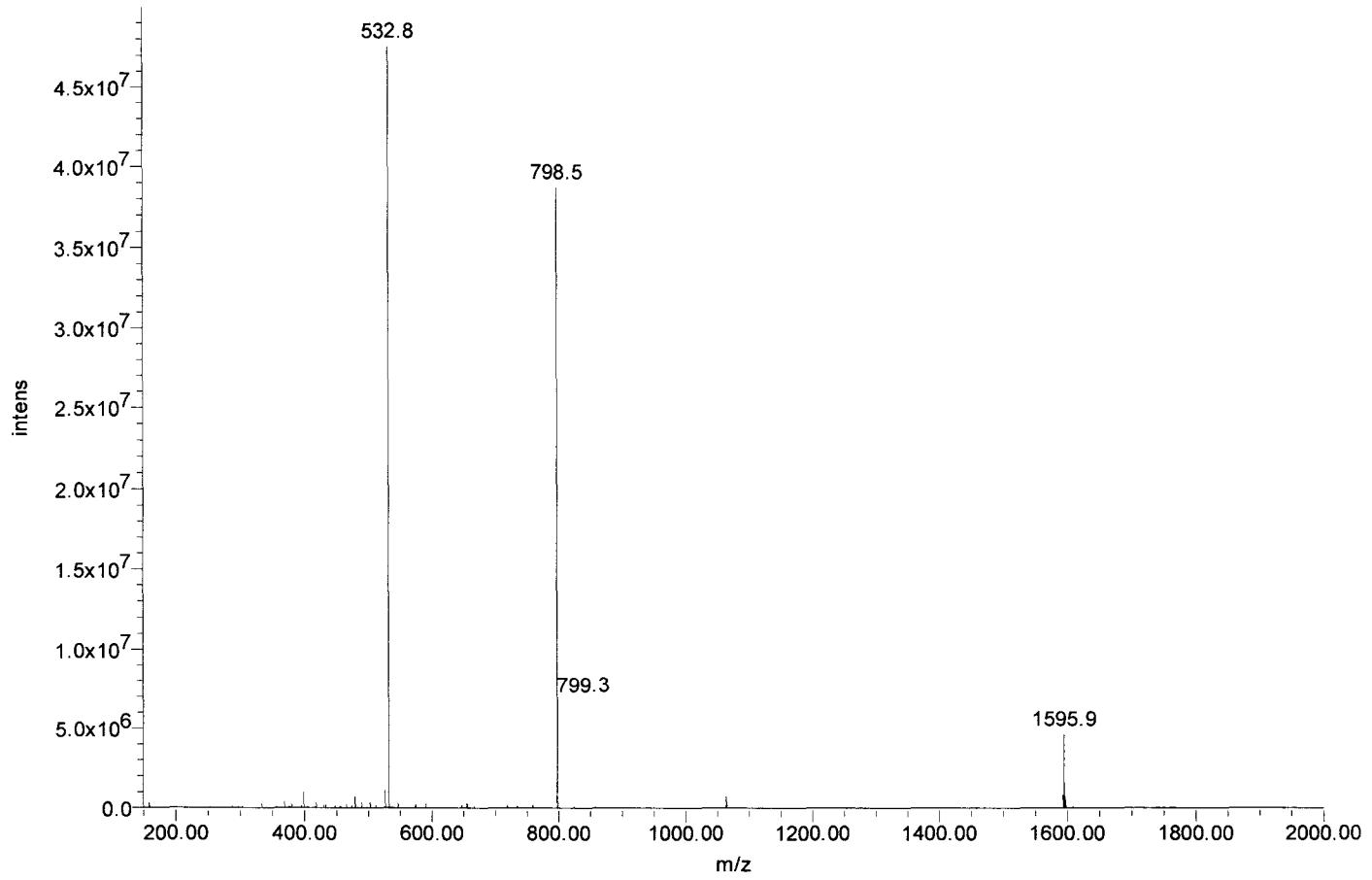
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #21  
LHAVGQAAERKAERK  
Cat#5730 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344761                   **Lot #:** SW05037T

**Sequence:** Leu-His-Ala-Val-Gly-Gln-Ala-Ala-Glu-Arg-Lys-Ala-Glu-Arg-Lys

**Molecular Weight:** 1663.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 83.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 65.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	4.00	4.27		Gly	1.00	1.06		Lys	2.00	2.13	
Arg	2.00	2.15		His	1.00	0.88		Val	1.00	1.15	
Glx	3.00	3.00		Leu	1.00	1.00					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/15/08

Quality Control Department

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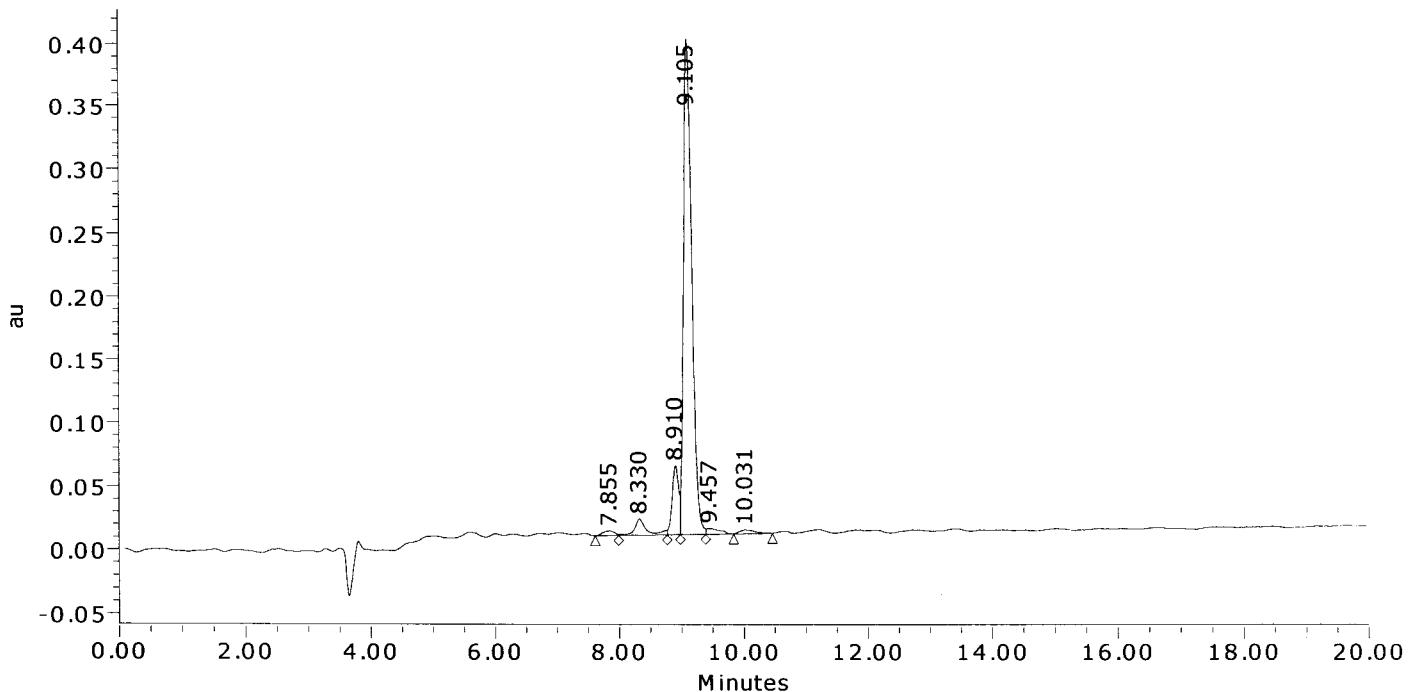
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344761/SW05037T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:03:22 CST  
Sample ID: 344761 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344761\_A Final\_PDA  
Date Acquired: 5/13/2008 23:37:22 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 11%-31% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.1	7.855	49221	3746
2	4.0	8.330	173601	12722
3	9.0	8.910	393069	54682
4	83.0	9.105	3608609	392420
5	1.6	9.457	71104	4622
6	1.2	10.031	52174	3037
Sum	100.00		4347779	471228.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344761**

**Lot # : SW05037T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 23:37:22 CST

Expected MS :

MW: 1663.9

Acq. Method Set :

Import

Processing Method :

344761\_A Final\_MS

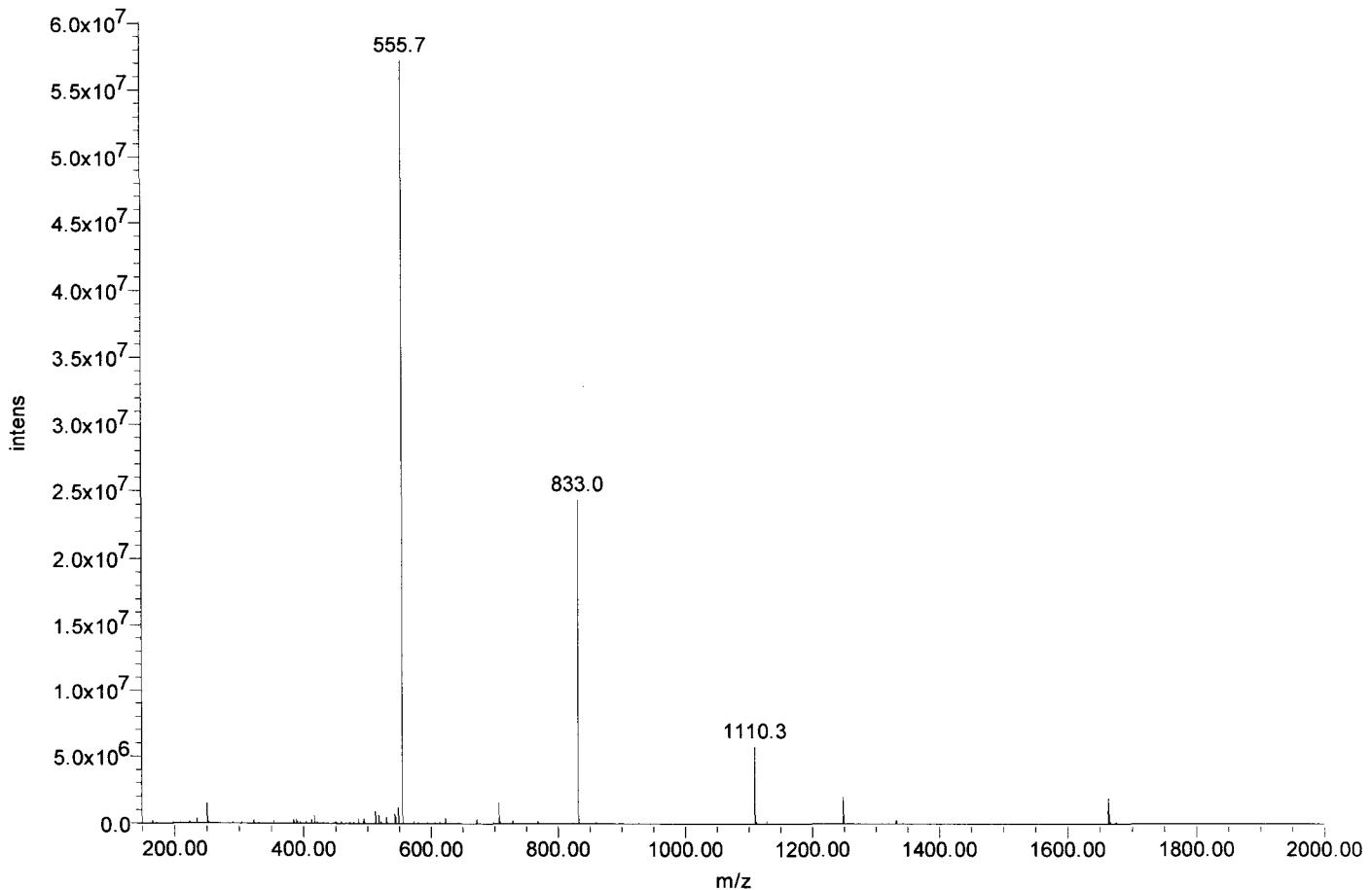
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time : 25.0 Minutes

Flow rate : 1.0 mL/min

Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #22  
GQAAERKAERKQREA  
Cat#5731 Lot#/080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344762                   **Lot #:** SW05033T  
**Sequence:** Gly-Gln-Ala-Ala-Glu-Arg-Lys-Ala-Glu-Arg-Lys-Gln-Arg-Glu-Ala  
**Molecular Weight:** 1727.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 85.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 67.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	4.00	4.00		Glx	5.00	4.69		Lys	2.00	2.02	
Arg	3.00	3.05		Gly	1.00	0.98					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/15/08  
Quality Control Department

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Tel: 81-297-45-6311 Fax: 81-297-45-6353

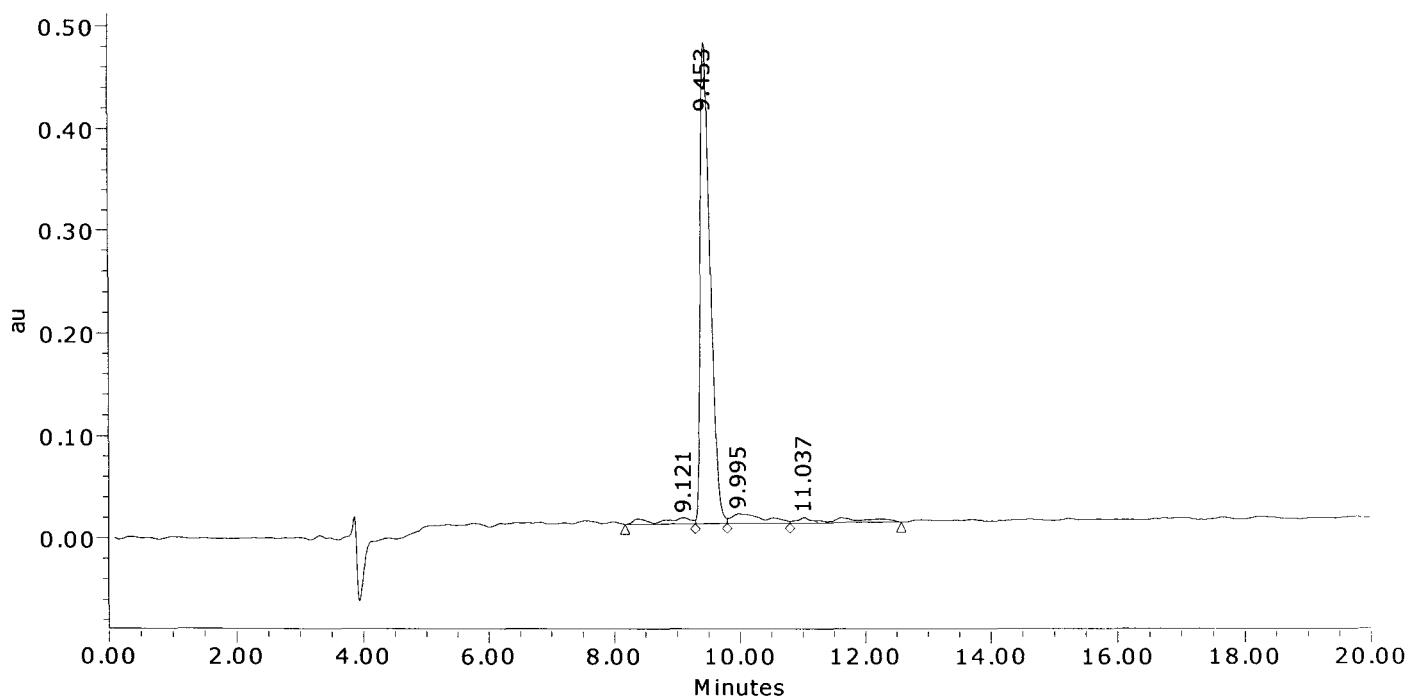
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344762/SW05033T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:08:57 CST  
Sample ID: 344762 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344762\_A Final\_PDA  
Date Acquired: 5/14/2008 0:56:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 6% -26% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	3.8	9.121	230397	5753
2	85.8	9.453	5178640	470141
3	5.8	9.995	351581	9470
4	4.5	11.037	273132	5255
Sum	100.00		6033750	490620.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344762

Lot # : SW05033T

Chemist : Yan Li

Date Acquired :

5/14/2008 0:56:35 CST

Expected MS :

MW: 1727.9

Acq. Method Set :

Import

Processing Method :

344762\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

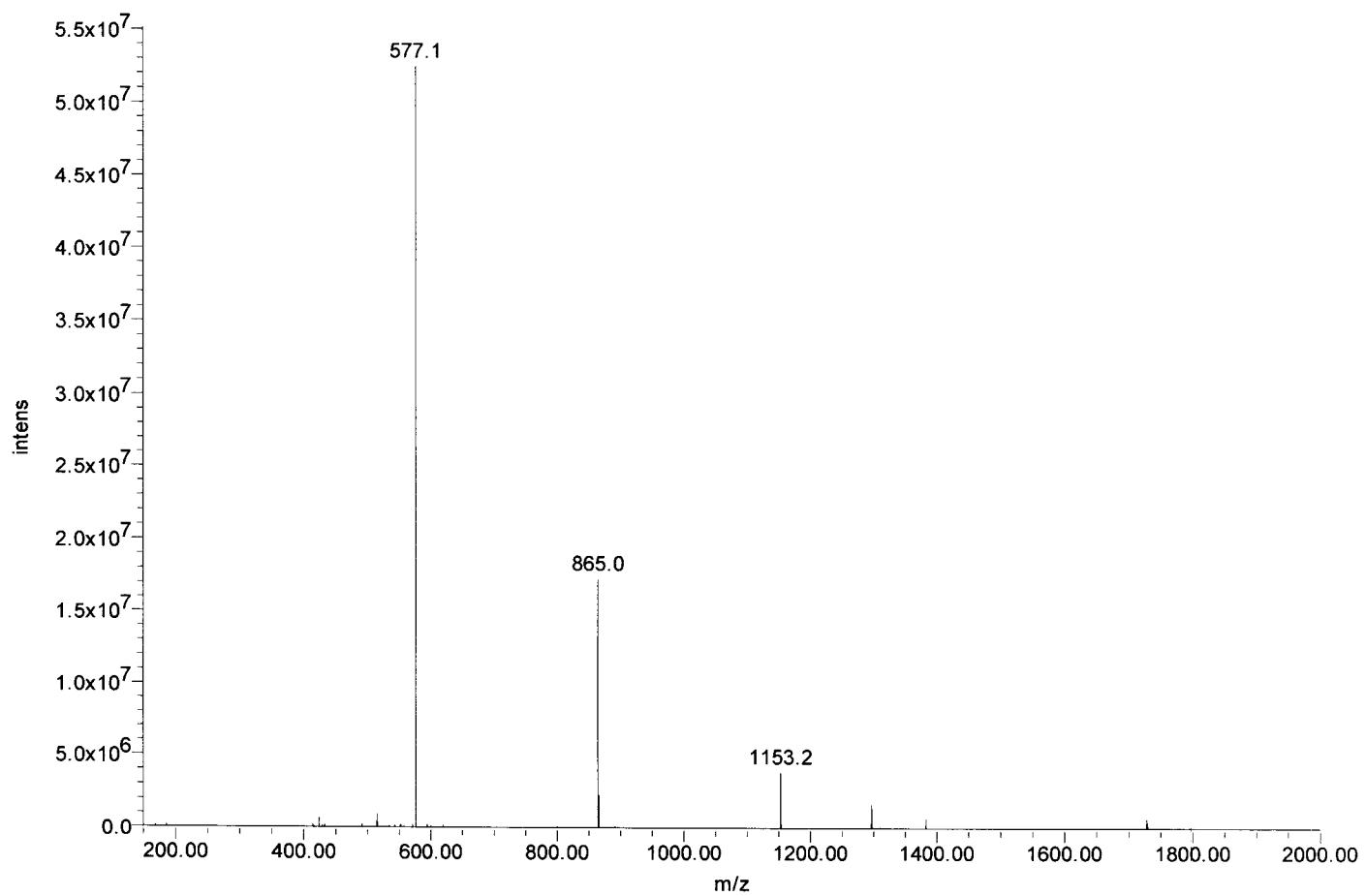
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #23  
ERKAERKQREALQGG  
Cat#5732 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344763                   **Lot #:** SW05046T  
**Sequence:** Glu-Arg-Lys-Ala-Glu-Arg-Lys-Gln-Arg-Glu-Ala-Leu-Gln-Gly-Gly  
**Molecular Weight:** 1756.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 69.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Glx	5.00	4.60		Leu	1.00	1.13	
Arg	3.00	3.00		Gly	2.00	1.94		Lys	2.00	1.99	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/15/08

Quality Control Department

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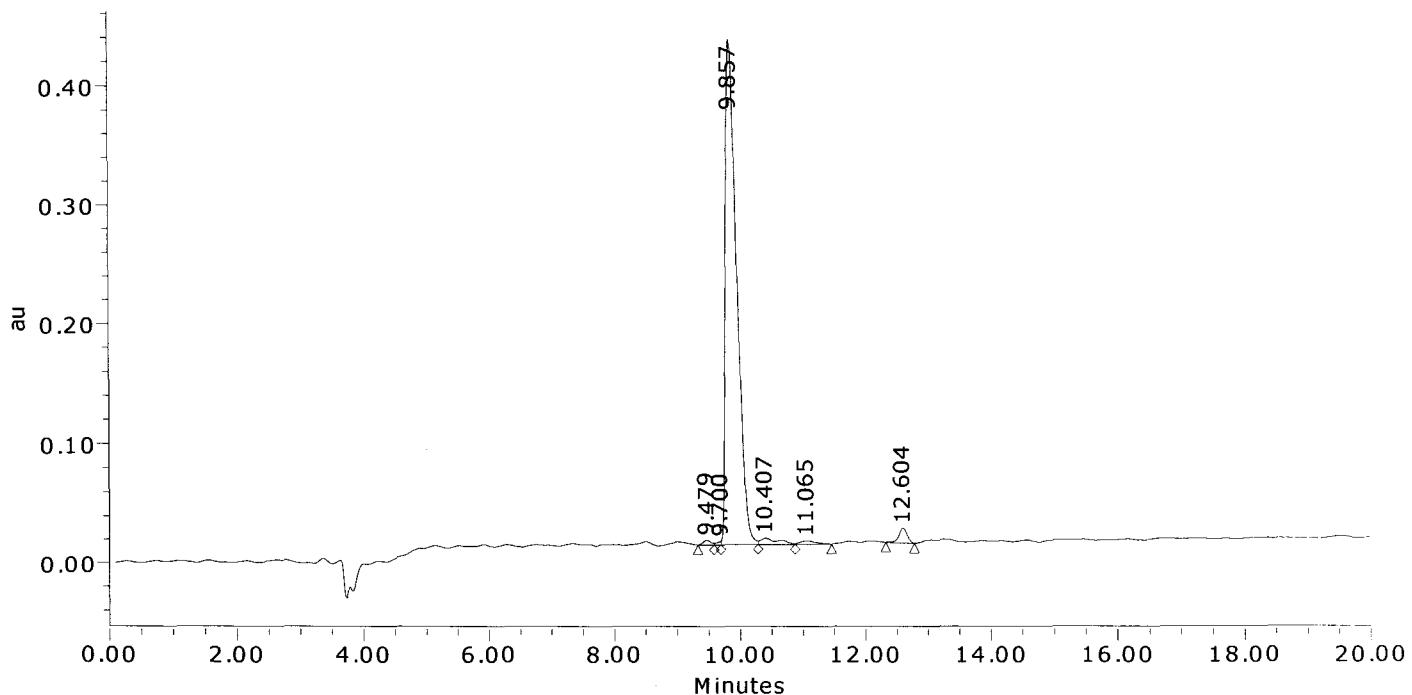
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344763/SW05046T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 11:48:40 CST  
Sample ID: 344763 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344763\_A Final\_PDA  
Date Acquired: 5/14/2008 0:16:57 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 9% -29% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.6	9.479	34349	4022
2	0.2	9.700	13948	3144
3	94.3	9.857	5268687	422402
4	1.9	10.407	106203	5241
5	0.9	11.065	52532	2833
6	2.0	12.604	113131	12497
<b>Sum</b>	<b>100.00</b>		<b>5588850</b>	<b>450139.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344763

Lot # : SW05046T

Chemist : Yan Li

Date Acquired :

5/14/2008 0:16:57 CST

Expected MS :

MW: 1756.0

Acq. Method Set :

Import

Processing Method :

344763\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

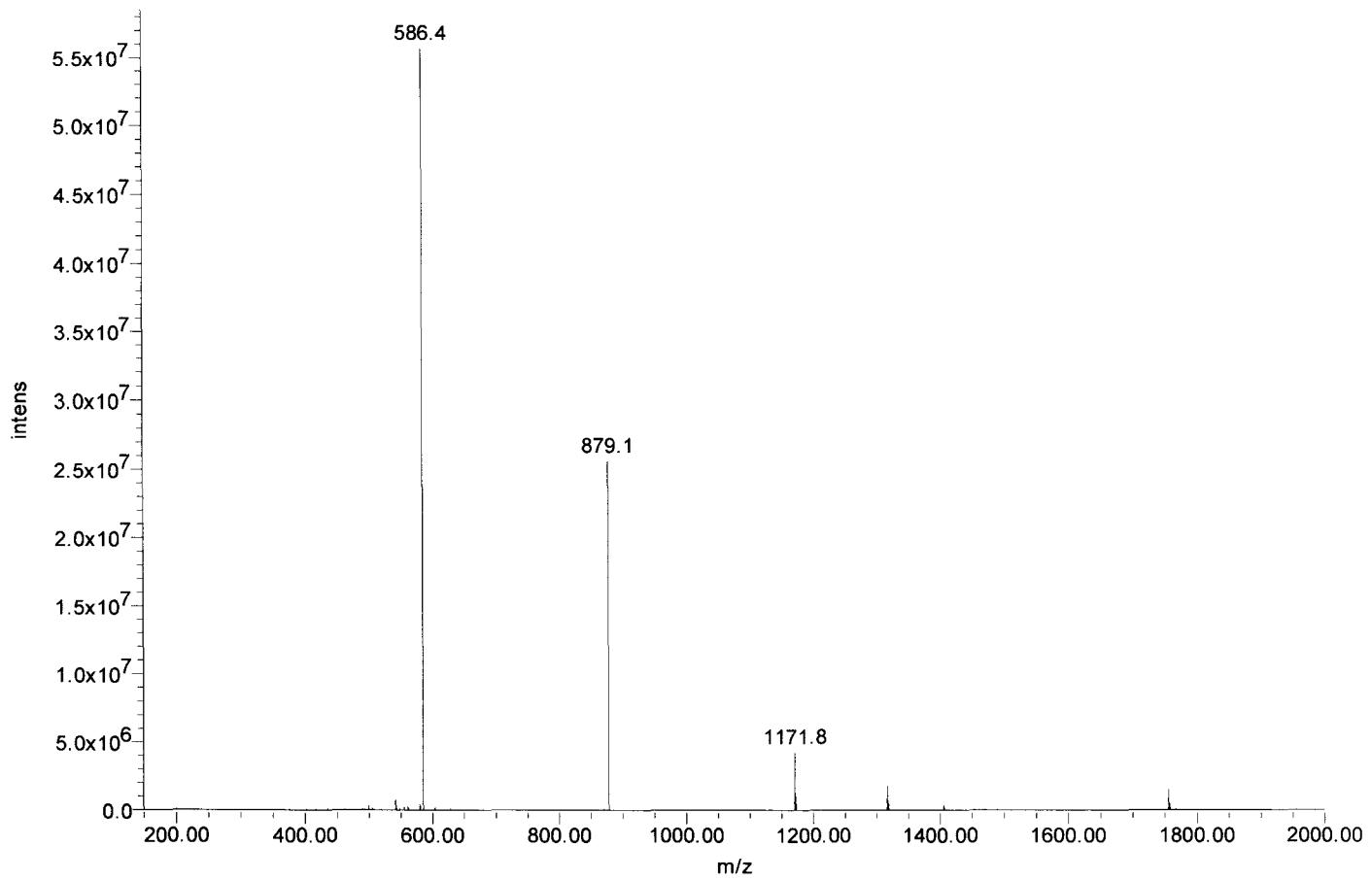
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #24  
ERKQREALQGGDRGF  
Cat#5733 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344764                   **Lot #:** SW05044T  
**Sequence:** Glu-Arg-Lys-Gln-Arg-Glu-Ala-Leu-Gln-Gly-Gly-Asp-Arg-Gly-Phe  
**Molecular Weight:** 1746.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 93.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 72.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.97		Glx	4.00	3.51		Lys	1.00	0.97	
Arg	3.00	2.90		Gly	3.00	2.89		Phe	1.00	0.98	
Asx	1.00	1.00		Leu	1.00	1.05					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/15/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
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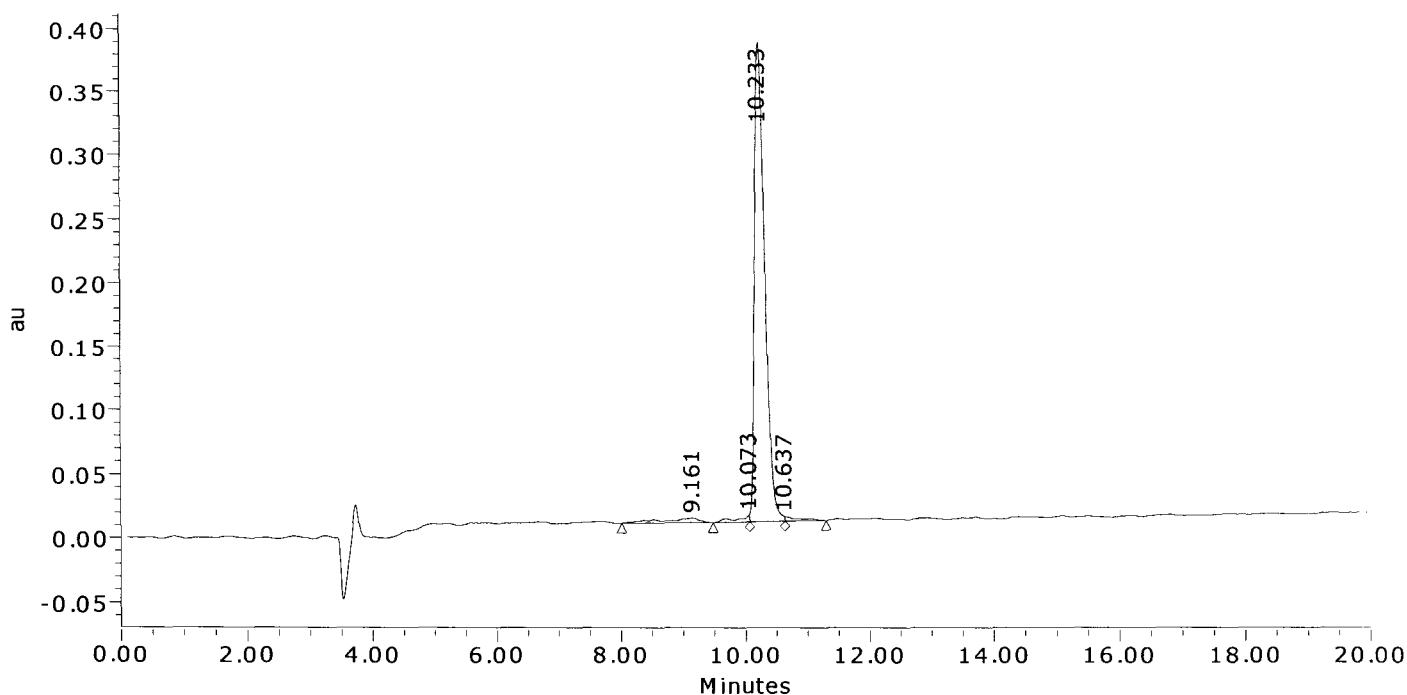
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344764/SW05044T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:17:33 CST  
Sample ID: 344764 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344764\_A\_Final\_PDA  
Date Acquired: 5/13/2008 22:18:12 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	3.4	9.161	158500	3771
2	1.7	10.073	78856	5230
3	93.5	10.233	4311893	376831
4	1.4	10.637	62269	3722
Sum	100.00		4611517	389553.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344764**

**Lot # : SW05044T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 22:18:12 CST

Expected MS :

MW: 1746.9

Acq. Method Set :

Import

Processing Method :

344764\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

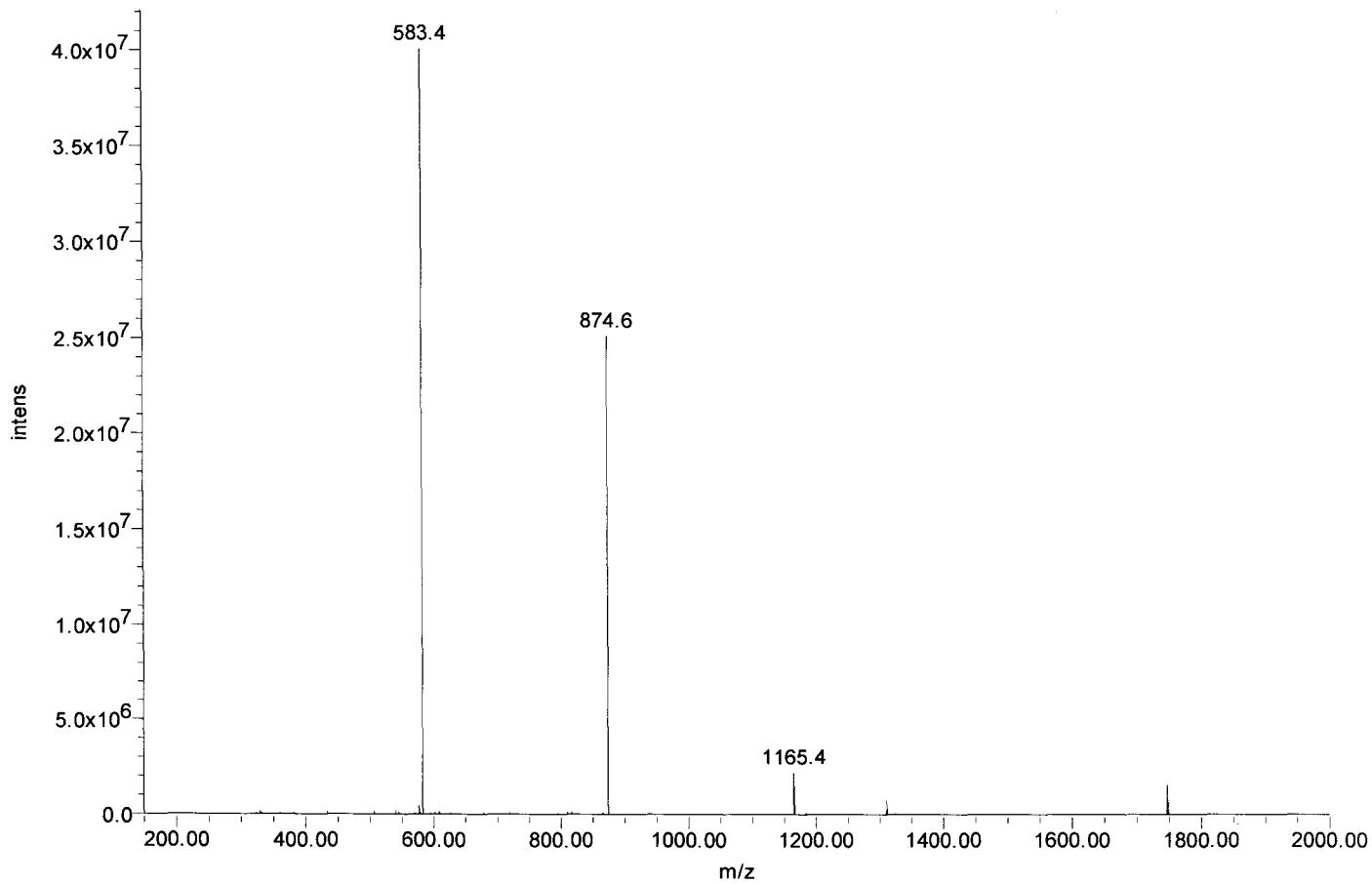
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #25  
REALQGGDRGFAAPQ  
Cat#5734 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344765                   **Lot #:** SW05019T  
**Sequence:** Arg-Glu-Ala-Leu-Gln-Gly-Gly-Asp-Arg-Gly-Phe-Ala-Ala-Pro-Gln  
**Molecular Weight:** 1572.7 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 77.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	3.00		Glx	3.00	2.78		Phe	1.00	1.02	
Arg	2.00	1.98		Gly	3.00	2.99		Pro	1.00	0.93	
Asx	1.00	1.01		Leu	1.00	1.10					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yanz Li'.

Date: 05/14/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

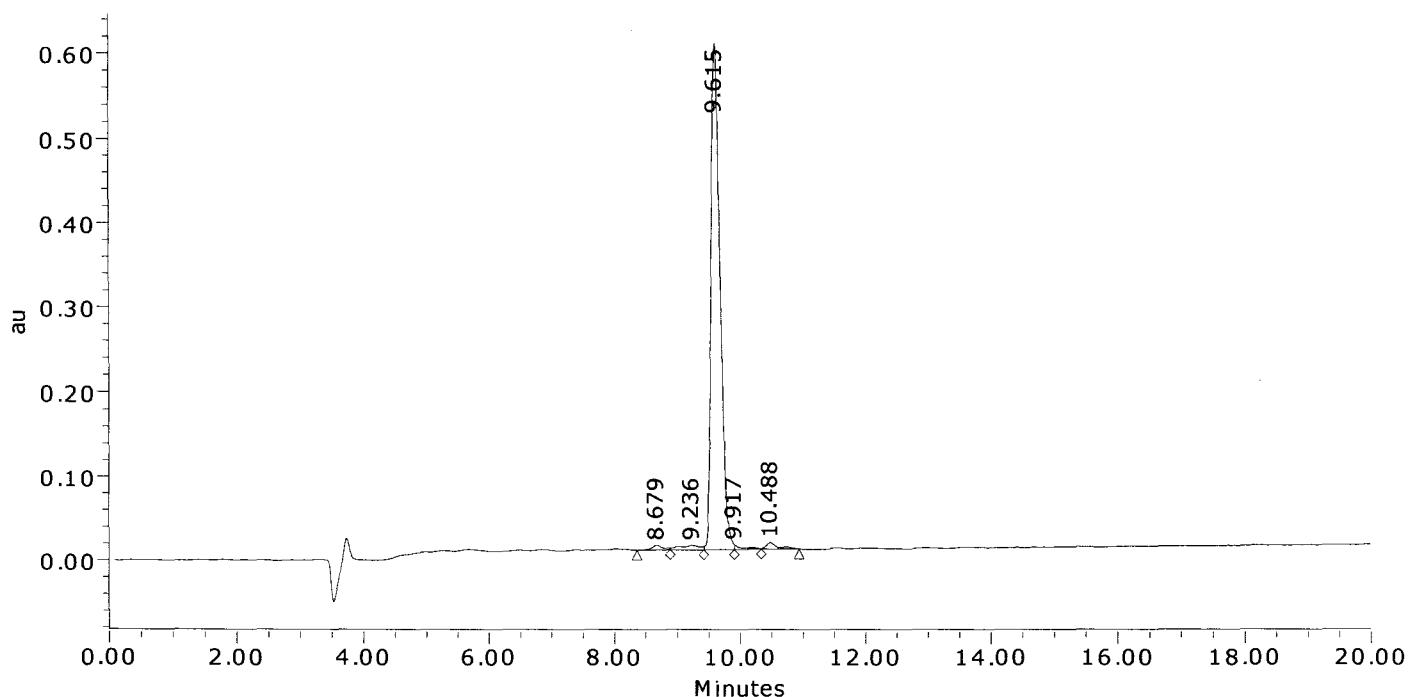
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344765/SW05019T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/13/2008 10:22:02 CST
Sample ID:	344765	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344765_A Final_PDA
Date Acquired:	5/12/2008 22:27:49 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	1.2	8.679	78858	6242
2	1.8	9.236	117365	5501
3	94.4	9.615	5996820	599378
4	0.8	9.917	52709	6095
5	1.6	10.488	104256	7960
<b>Sum</b>	<b>100.00</b>		<b>6350008</b>	<b>625176.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344765

Lot # : SW05019T

Chemist : Yan Li

Date Acquired :

5/13/2008 13:16:35 CST

Expected MS :

MW: 1572.7

Acq. Method Set :

Import

Processing Method :

344765\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

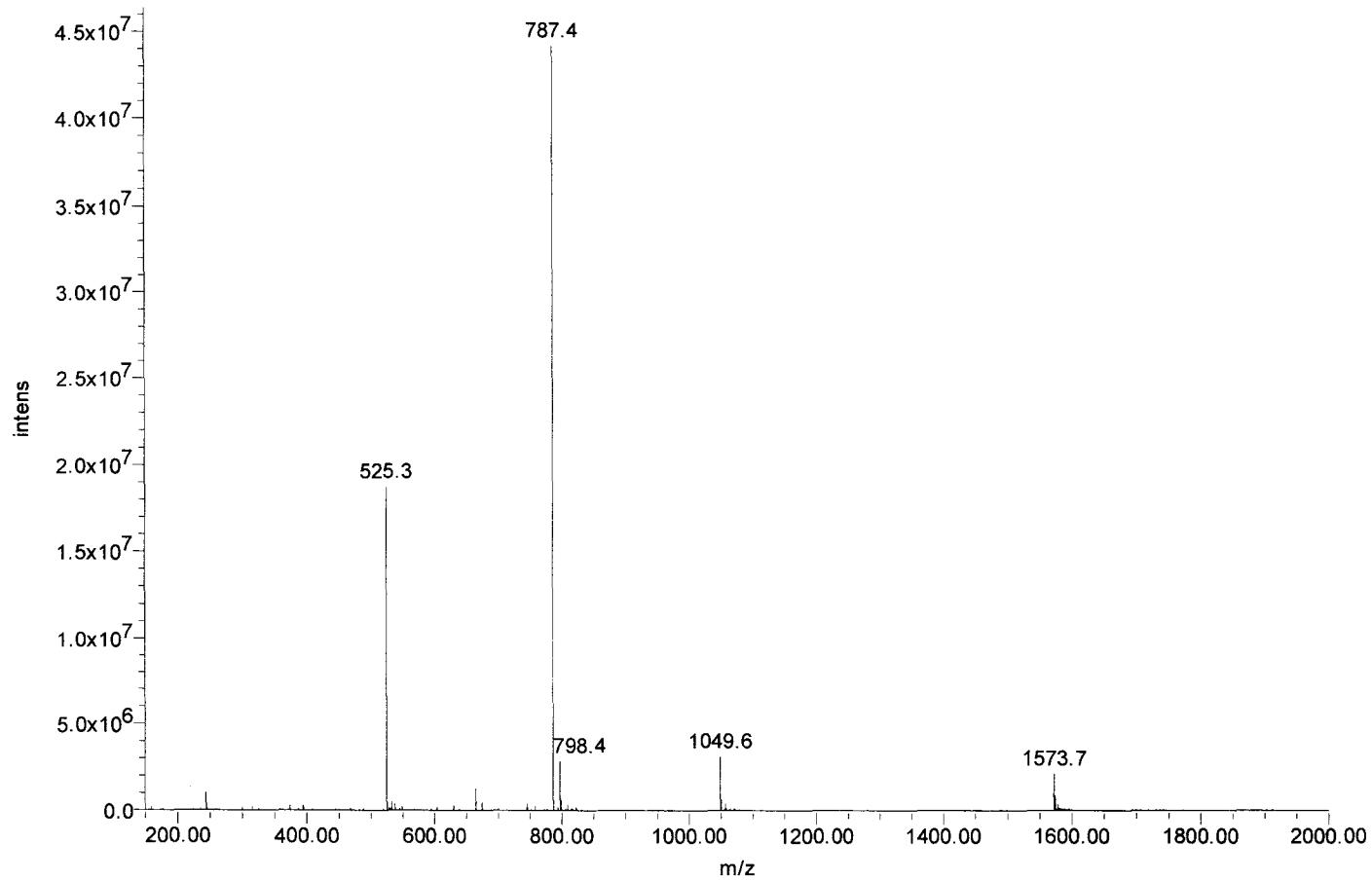
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #26  
QGGDRGFAAPQFSLW  
Cat#5735 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344766                   **Lot #:** SW05042T  
**Sequence:** Gln-Gly-Gly-Asp-Arg-Gly-Phe-Ala-Ala-Pro-Gln-Phe-Ser-Leu-Trp  
**Molecular Weight:** 1636.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.99		Gly	3.00	2.94		Pro	1.00	1.08	
Arg	1.00	1.00		Leu	1.00	1.13		Ser	1.00	0.81	
Asx	1.00	1.00		Phe	2.00	2.00		Trp	1.00	0.00	*1
Glx	2.00	1.90									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/15/08  
Quality Control Department

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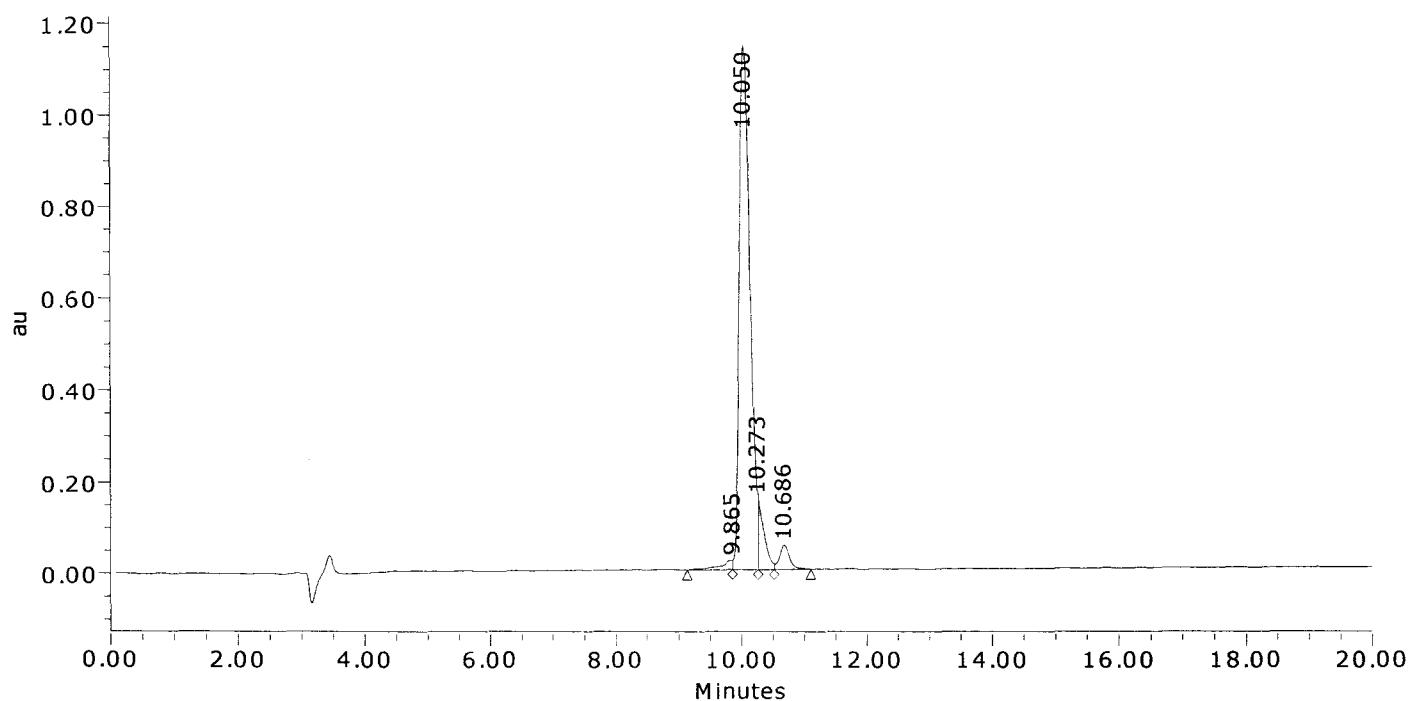
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344766/SW05042T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/14/2008 9:07:00 CST
Sample ID:	344766	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344766_A Final_PDA
Date Acquired:	5/13/2008 16:59:09 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

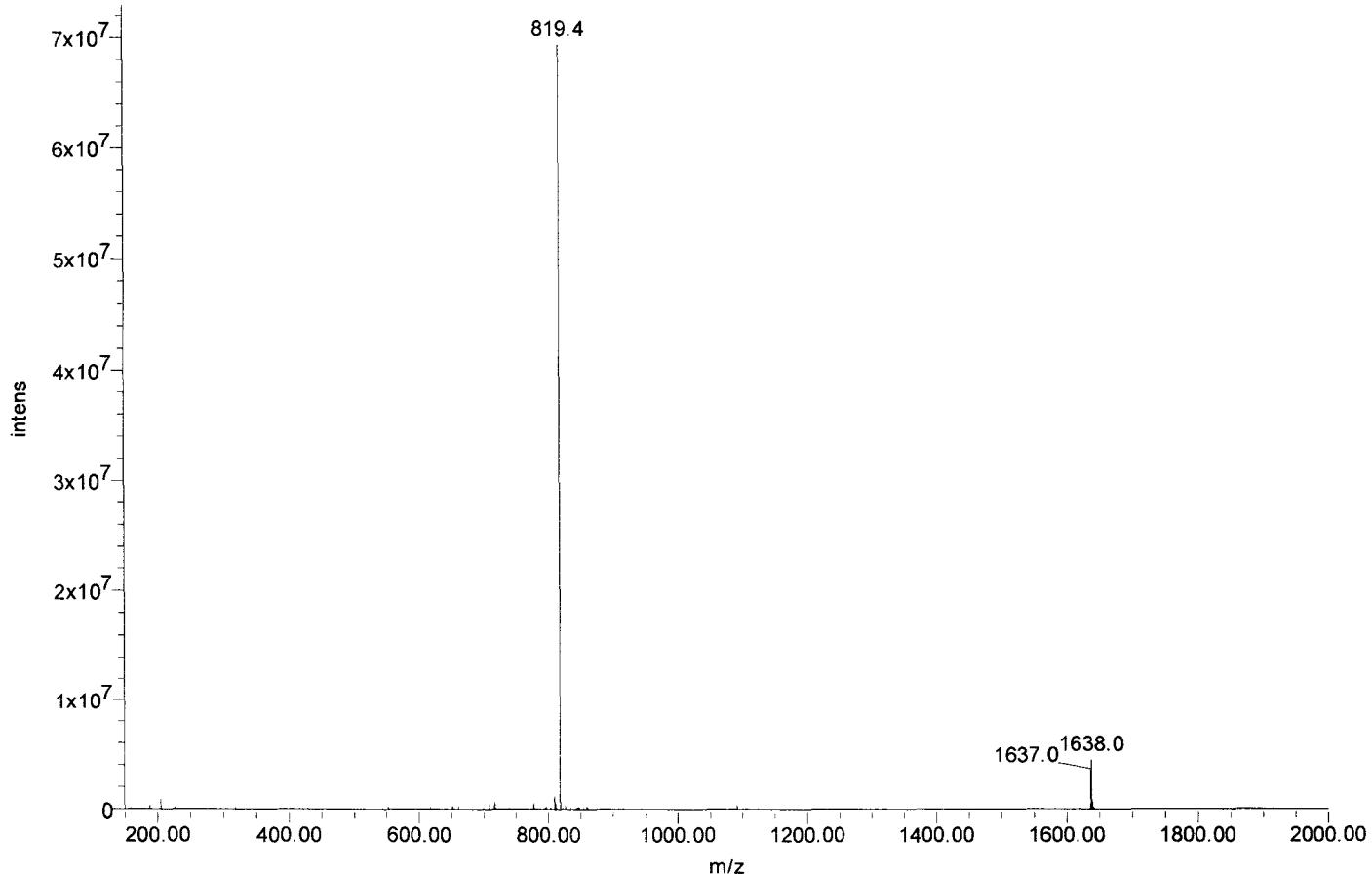


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.8	9.865	279409	19740
2	88.2	10.050	13816908	1143466
3	6.2	10.273	977629	155863
4	3.8	10.686	587421	52686
Sum	100.00		15661368	1371755.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344766      **Lot # :** SW05042T      **Chemist :** Yan Li

Date Acquired : 5/13/2008 16:59:09 CST  
Expected MS : MW: 1636.8  
Acq. Method Set : Import  
Processing Method : 344766\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 PO1 #27  
RGFAAPQFSI.WRRPV  
Cat#5736 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344767                   **Lot #:** SW05068T

**Sequence:** Arg-Gly-Phe-Ala-Ala-Pro-Gln-Phe-Ser-Leu-Trp-Arg-Arg-Pro-Val

**Molecular Weight:** 1788.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 78.4%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Leu	1.00	1.11		Ser	1.00	0.81	
Arg	3.00	3.00		Phe	2.00	2.00		Trp	1.00	0.00	*1
Glx	1.00	1.02		Pro	2.00	2.11		Val	1.00	0.99	
Gly	1.00	1.00									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/20/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

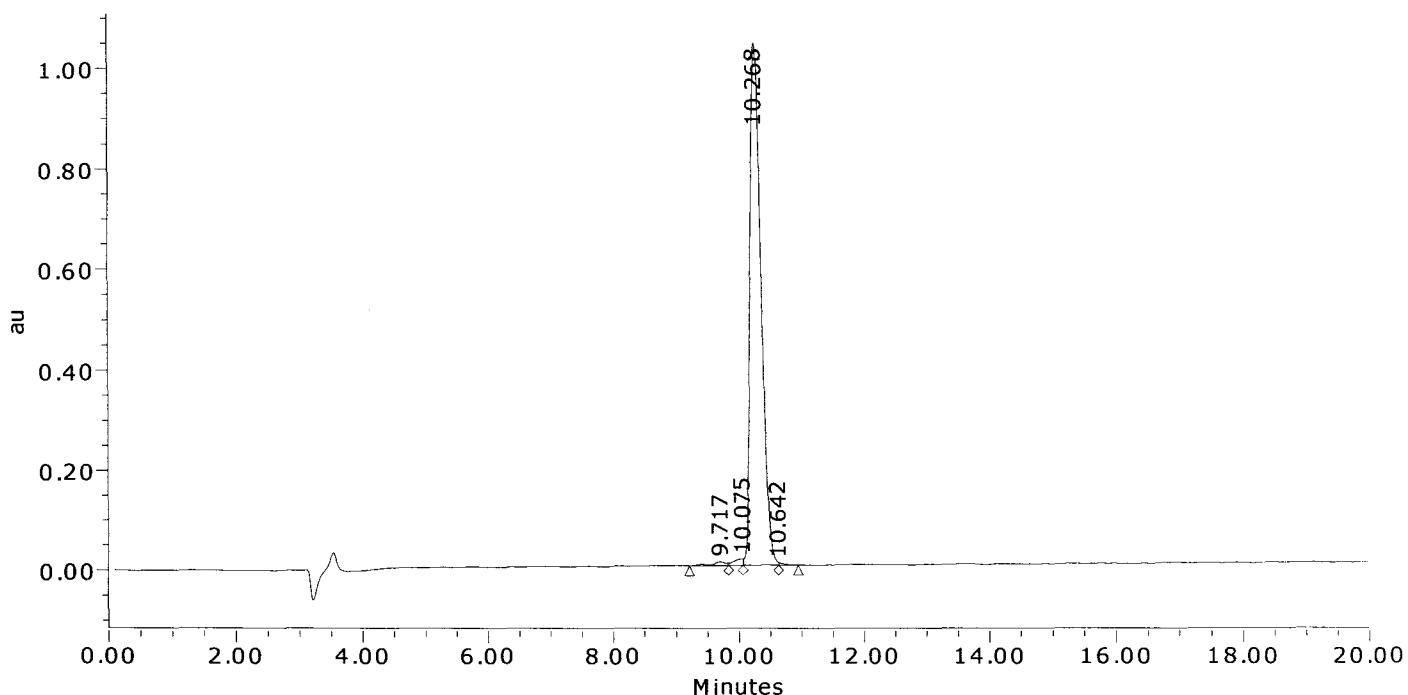
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344767/SW05068T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 12:13:51 CST  
Sample ID: 344767 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344767\_A Final\_PDA  
Date Acquired: 5/14/2008 17:53:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.0	9.717	125173	7867
2	0.9	10.075	121231	12231
3	97.9	10.268	12743337	1041790
4	0.2	10.642	28643	4934
Sum	100.00		13018384	1066820.7

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344767

Lot # : SW05068T

Chemist : Yan Li

Date Acquired :

5/14/2008 17:53:26 CST

Expected MS:

MW: 1788.1

Acq. Method Set :

Import

Processing Method :

344767\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

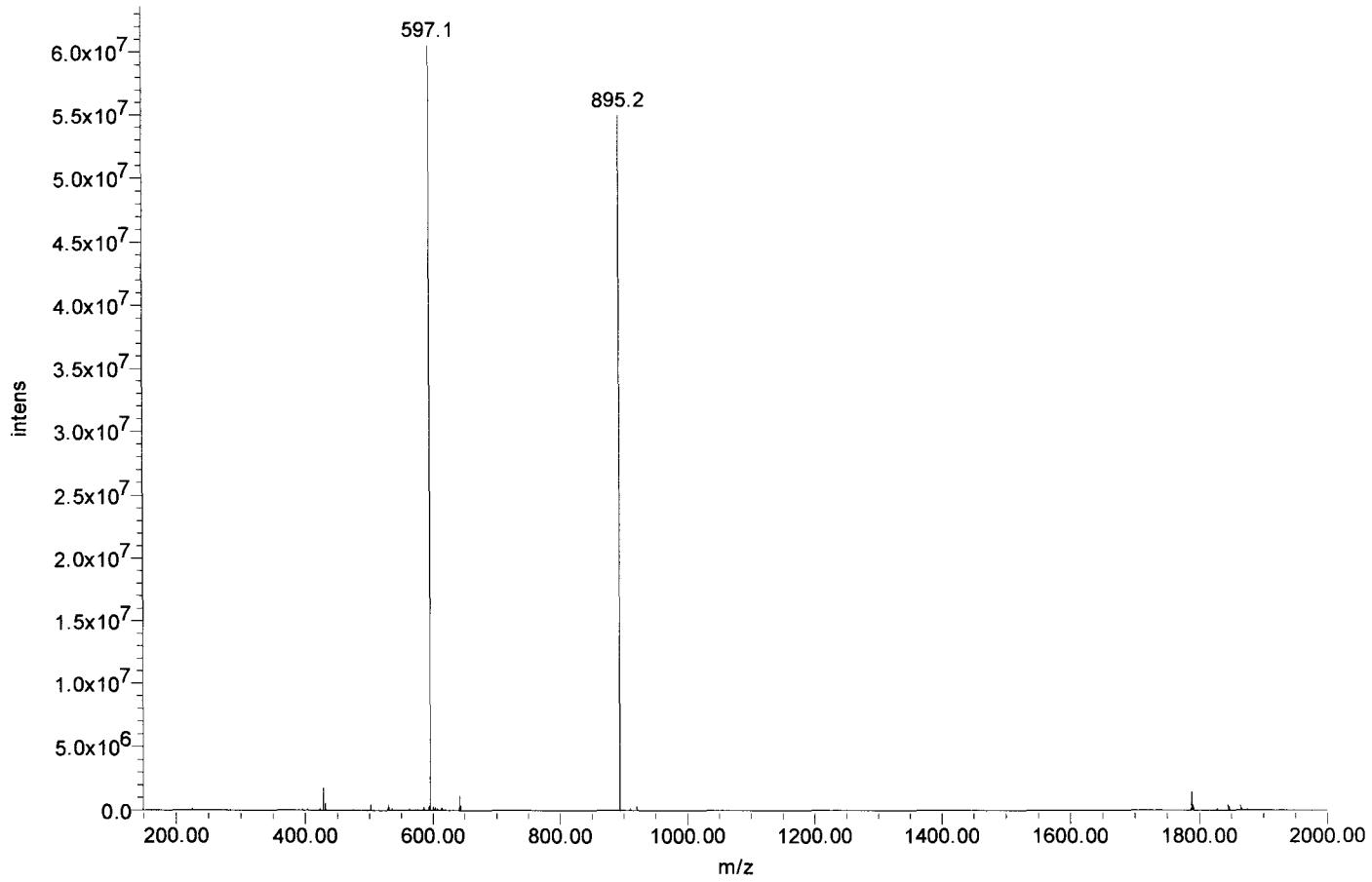
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #28  
APQFSLWRRPVVTAH  
Cat#5737 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344768                   **Lot #:** SW05050T  
**Sequence:** Ala-Pro-Gln-Phe-Ser-Leu-Trp-Arg-Arg-Pro-Val-Val-Thr-Ala-His  
**Molecular Weight:** 1765.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 70.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.95		Leu	1.00	1.15		Thr	1.00	0.95	
Arg	2.00	2.00		Phe	1.00	1.01		Trp	1.00	0.00	*1
Glx	1.00	1.01		Pro	2.00	2.15		Val	2.00	1.63	*2
His	1.00	1.01		Ser	1.00	0.85					

\*1 Trp was completely destroyed during hydrolysis.

\*2 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

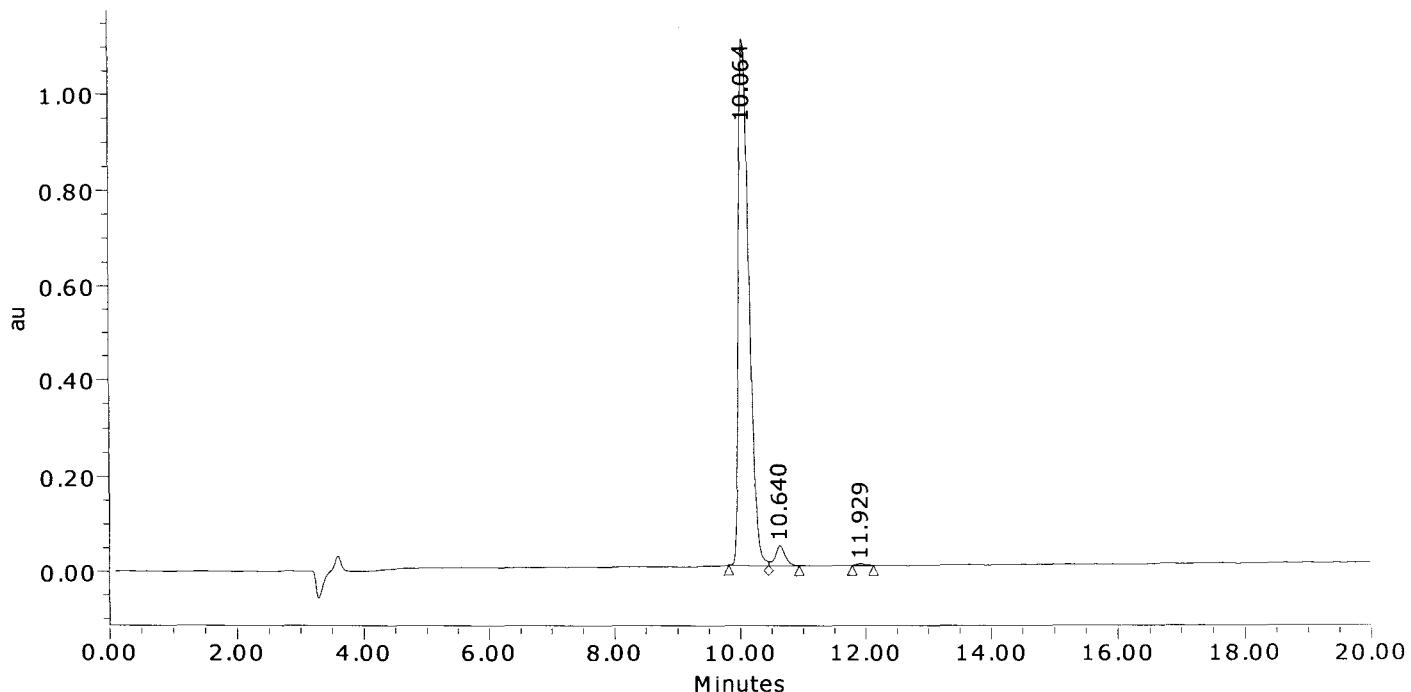
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344768/SW05050T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 11:24:02 CST  
Sample ID: 344768 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344768\_A Final\_PDA  
Date Acquired: 5/13/2008 19:04:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	96.3	10.064	12868611	1103893
2	3.4	10.640	459000	42255
3	0.2	11.929	30964	3286
Sum	100.00		13358575	1149434.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344768

Lot # : SW05050T

Chemist : Yan Li

Date Acquired :

5/13/2008 19:04:04 CST

Expected MS :

MW: 1765.1

Acq. Method Set :

Import

Processing Method :

344768\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

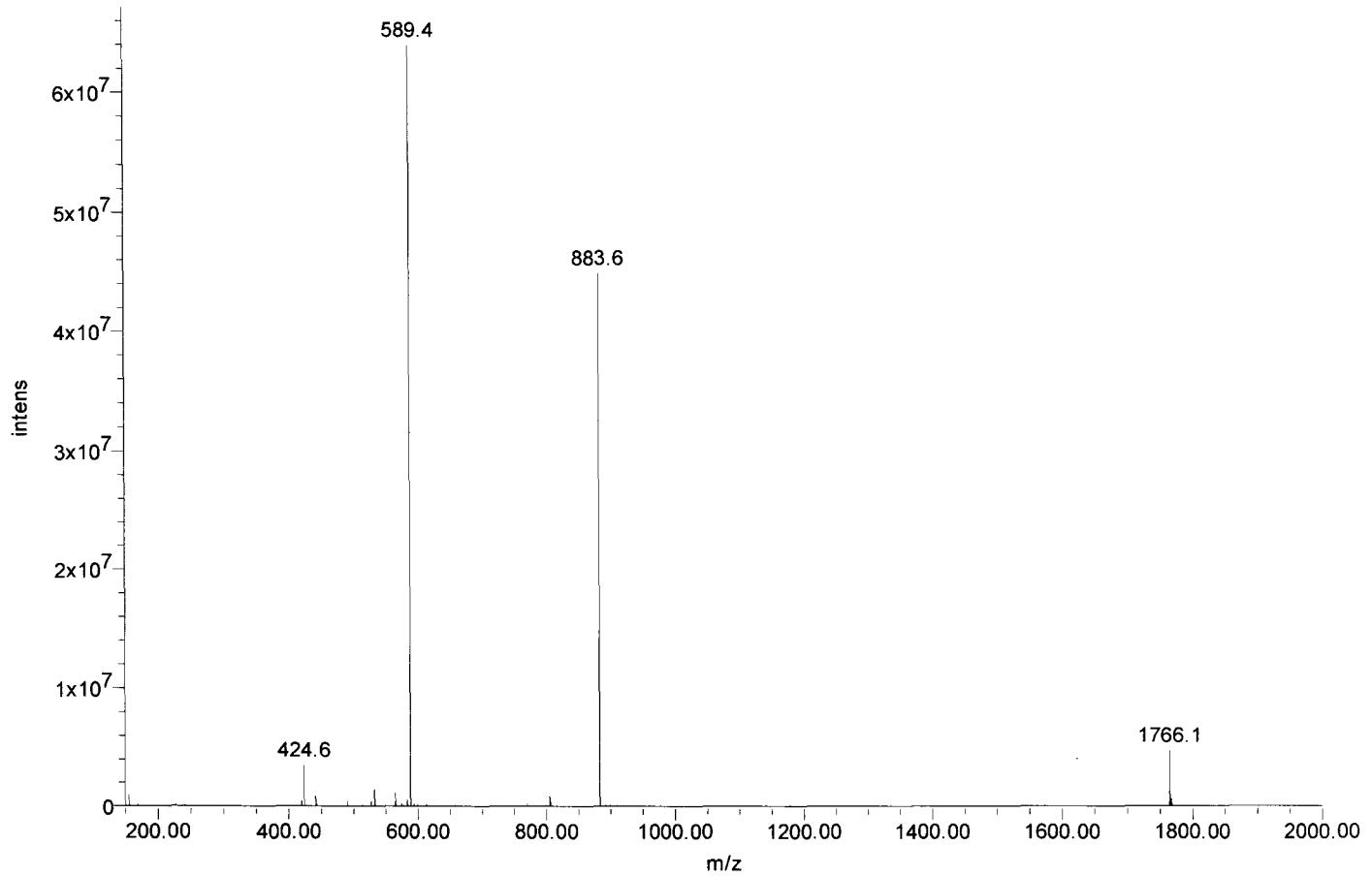
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #29  
SLWRRPVVTAHIEGQ  
Cat#5738 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344769                   **Lot #:** SW05041T  
**Sequence:** Ser-Leu-Trp-Arg-Arg-Pro-Val-Val-Thr-Ala-His-Ile-Glu-Gly-Gln  
**Molecular Weight:** 1749.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 86.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 70.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.10		His	1.00	1.02		Ser	1.00	0.86	
Arg	2.00	2.04		Ile	1.00	0.99		Thr	1.00	1.03	
Glx	2.00	1.98		Leu	1.00	1.14		Trp	1.00	0.00	*1
Gly	1.00	1.00		Pro	1.00	0.98		Val	2.00	1.72	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/15/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

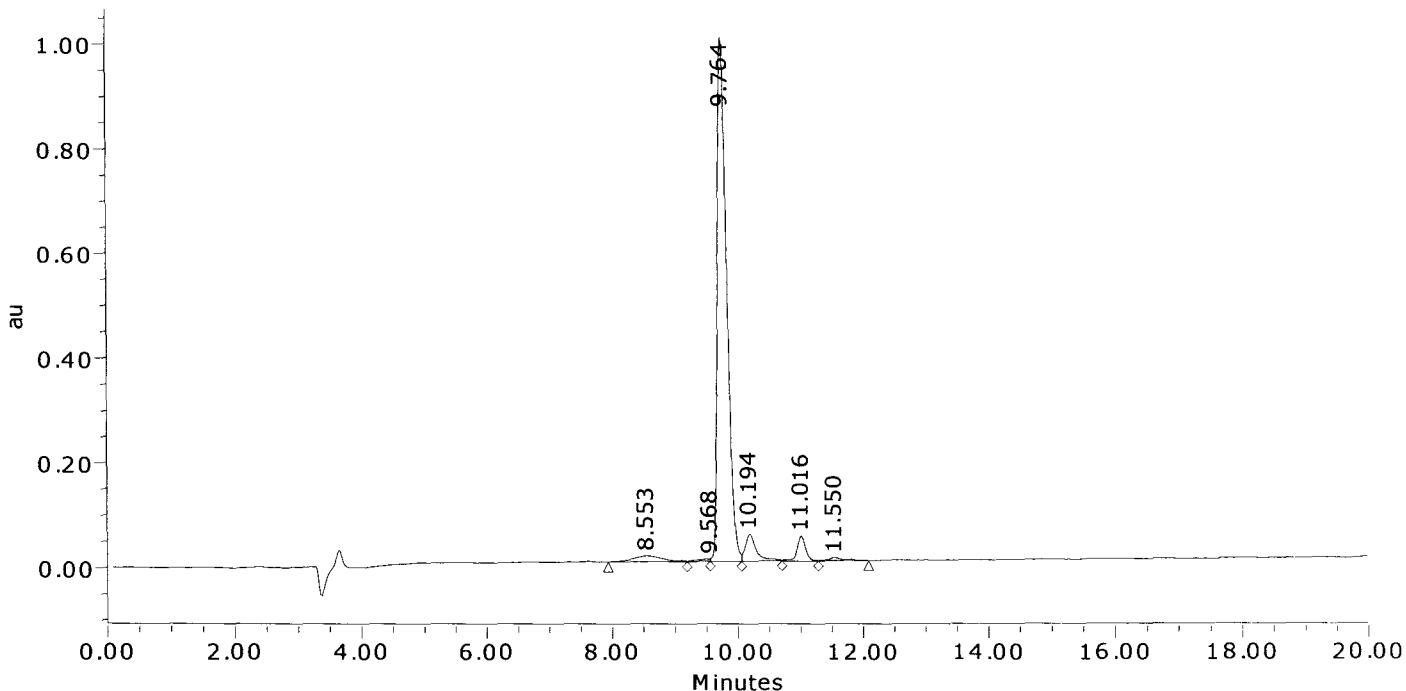
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344769/SW05041T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:23:42 CST  
Sample ID: 344769 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344769\_A Final\_PDA  
Date Acquired: 5/13/2008 20:21:22 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	3.0	8.553	354344	11172
2	0.5	9.568	61666	4871
3	86.9	9.764	10432562	999329
4	5.2	10.194	624605	51271
5	3.7	11.016	445072	46891
6	0.7	11.550	84806	5501
Sum	100.00		12003055	1119034.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344769

Lot # : SW05041T

Chemist : Yan Li

Date Acquired :

5/13/2008 20:21:22 CST

Expected MS :

MW: 1749.0

Acq. Method Set :

Import

Processing Method :

344769\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

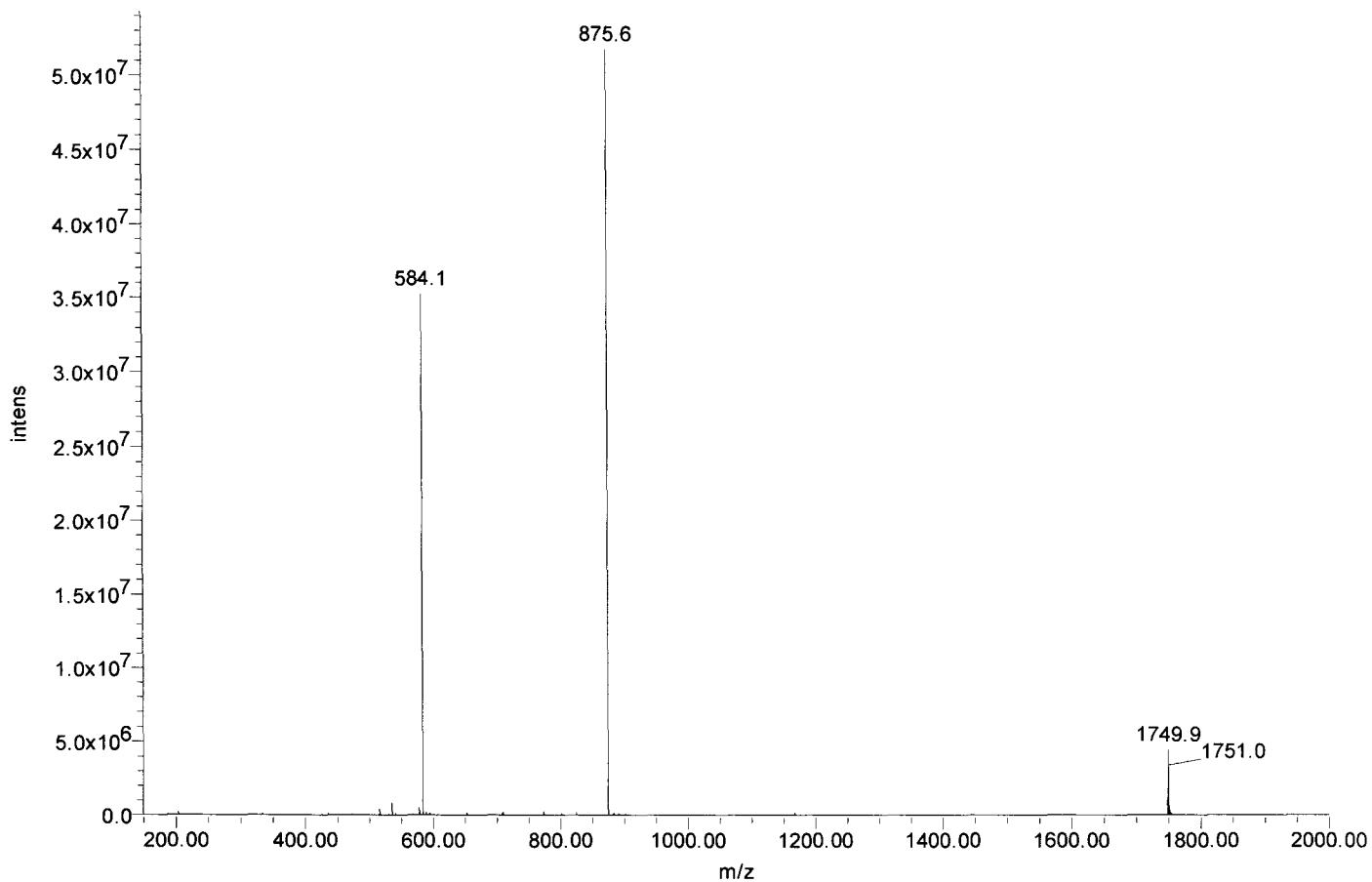
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #30  
RPVVTAHIEGQPVEV  
Cat#5739 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344770                   **Lot #:** SW05063T  
**Sequence:** Arg-Pro-Val-Val-Thr-Ala-His-Ile-Glu-Gly-Gln-Pro-Val-Glu-Val  
**Molecular Weight:** 1630.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	1.00	0.98		Pro	2.00	1.95	
Arg	1.00	0.98		His	1.00	0.96		Thr	1.00	0.98	
Glx	3.00	2.86		Ile	1.00	0.98		Val	4.00	3.43	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/16/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

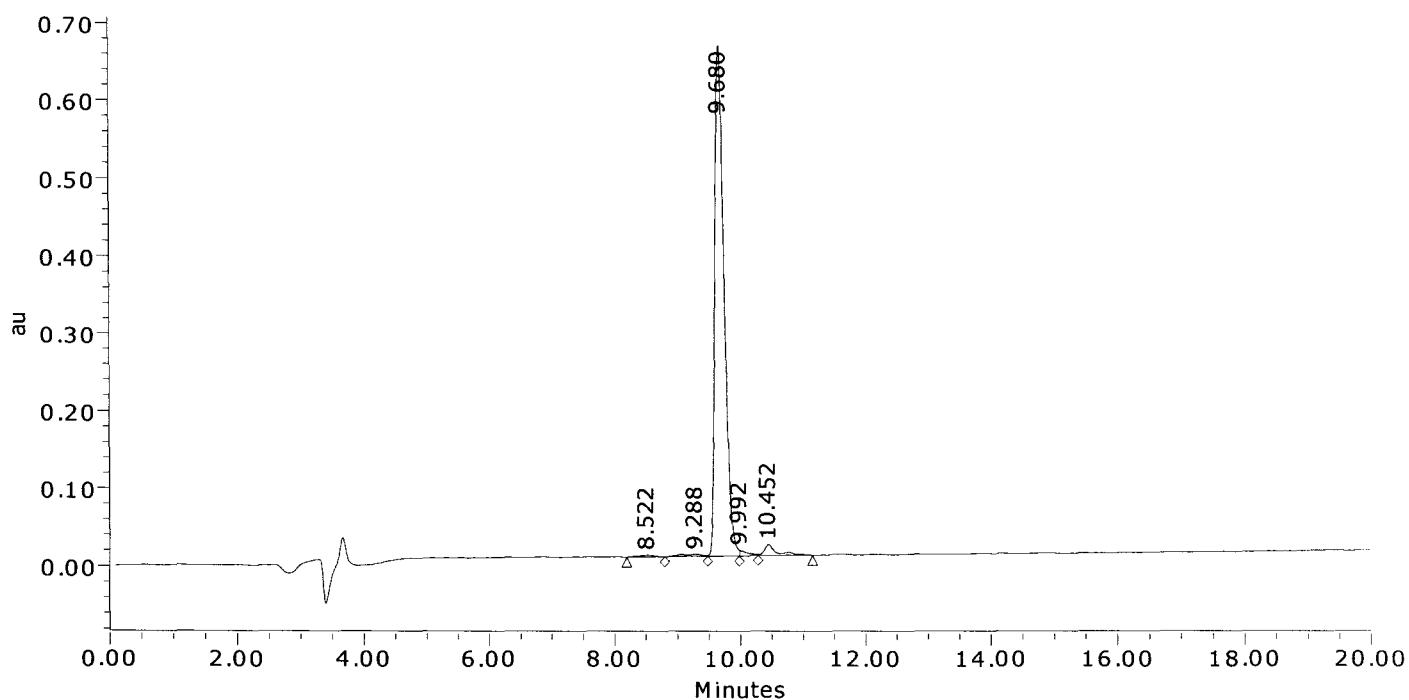
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344770/SW05063T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 12:38:24 CST  
Sample ID: 344770 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344770\_A Final\_PDA  
Date Acquired: 5/14/2008 23:30:39 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



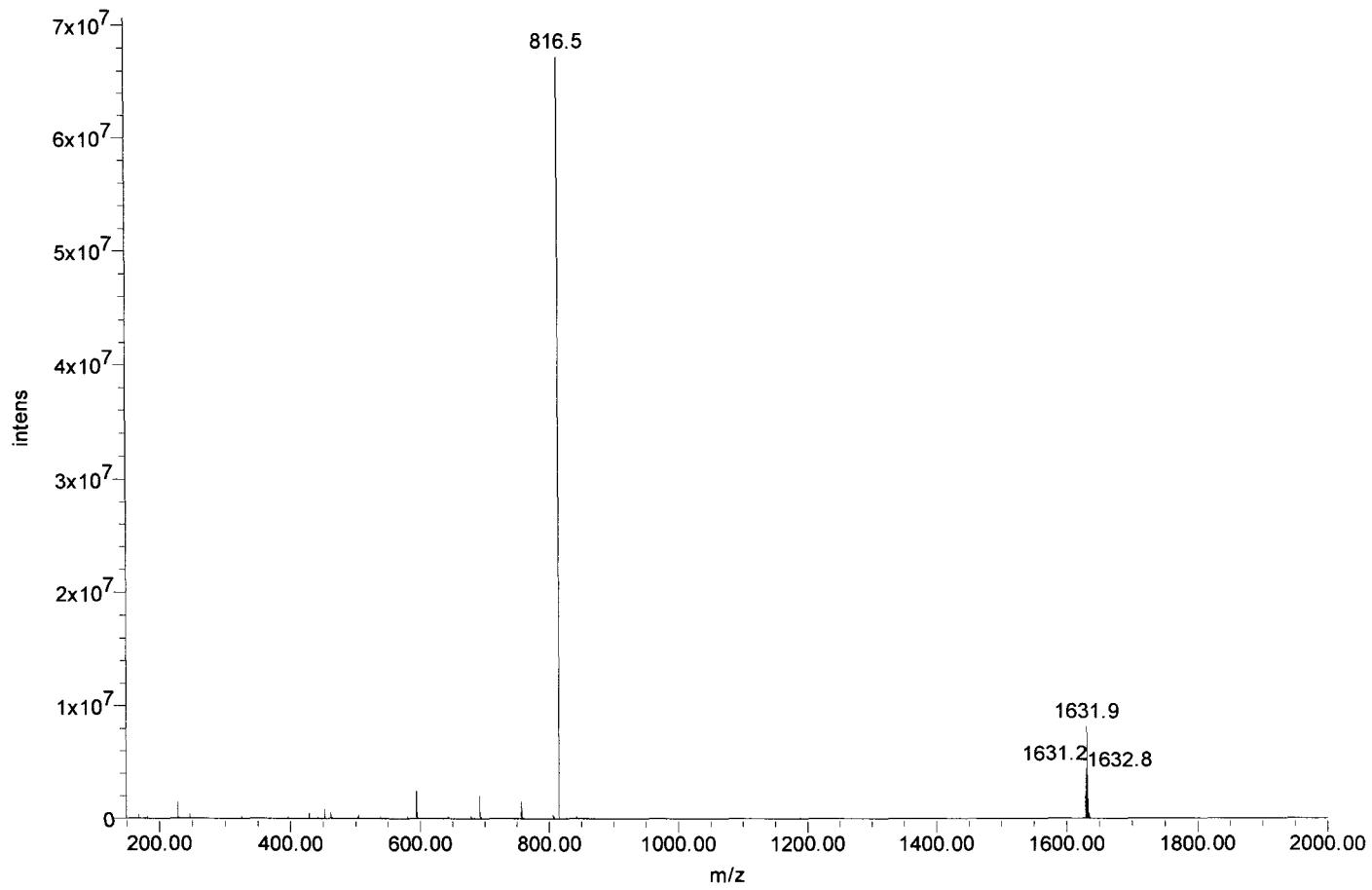
	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	8.522	41824	2460
2	0.9	9.288	62473	2609
3	94.8	9.680	6730352	658352
4	1.0	9.992	69450	7548
5	2.7	10.452	194835	13600
Sum	100.00		7098935	684569.2

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344770      **Lot # :** SW05063T      **Chemist :** Yan Li

**Date Acquired :** 5/14/2008 23:30:39 CST  
**Expected MS :** MW: 1630.9  
**Acq. Method Set :** Import  
**Processing Method :** 344770\_A Final\_MS  
**Data Path :** My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
**Run Time :** 25.0 Minutes  
**Flow rate :** 1.0 mL/min  
**Buffers :** A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
**Instruments :** Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #31  
TAHIEGQPVEVLLDT  
Cat#5740 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344771                   **Lot #:** SW05087T

**Sequence:** Thr-Ala-His-Ile-Glu-Gly-Gln-Pro-Val-Glu-Val-Leu-Leu-Asp-Thr

**Molecular Weight:** 1621.8 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.4%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 81.4%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.98		His	1.00	0.94		Pro	1.00	0.89	
Asx	1.00	1.00		Ile	1.00	0.90		Thr	2.00	1.97	
Glx	3.00	3.30		Leu	2.00	2.18		Val	2.00	1.96	
Gly	1.00	0.96									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/21/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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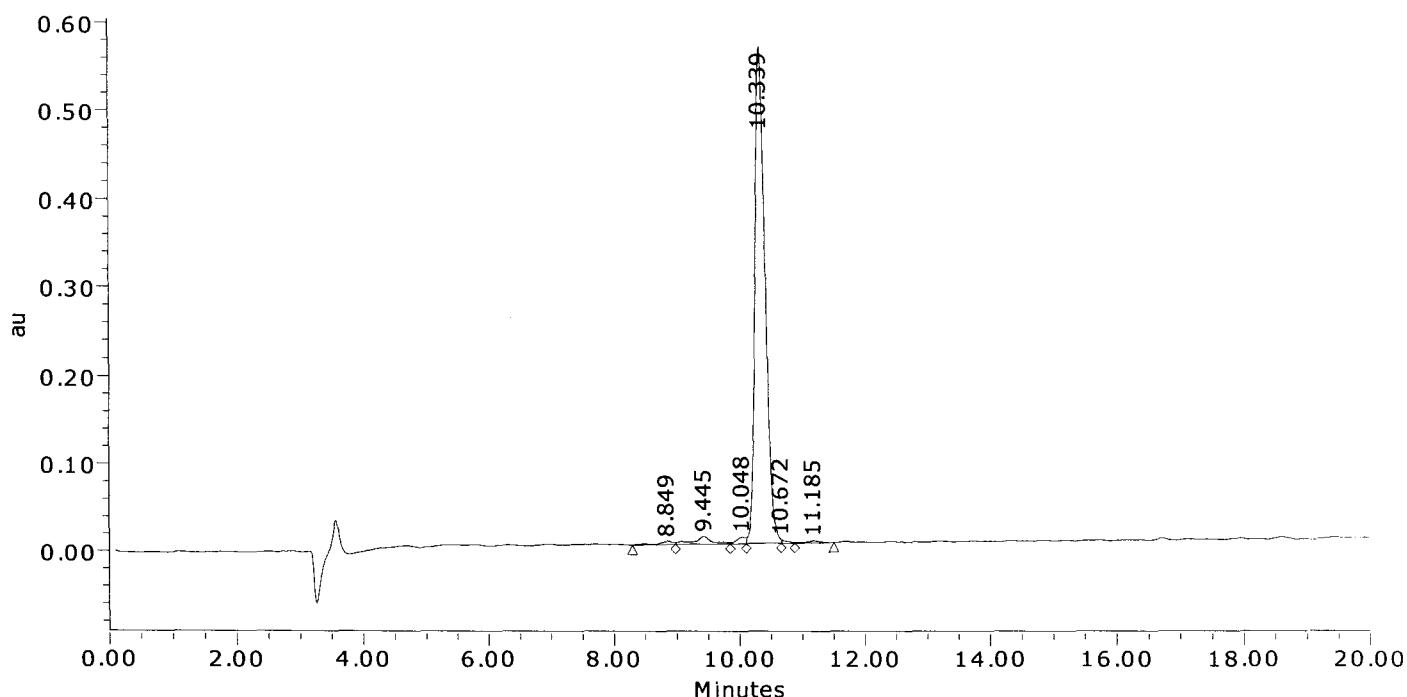
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344771/SW05087T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 11:07:19 CST  
Sample ID: 344771 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344771\_A Final\_PDA  
Date Acquired: 5/15/2008 19:49:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.9	8.849	59789	3562
2	2.6	9.445	177669	8670
3	1.1	10.048	77689	7610
4	94.4	10.339	6380356	563317
5	0.3	10.672	23578	4100
6	0.6	11.185	42917	2467
<b>Sum</b>	<b>100.00</b>		<b>6761998</b>	<b>589725.8</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344771

Lot # : SW05087T

Chemist : Yan Li

Date Acquired :

5/15/2008 19:49:26 CST

Expected MS :

MW: 1621.8

Acq. Method Set :

Import

Processing Method :

344771\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

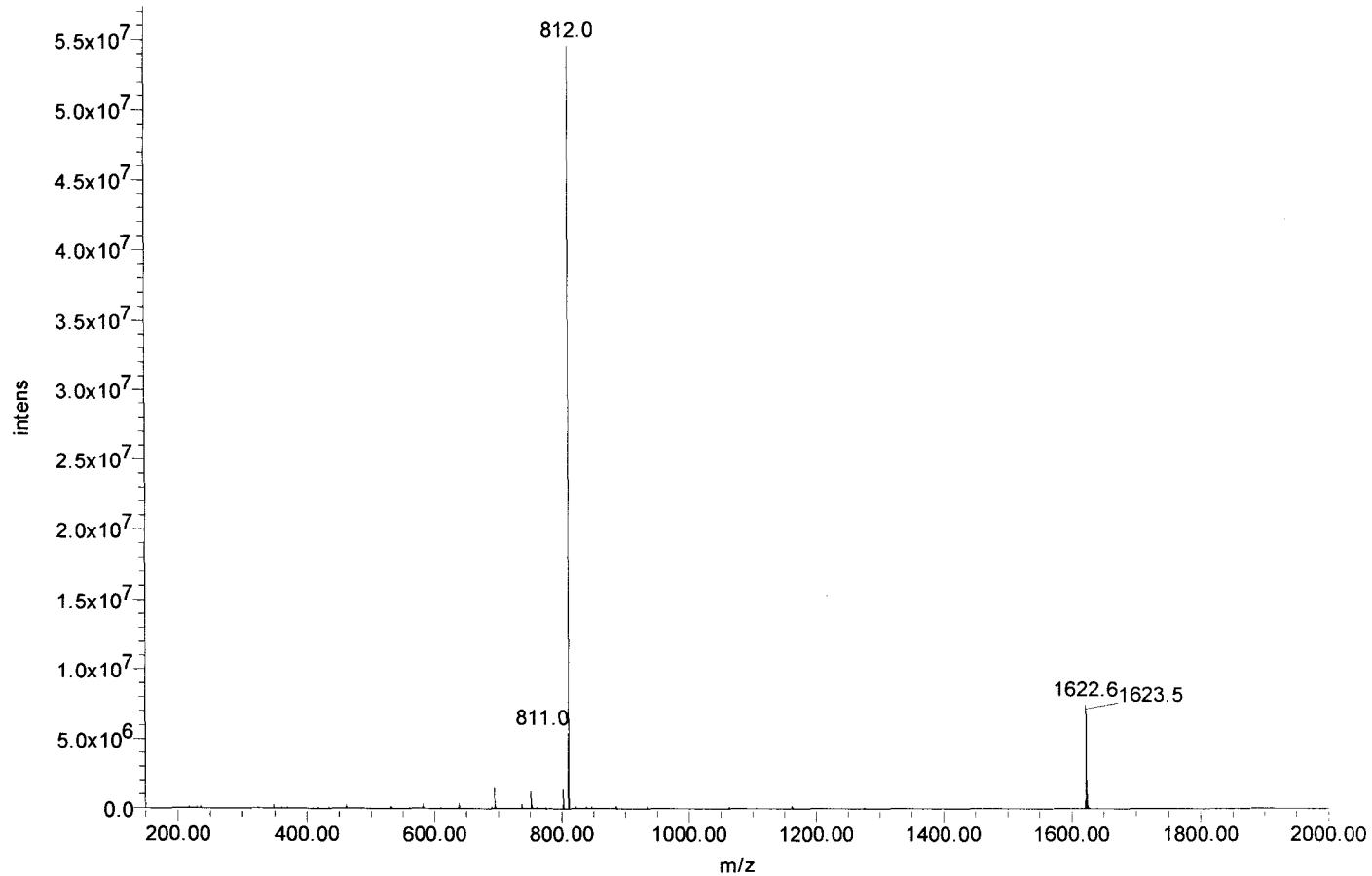
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #32  
EGQPVEVILDTGADD  
Cat#5741 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344772                   **Lot #:** SW05078T

**Sequence:** Glu-Gly-Gln-Pro-Val-Glu-Val-Leu-Leu-Asp-Thr-Gly-Ala-Asp-Asp

**Molecular Weight:** 1557.6 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 90.4%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	2.00	2.00		Thr	1.00	0.97	
Asx	3.00	2.94		Leu	2.00	2.16		Val	2.00	2.06	
Glx	3.00	2.97		Pro	1.00	0.90					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/22/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

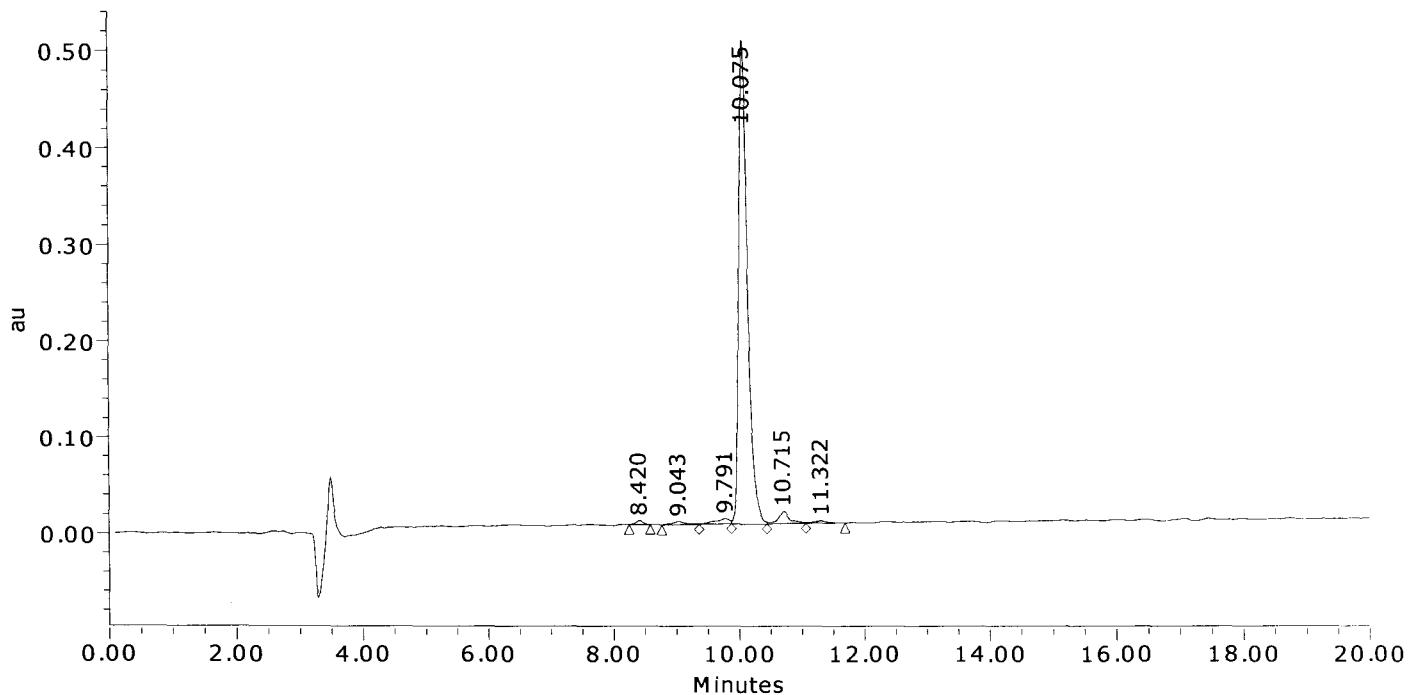
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344772/SW05078T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 9:50:04 CST  
Sample ID: 344772 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344772\_A Final\_PDA  
Date Acquired: 5/15/2008 15:31:17 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	8.420	29213	3810
2	0.9	9.043	46312	3138
3	1.7	9.791	88823	5649
4	93.1	10.075	4884642	501053
5	2.9	10.715	153359	12361
6	0.8	11.322	41750	2323
Sum	100.00		5244099	528333.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344772

Lot # : SW05078T

Chemist : Yan Li

Date Acquired :

5/15/2008 17:43:12 CST

Expected MS :

MW: 1557.6

Acq. Method Set :

Import

Processing Method :

344772\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

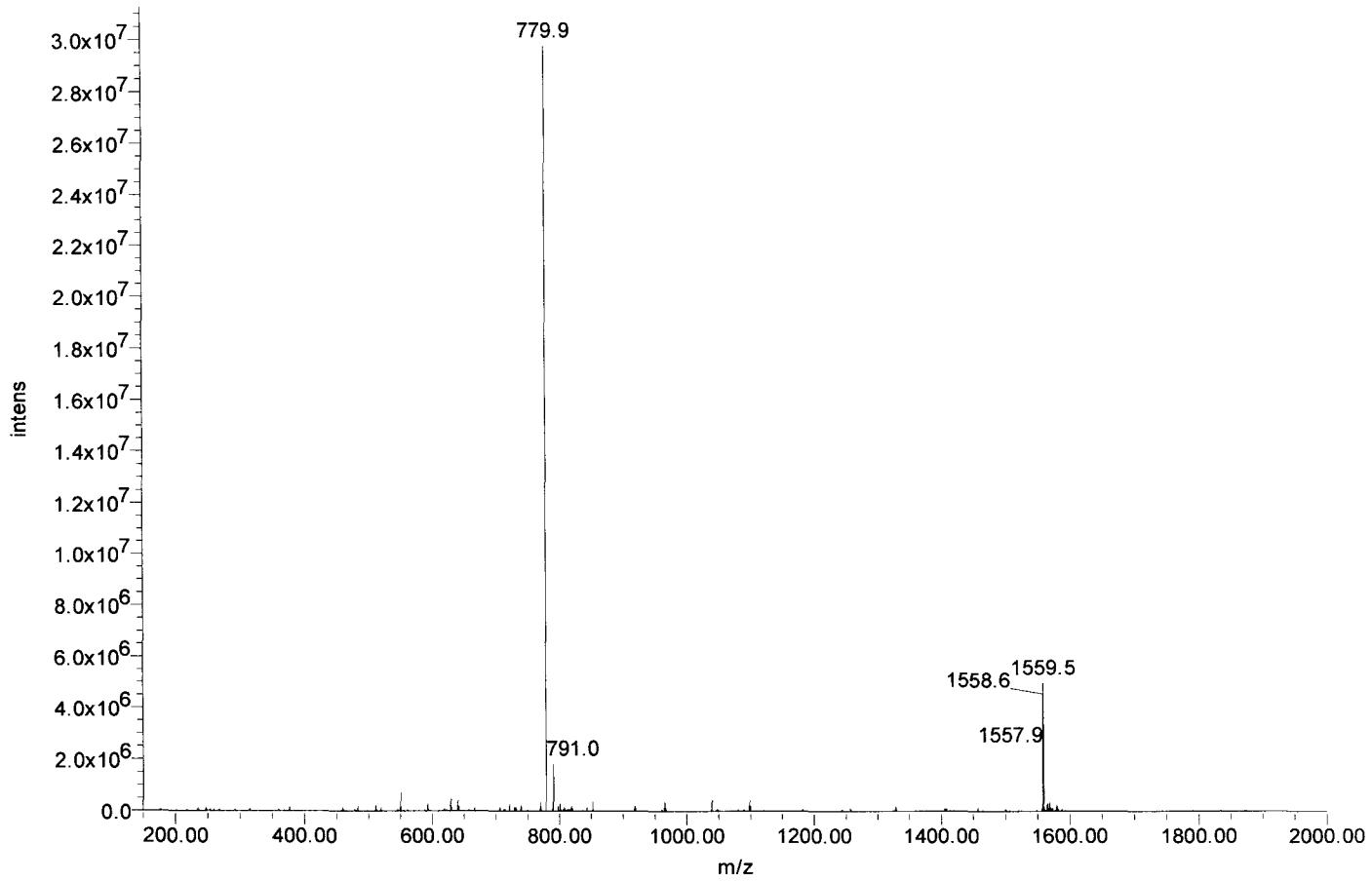
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #33  
VEVLLDTGADDSTVT  
Cat#5742 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344773                   **Lot #:** SW05174T  
**Sequence:** Val-Glu-Val-Leu-Leu-Asp-Thr-Gly-Ala-Asp-Asp-Ser-Ile-Val-Thr  
**Molecular Weight:** 1546.7 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 90.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 82.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	1.00	0.96		Ser	1.00	0.86	
Asx	3.00	2.94		Ile	1.00	0.72	*1	Thr	2.00	1.95	
Glx	1.00	1.12		Leu	2.00	1.97		Val	3.00	2.59	*1

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/29/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

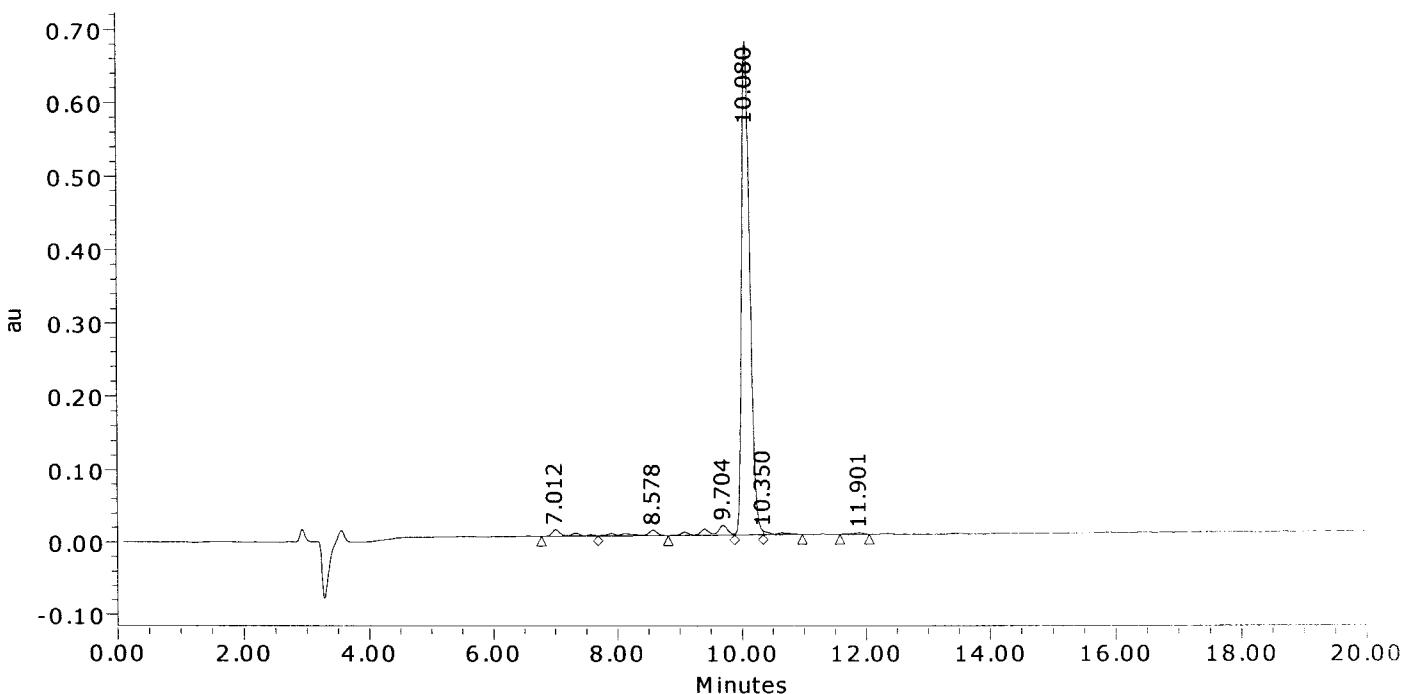
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344773/SW05174T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 10:28:16 CST  
Sample ID: 344773 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344773\_A Final\_PDA  
Date Acquired: 5/24/2008 5:14:13 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 20  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.9	7.012	130119	9080
2	2.1	8.578	142936	7552
3	3.8	9.704	254515	13540
4	90.9	10.080	6162972	674245
5	0.9	10.350	62945	5304
6	0.4	11.901	23922	1864
Sum	100.00		6777409	711585.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344773**

**Lot # : SW05174T**

**Chemist : Yan Li**

Date Acquired :

5/26/2008 16:38:46 CST

Expected MS :

MW: 1546.7

Acq. Method Set :

Import

Processing Method :

344773\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

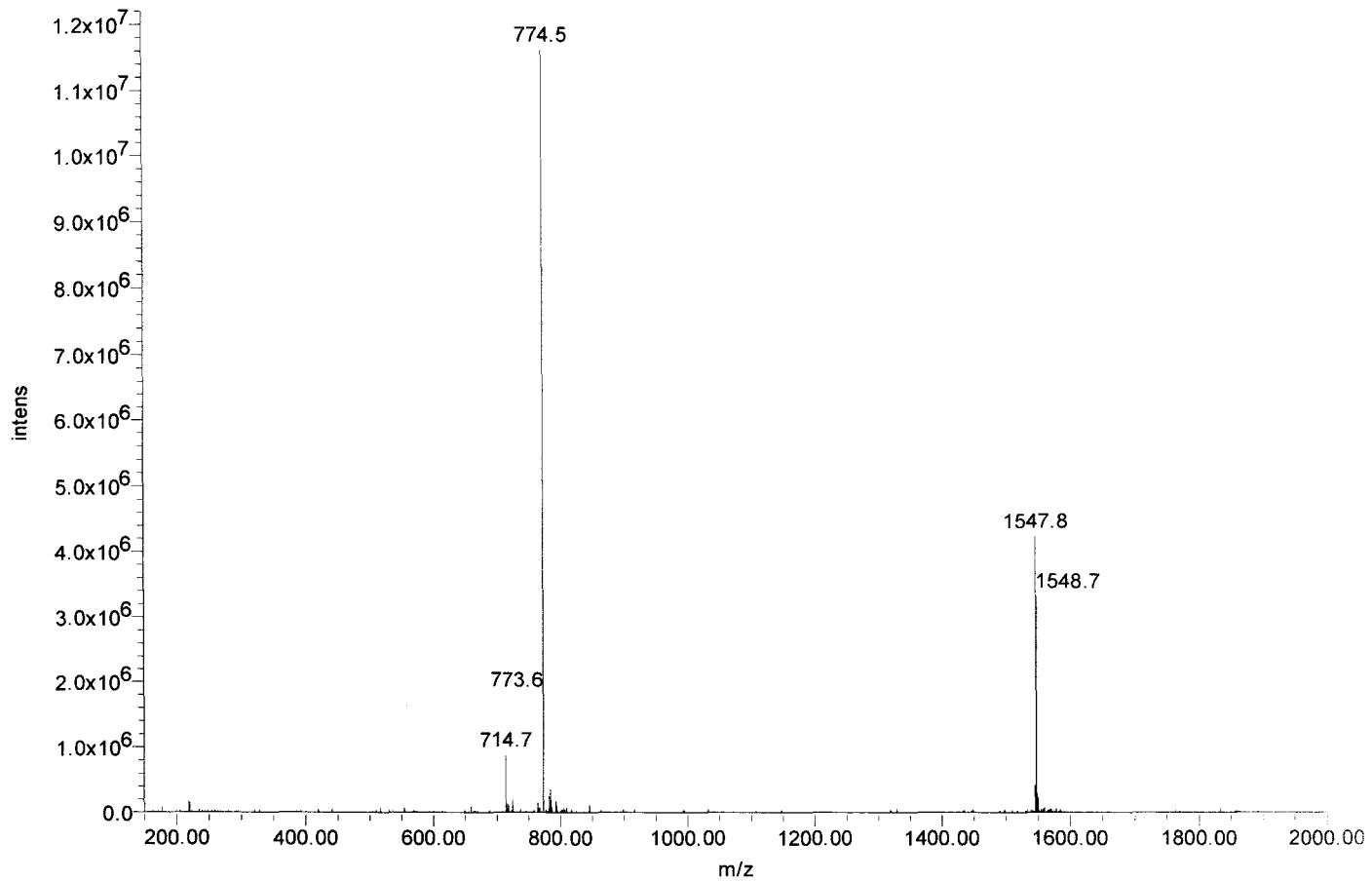
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #34  
LDTGADDISIVTGIEL  
Cat#5743 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344774                   **Lot #:** SW05110T  
**Sequence:** Leu-Asp-Thr-Gly-Ala-Asp-Asp-Ser-Ile-Val-Thr-Gly-Ile-Glu-Leu  
**Molecular Weight:** 1518.6 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 93.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 77.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/19/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	2.00	2.00		Ser	1.00	0.82	
Asx	3.00	2.90		Ile	2.00	1.77	*1	Thr	2.00	1.90	
Glx	1.00	0.98		Leu	2.00	2.22		Val	1.00	0.80	*1

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/21/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

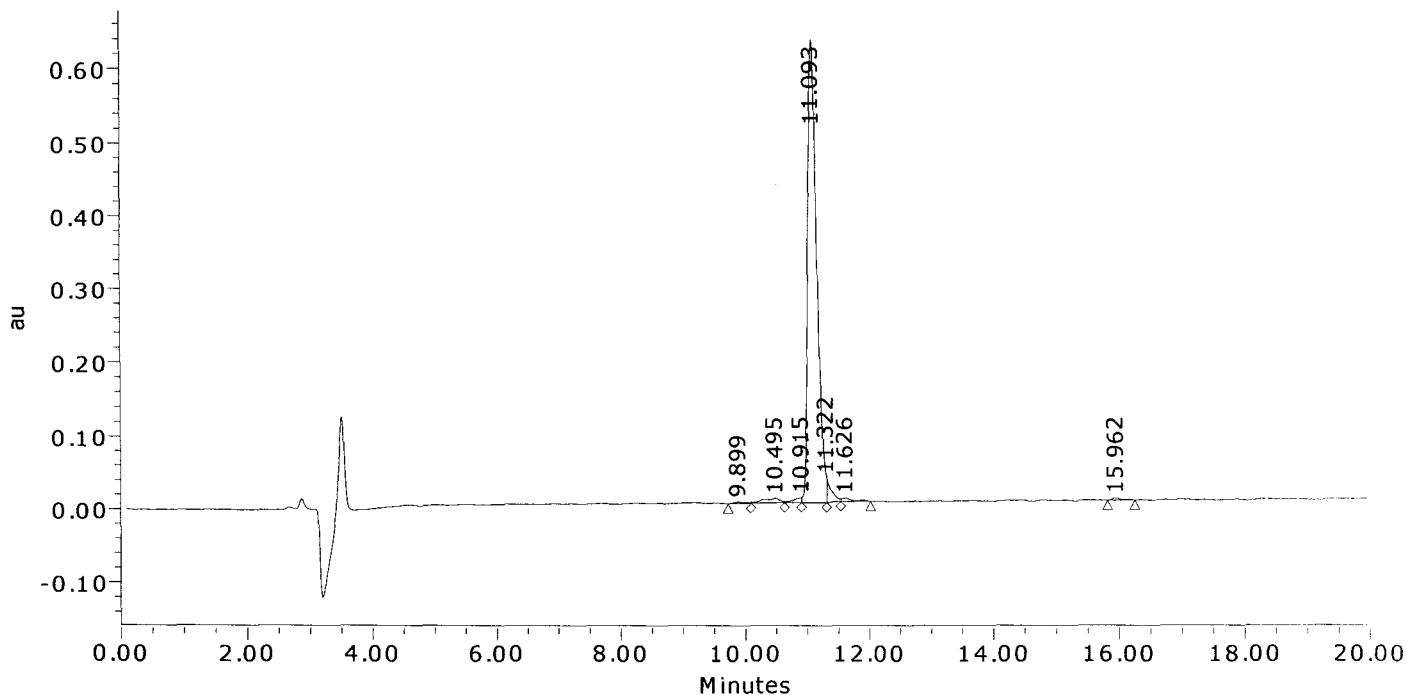
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344774/SW05110T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 9:51:47 CST  
Sample ID: 344774 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344774\_A\_Final\_PDA  
Date Acquired: 5/19/2008 17:41:01 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li

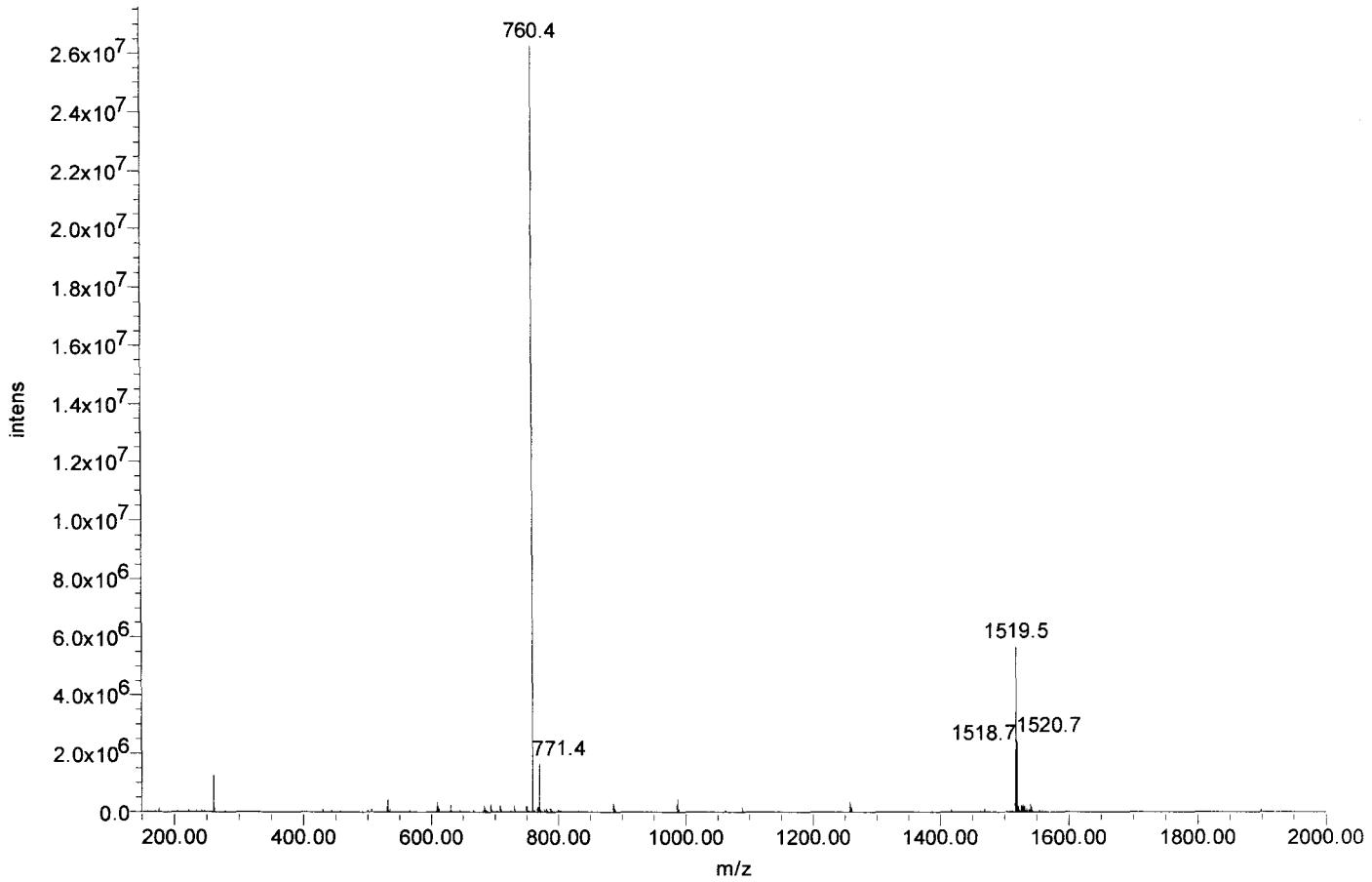


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	9.899	24341	1929
2	1.7	10.495	114416	5901
3	0.9	10.915	59136	6398
4	93.2	11.093	6350667	629438
5	2.5	11.322	172790	32951
6	0.9	11.626	61228	4493
7	0.5	15.962	32764	2826
Sum	100.00		6815342	683934.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344774      **Lot # :** SW05110T      **Chemist :** Yan Li

Date Acquired : 5/20/2008 13:52:03 CST  
Expected MS : MW: 1518.6  
Acq. Method Set : Import  
Processing Method : 344774\_A\_Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #35  
ADD SIVTGIELGPHY  
Cat#5744 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344775                   **Lot #:** SW05057T

**Sequence:** Ala-Asp-Asp-Ser-Ile-Val-Thr-Gly-Ile-Glu-Leu-Gly-Pro-His-Tyr

**Molecular Weight:** 1586.7 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.02		His	1.00	1.04		Ser	1.00	0.80	
Asx	2.00	2.00		Ile	2.00	1.74	*1	Thr	1.00	0.99	
Glx	1.00	1.01		Leu	1.00	1.03		Tyr	1.00	0.98	
Gly	2.00	2.03		Pro	1.00	1.06		Val	1.00	0.74	*1

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

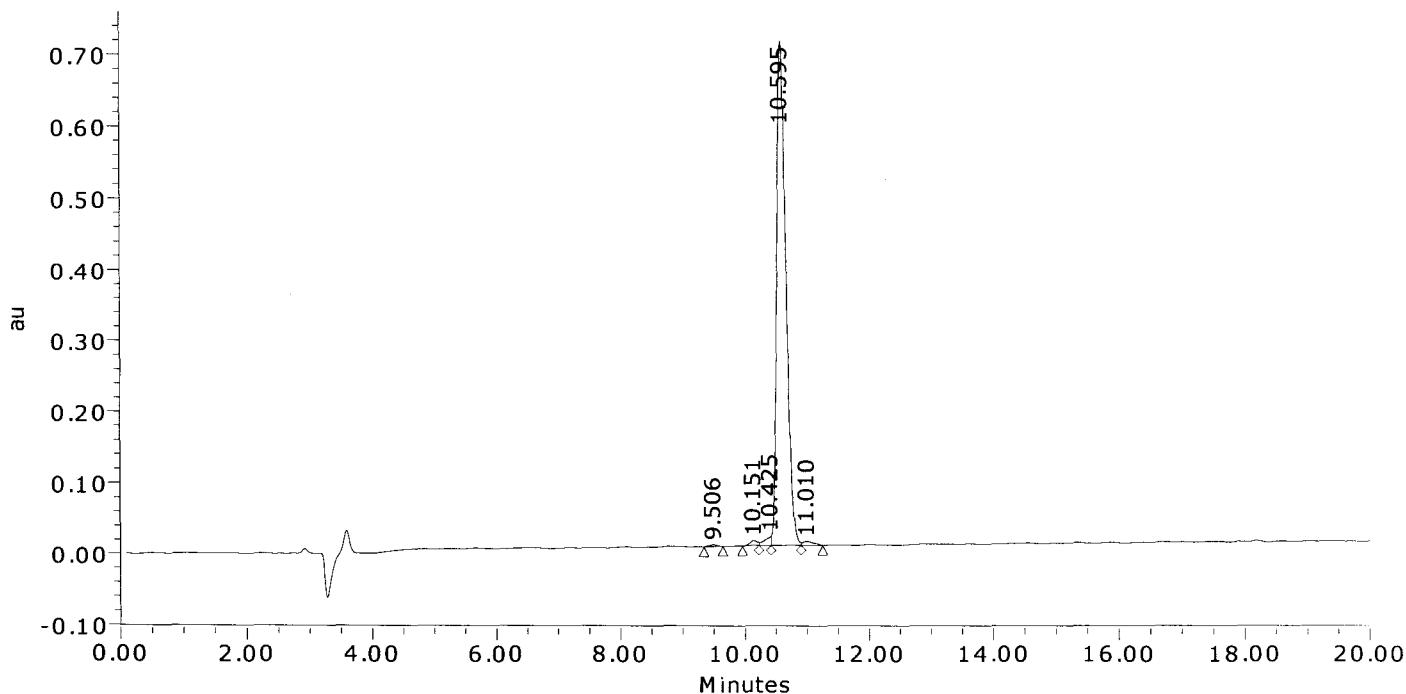
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number:** 344775/SW05057T

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/14/2008 13:31:43 CST
Sample ID:	344775	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344775_A Final_PDA
Date Acquired:	5/14/2008 12:19:39 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

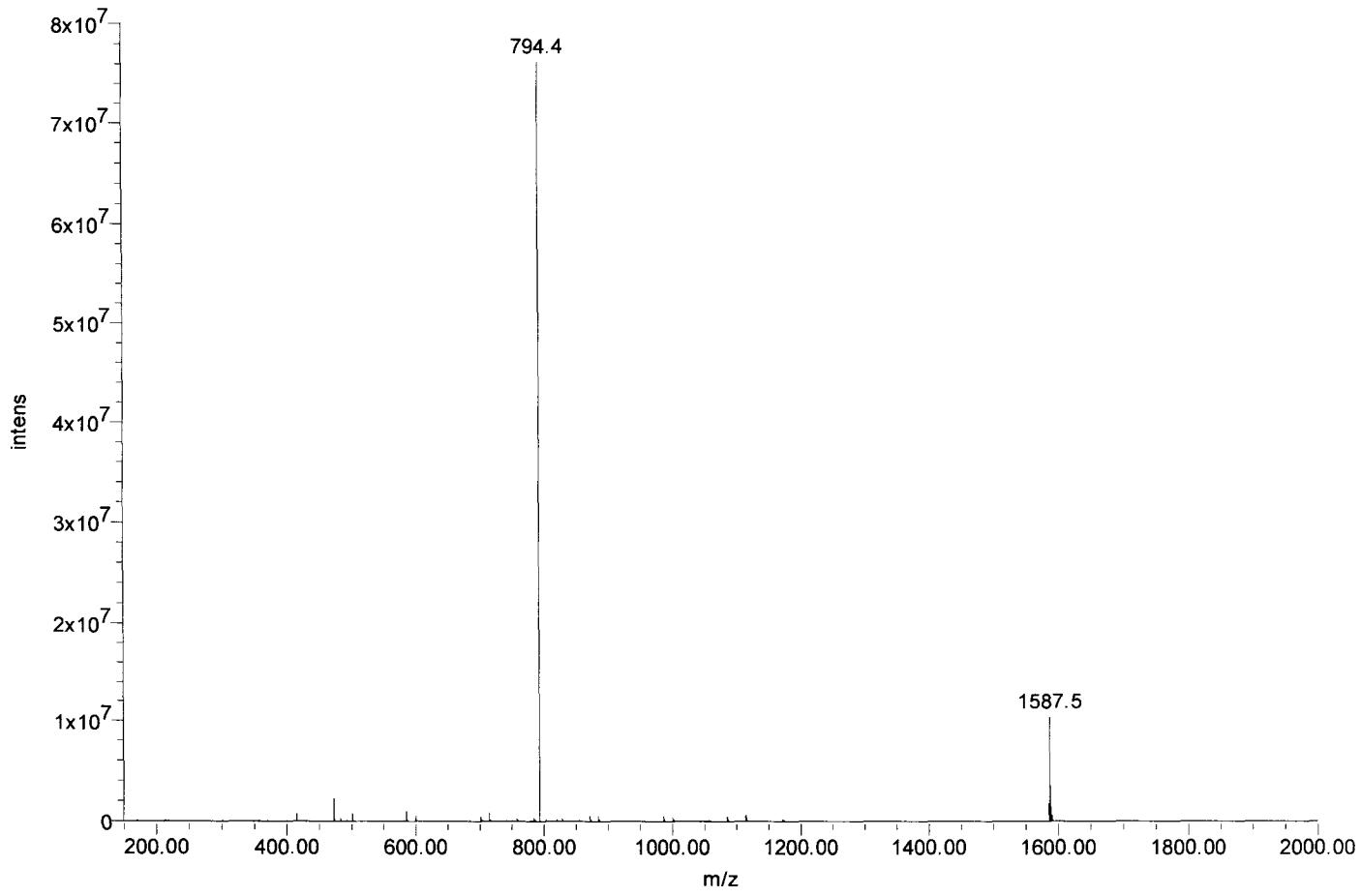


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.3	9.506	21311	2448
2	0.8	10.151	58022	6980
3	1.2	10.425	90222	13148
4	96.9	10.595	7335244	707599
5	0.9	11.010	68117	5574
<b>Sum</b>	<b>100.00</b>		<b>7572917</b>	<b>735748.9</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344775      **Lot # :** SW05057T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 12:19:39 CST  
Expected MS : MW: 1586.7  
Acq. Method Set : Import  
Processing Method : 344775\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #36  
IVTGIELGPHYTPKI  
Cat#5745 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344776                   **Lot #:** SW05007T

**Sequence:** Ile-Val-Thr-Gly-Ile-Glu-Leu-Gly-Pro-His-Tyr-Thr-Pro-Lys-Ile

**Molecular Weight:** 1638.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 81.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Glx	1.00	1.00		Leu	1.00	1.02		Thr	2.00	1.91	
Gly	2.00	2.01		Lys	1.00	0.97		Tyr	1.00	0.96	
His	1.00	0.99		Pro	2.00	2.17		Val	1.00	0.60	*1
Ile	3.00	2.48	*1								

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/14/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

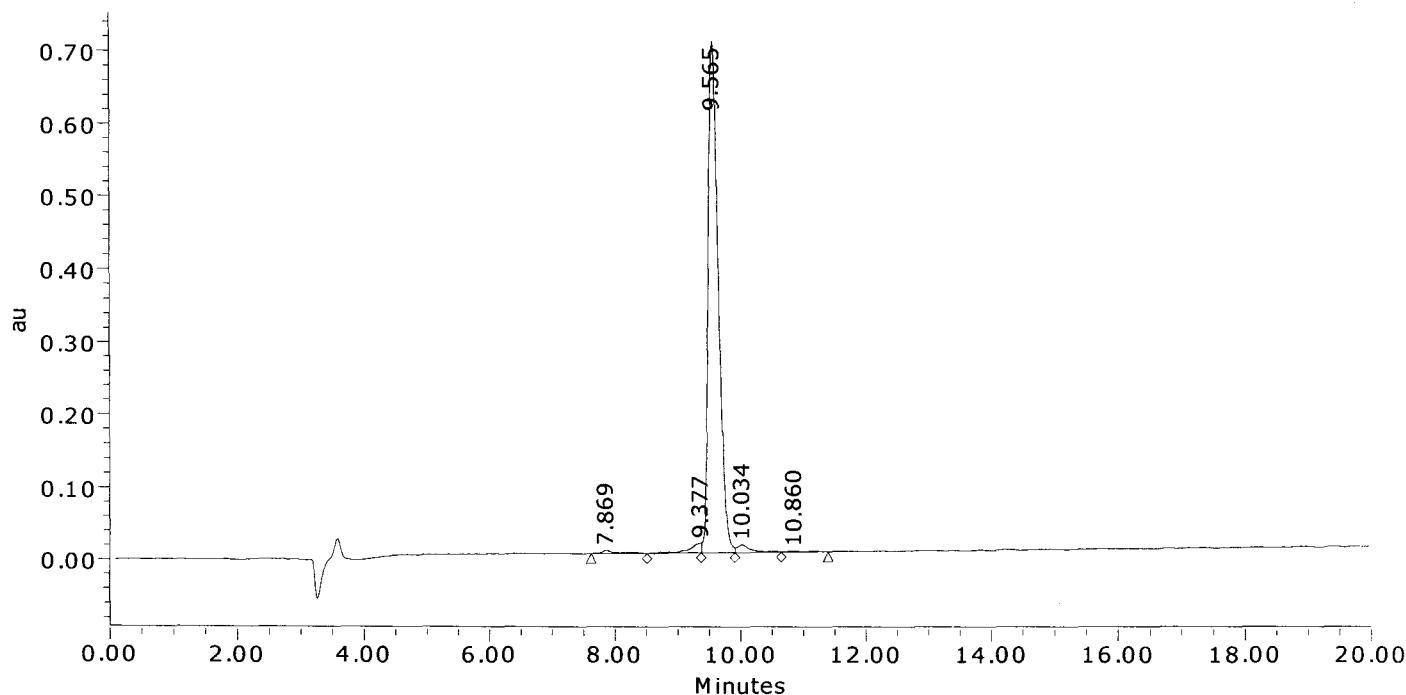
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344776/SW05007T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -Imfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 11:44:11 CST  
Sample ID: 344776 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344776\_A Final\_PDA  
Date Acquired: 5/12/2008 11:07:22 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.9	7.869	78109	4538
2	2.1	9.377	176557	13462
3	94.6	9.565	7906621	703146
4	1.9	10.034	162654	10913
5	0.4	10.860	36091	1408
Sum	100.00		8360031	733467.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344776

Lot # : SW05007T

Chemist : Yan Li

Date Acquired :

5/12/2008 13:44:39 CST

Expected MS :

MW: 1638.0

Acq. Method Set :

Import

Processing Method :

344776\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

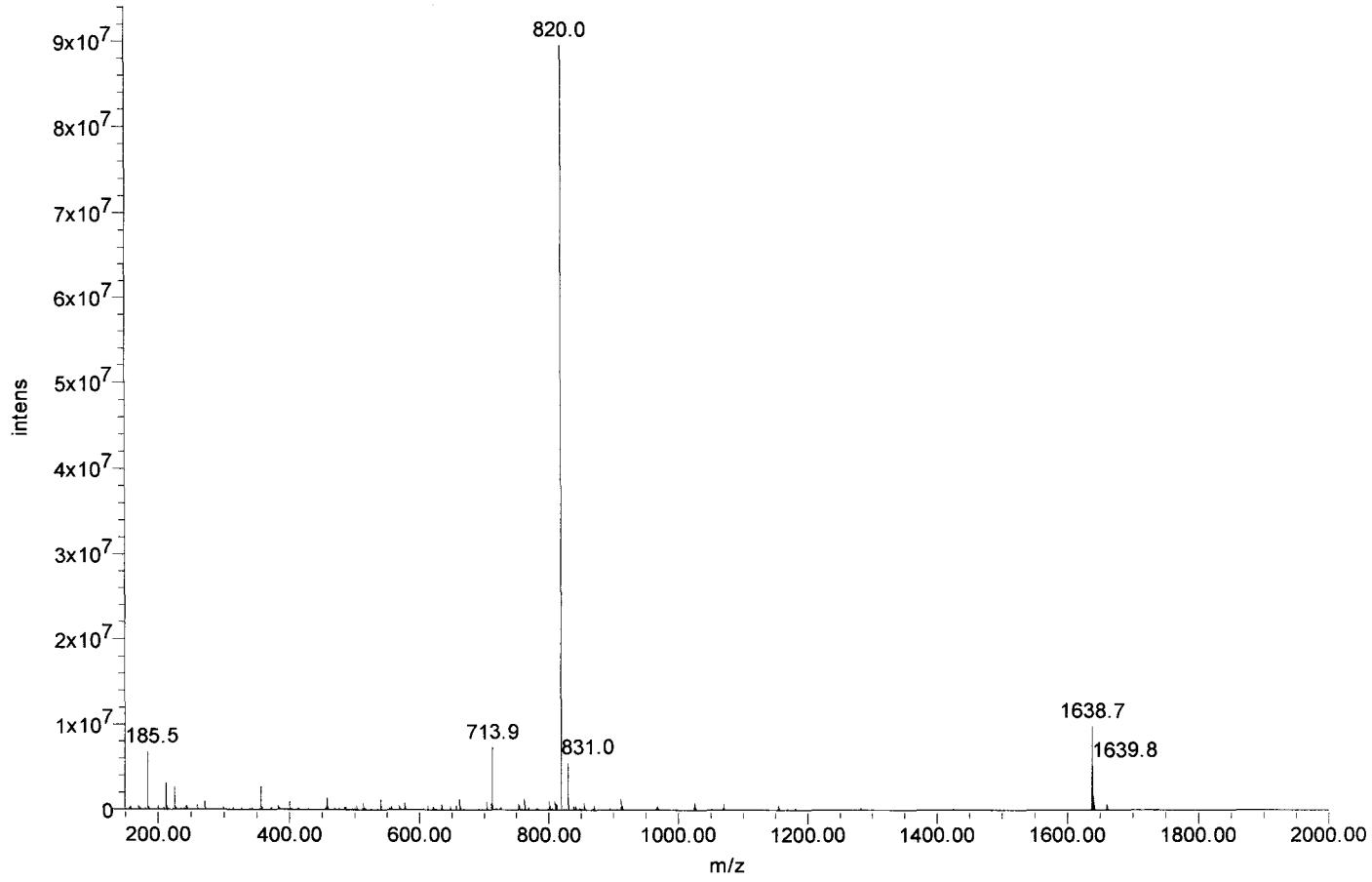
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #37  
IELGPHYTPKIVGGI  
Cat#5746 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344777                   **Lot #:** SW05064T

**Sequence:** Ile-Glu-Leu-Gly-Pro-His-Tyr-Thr-Pro-Lys-Ile-Val-Gly-Gly-Ile

**Molecular Weight:** 1593.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.6%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Glx	1.00	1.13		Leu	1.00	0.98		Thr	1.00	1.00	
Gly	3.00	3.00		Lys	1.00	1.00		Tyr	1.00	0.96	
His	1.00	0.97		Pro	2.00	2.06		Val	1.00	0.77	*1
Ile	3.00	2.65	*1								

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/20/08  
Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

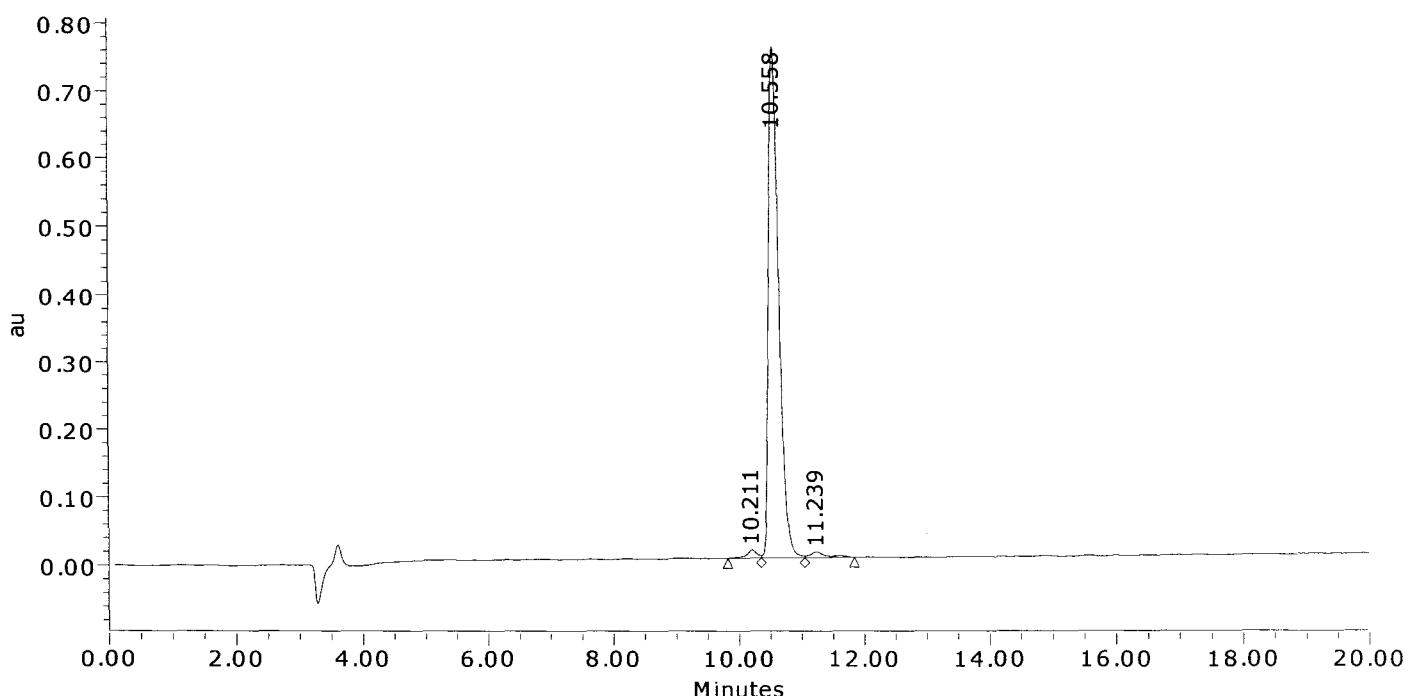
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344777/SW05064T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 12:31:33 CST  
Sample ID: 344777 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344777\_A Final\_PDA  
Date Acquired: 5/14/2008 19:48:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.5	10.211	137709	11578
2	96.6	10.558	8604007	754462
3	1.9	11.239	166511	8528
<b>Sum</b>	<b>100.00</b>		<b>8908227</b>	<b>774568.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344777**

**Lot # : SW05064T**

**Chemist : Yan Li**

Date Acquired :

5/14/2008 19:48:26 CST

Expected MS :

MW: 1593.9

Acq. Method Set :

Import

Processing Method :

344777\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

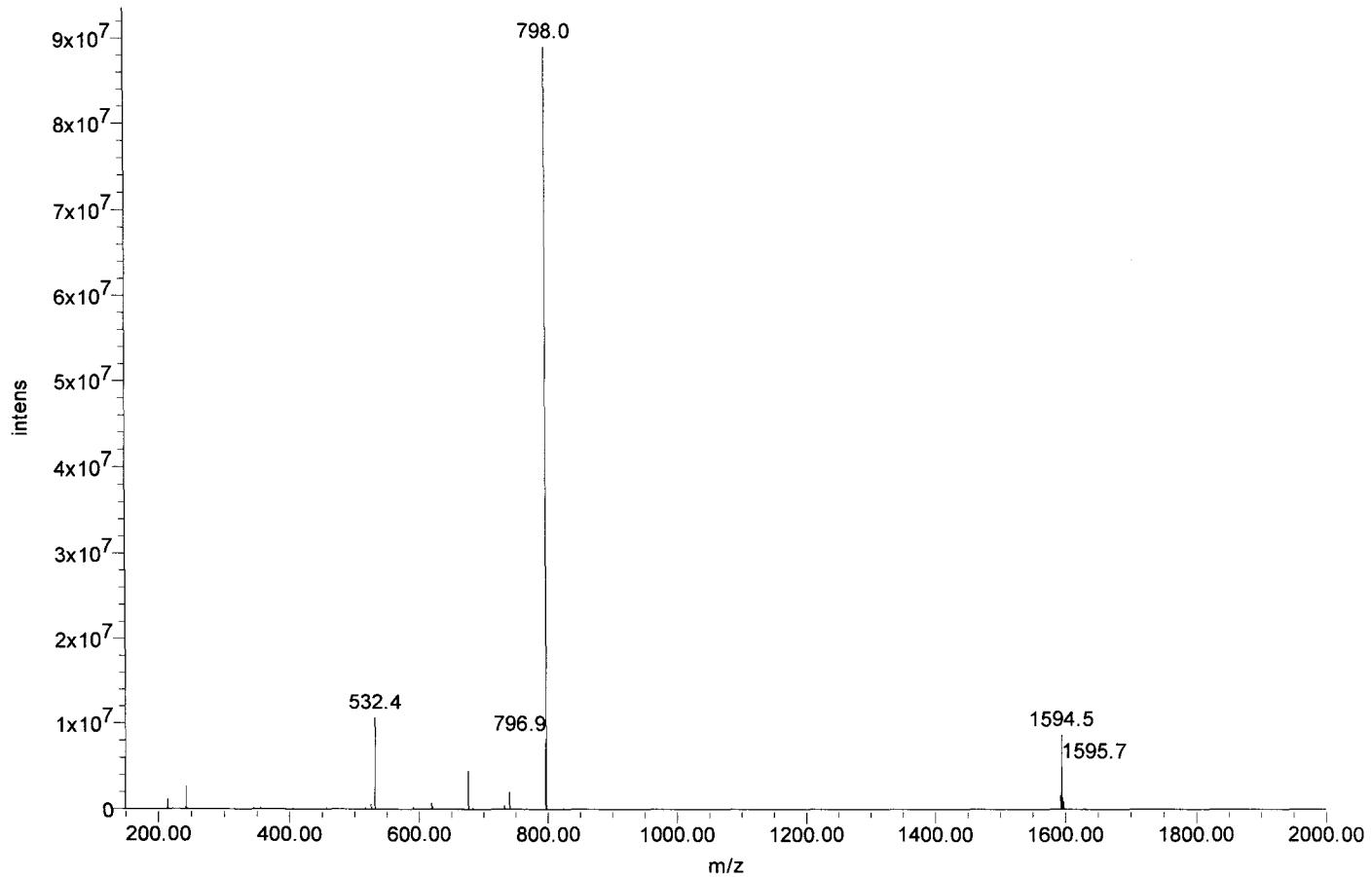
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #38  
PHYTPKIVGGIGGFI  
Cat#5747 Lot#/080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344778                   **Lot #:** SW05086T

**Sequence:** Pro-His-Tyr-Thr-Pro-Lys-Ile-Val-Gly-Gly-Ile-Gly-Phe-Ile

**Molecular Weight:** 1555.8 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Gly	4.00	4.00		Lys	1.00	0.95		Thr	1.00	0.94	
His	1.00	0.95		Phe	1.00	0.98		Tyr	1.00	0.91	
Ile	3.00	2.53	*1	Pro	2.00	2.09		Val	1.00	0.75	*1

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/20/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

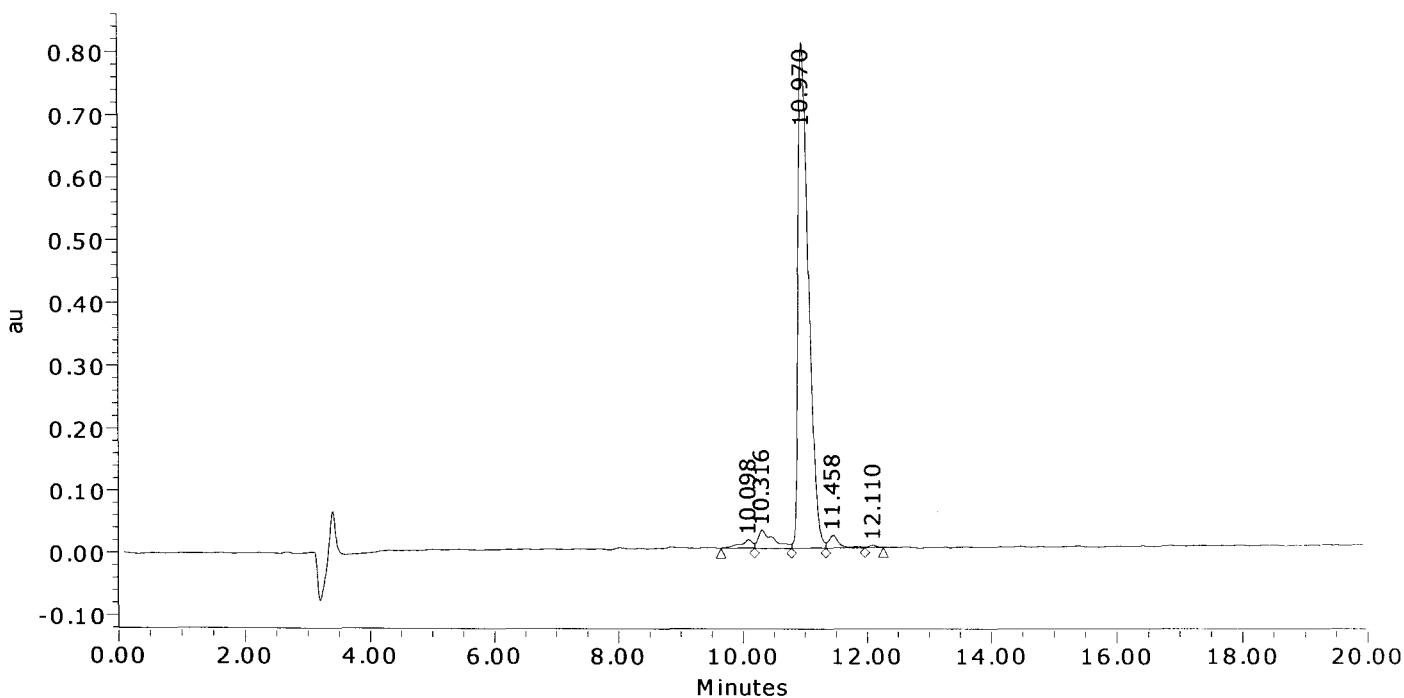
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344778/SW05086T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 9:43:23 CST  
Sample ID: 344778 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344778\_A Final\_PDA  
Date Acquired: 5/15/2008 14:51:38 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.8	10.098	184543	13371
2	4.7	10.316	488093	28680
3	91.0	10.970	9442281	806455
4	2.2	11.458	227343	20187
5	0.3	12.110	30075	3410
Sum	100.00		10372336	872103.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344778**

**Lot # : SW05086T**

**Chemist : Yan Li**

Date Acquired :

5/15/2008 14:51:38 CST

Expected MS :

MW: 1555.8

Acq. Method Set :

Import

Processing Method :

344778\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

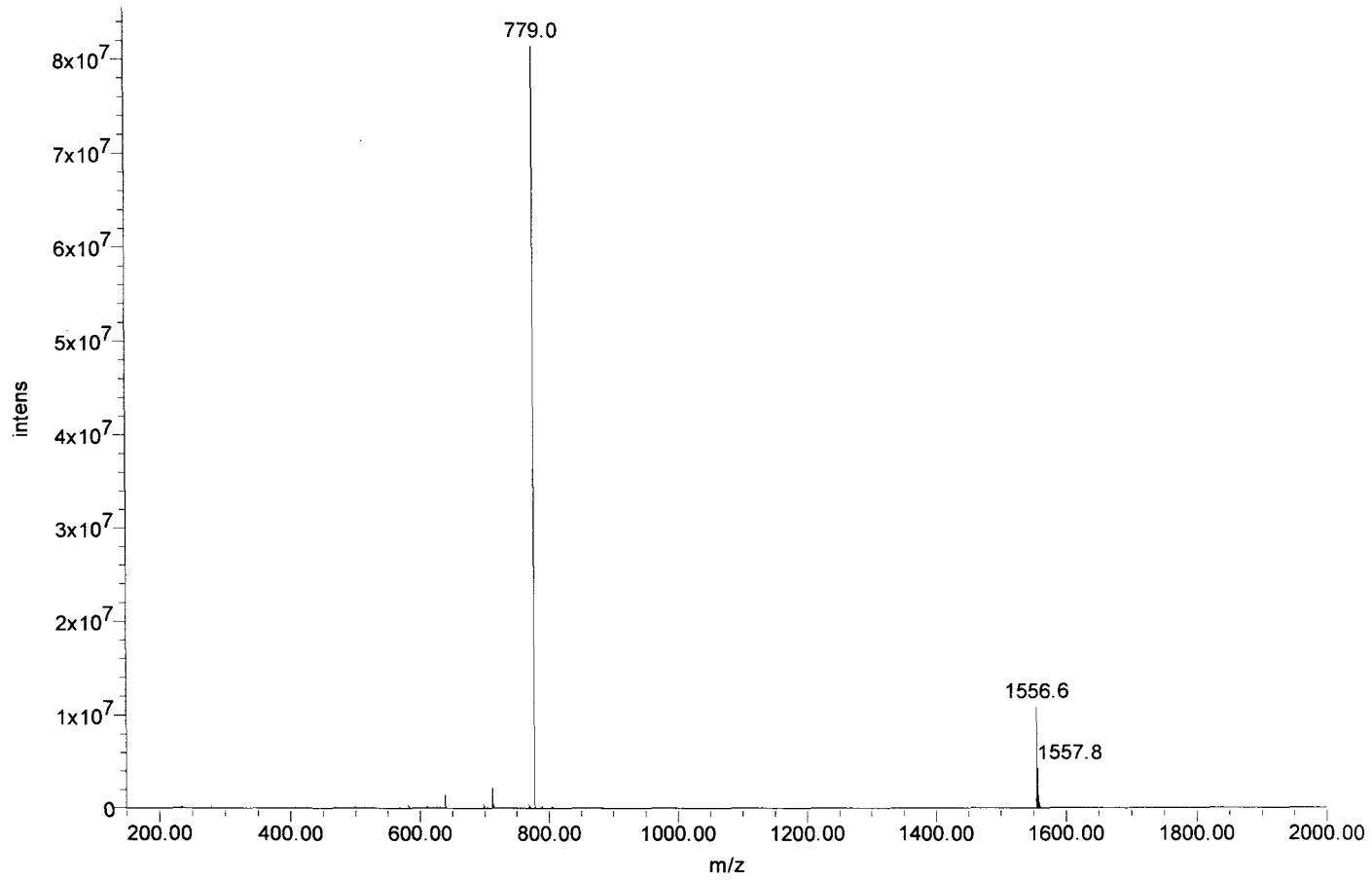
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #39  
PKIVGGIGGFINTKE  
Cat#5748 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344779                   **Lot #:** SW05091T

**Sequence:** Pro-Lys-Ile-Val-Gly-Gly-Ile-Gly-Gly-Phe-Ile-Asn-Thr-Lys-Glu

**Molecular Weight:** 1529.8 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 81.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	0.97		Ile	3.00	2.65	*1	Pro	1.00	0.99	
Glx	1.00	1.14		Lys	2.00	1.90		Thr	1.00	1.00	
Gly	4.00	3.84		Phe	1.00	0.97		Val	1.00	0.79	*1

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan2 Li*

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

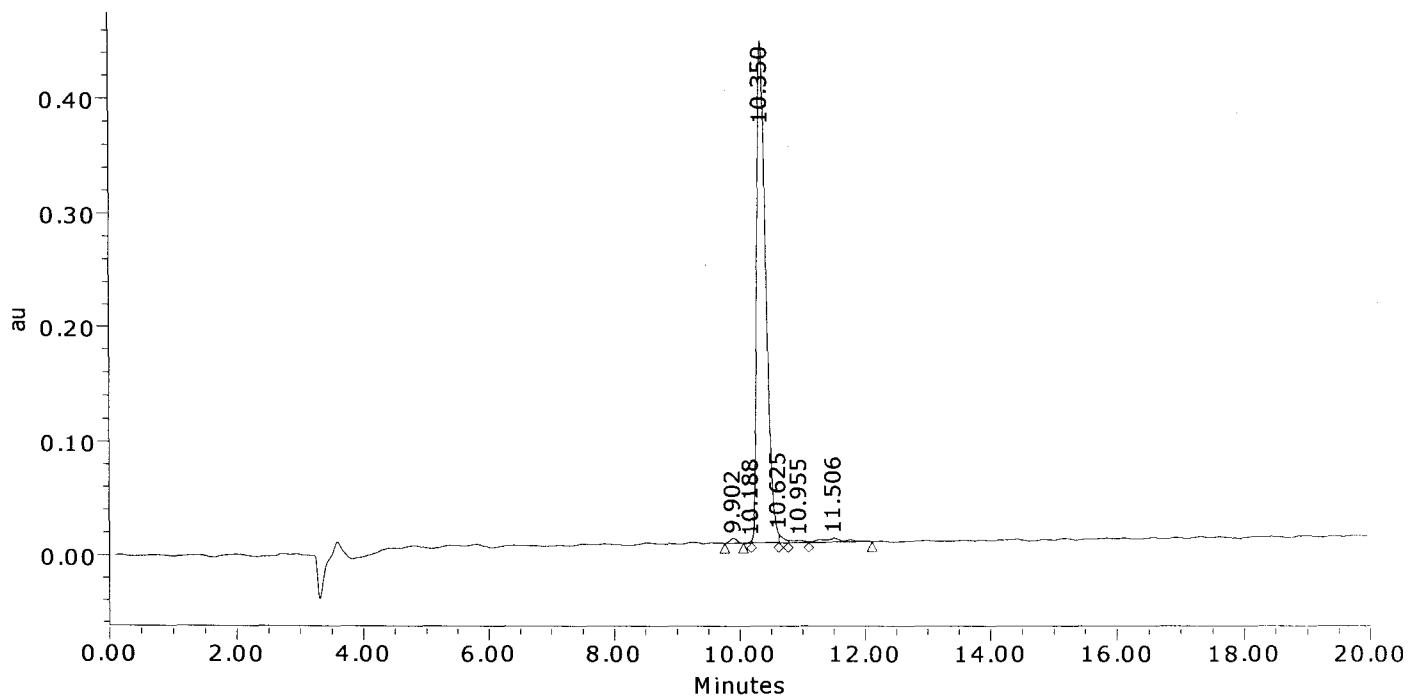
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344779/SW05091T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 12:28:17 CST  
Sample ID: 344779 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344779\_A Final\_PDA  
Date Acquired: 5/16/2008 20:57:29 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

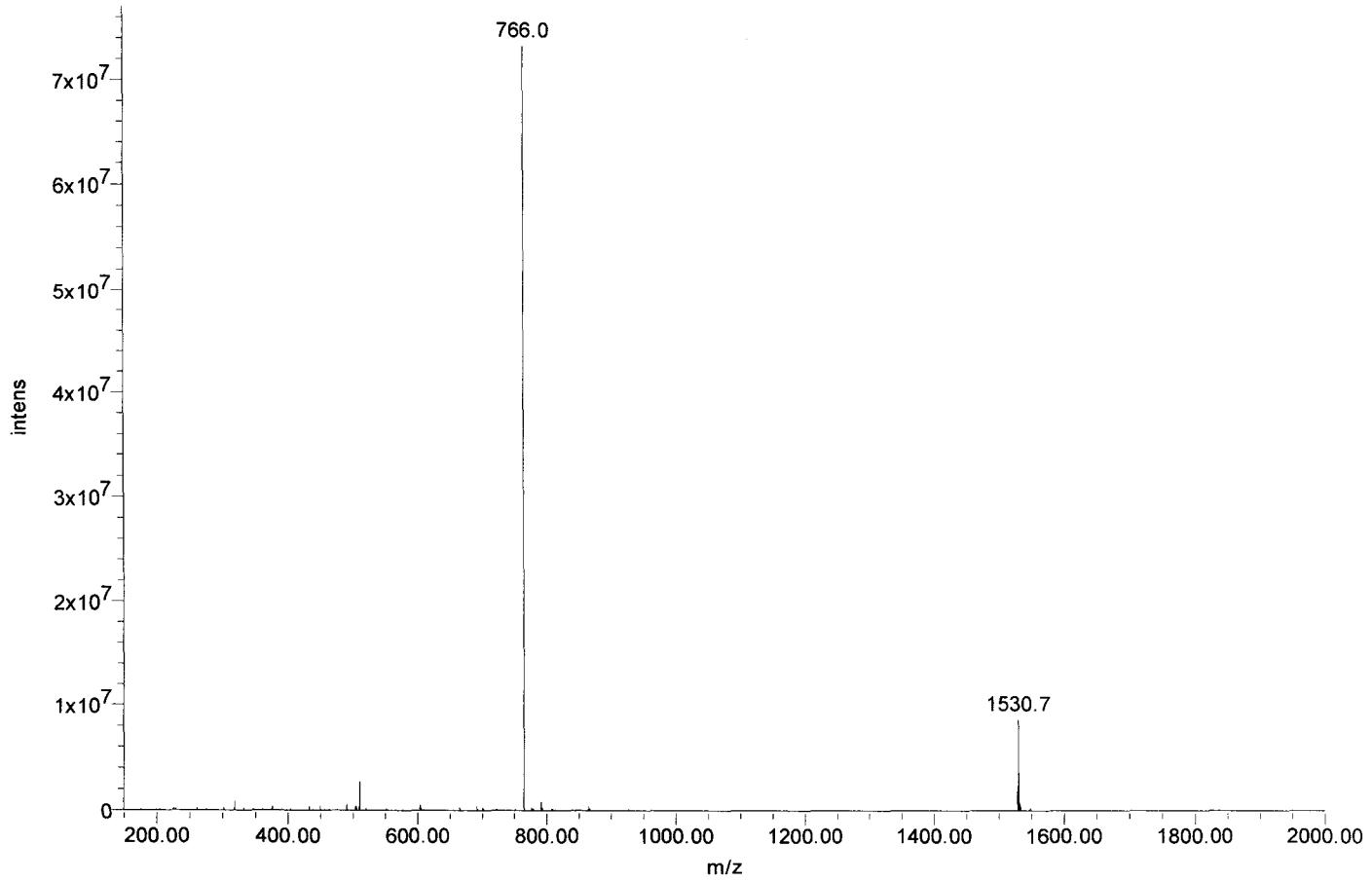


	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.7	9.902	33542	4293
2	0.1	10.188	4452	1806
3	95.9	10.350	4440458	439742
4	0.8	10.625	35187	7505
5	0.6	10.955	29347	1903
6	1.8	11.506	85233	3106
Sum	100.00		4628218	458354.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344779      **Lot # :** SW05091T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 20:57:29 CST  
Expected MS : MW: 1529.8  
Acq. Method Set : Import  
Processing Method : 344779\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #40  
GGIGGFINTKEYKNV  
Cat#5749 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344780                   **Lot #:** SW05045T  
**Sequence:** Gly-Gly-Ile-Gly-Gly-Phe-Ile-Asn-Thr-Lys-Glu-Tyr-Lys-Asn-Val  
**Molecular Weight:** 1596.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 99.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.0%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	1.97		Ile	2.00	1.97		Thr	1.00	1.02	
Glx	1.00	0.95		Lys	2.00	2.00		Tyr	1.00	1.05	
Gly	4.00	4.00		Phe	1.00	0.99		Val	1.00	1.03	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yany Li'.

Date: 05/15/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

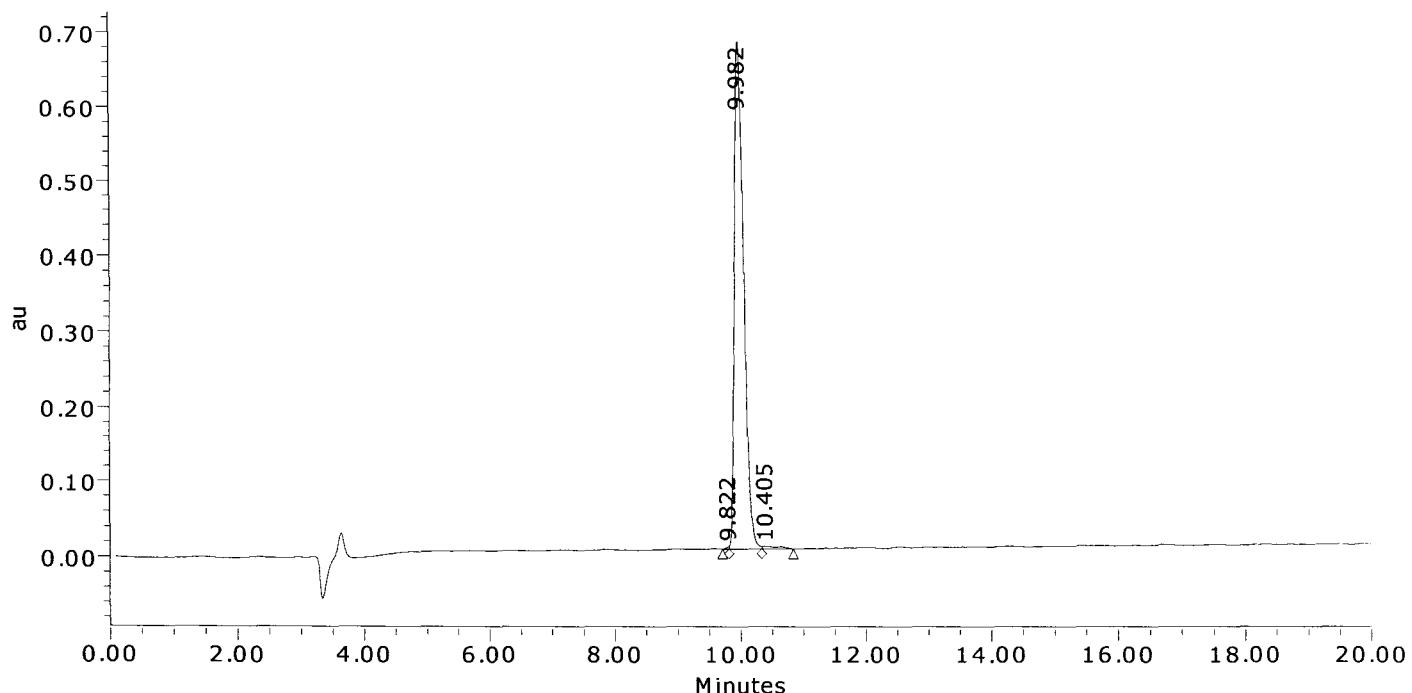
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344780/SW05045T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:31:10 CST  
Sample ID: 344780 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344780\_A Final\_PDA  
Date Acquired: 5/13/2008 19:43:43 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.1	9.822	8781	3743
2	99.1	9.982	6930567	677729
3	0.8	10.405	56294	3077
<b>Sum</b>	<b>100.00</b>		<b>6995642</b>	<b>684548.1</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344780

Lot # : SW05045T

Chemist : Yan Li

Date Acquired :

5/14/2008 13:27:25 CST

Expected MS :

MW: 1596.8

Acq. Method Set :

Import

Processing Method :

344780\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

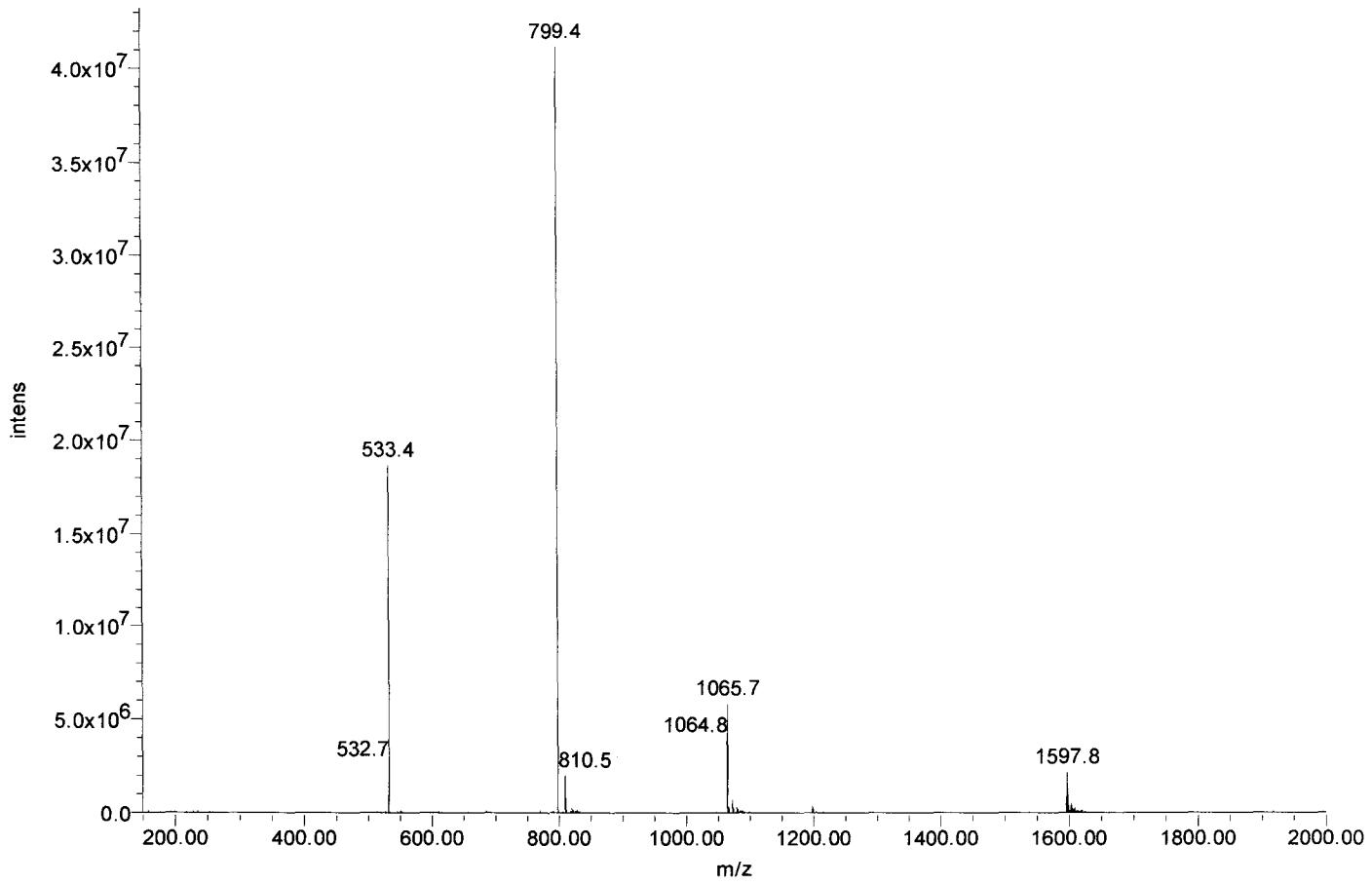
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #41  
GFINTKEYKNVEIEV  
Cat#5750 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344781                   **Lot #:** SW05076T

**Sequence:** Gly-Phe-Ile-Asn-Thr-Lys-Glu-Tyr-Lys-Asn-Val-Glu-Ile-Glu-Val

**Molecular Weight:** 1783.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 77.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	1.93		Ile	2.00	1.91		Thr	1.00	0.95	
Glx	3.00	2.94		Lys	2.00	2.04		Tyr	1.00	1.01	
Gly	1.00	1.00		Phe	1.00	0.97		Val	2.00	2.09	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/20/08

Quality Control Department

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777 E. Evelyn Avenue  
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Tel: 760-597-8820 Fax: 760-597-8816

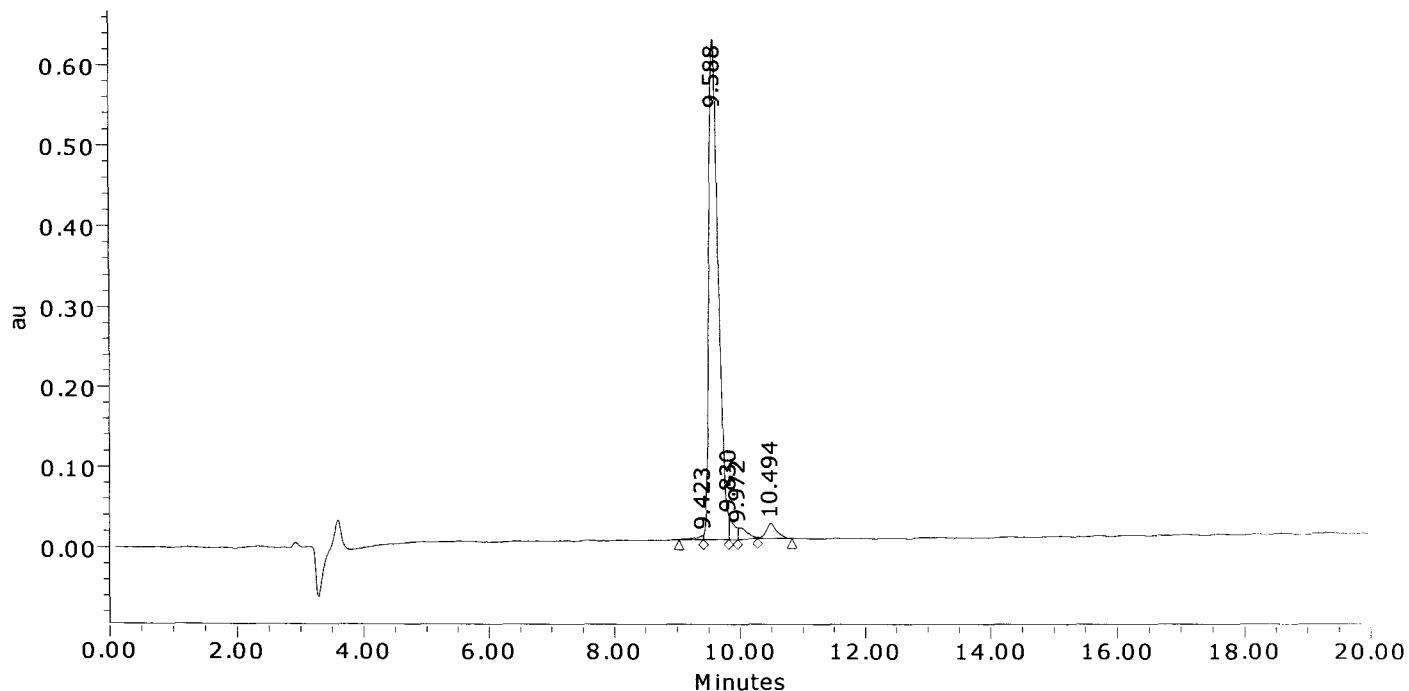
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344781/SW05076T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 11:13:33 CST  
Sample ID: 344781 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344781\_A Final\_PDA  
Date Acquired: 5/15/2008 21:04:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	9.423	40366	5404
2	91.8	9.588	6455798	621951
3	2.3	9.830	160079	27334
4	2.1	9.972	148515	13914
5	3.2	10.494	224809	18736
<b>Sum</b>	<b>100.00</b>		<b>7029567</b>	<b>687339.0</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344781**

**Lot # : SW05076T**

**Chemist : Yan Li**

Date Acquired :

5/15/2008 21:04:35 CST

Expected MS :

MW: 1783.0

Acq. Method Set :

Import

Processing Method :

344781\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

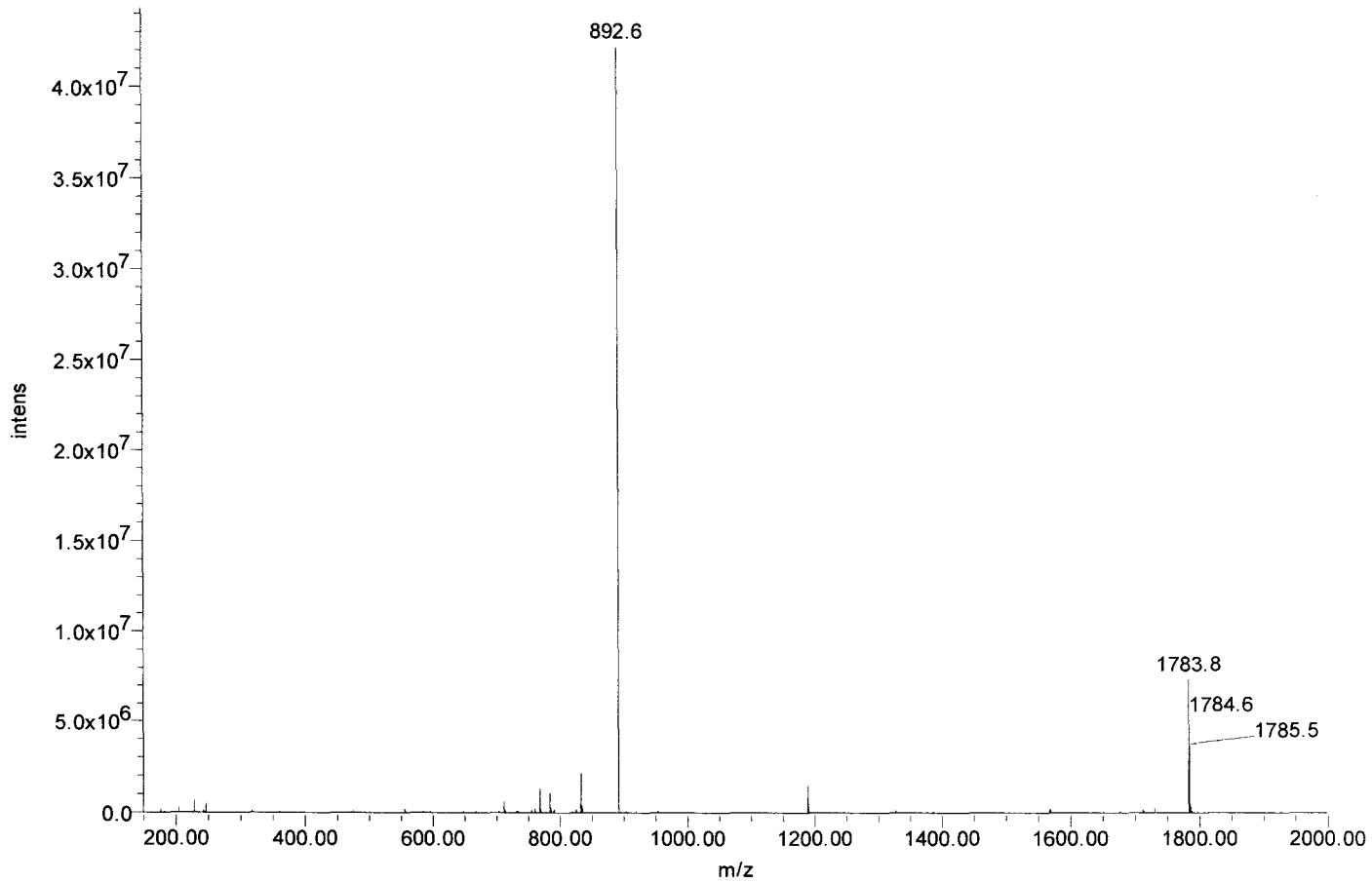
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #42  
TKEYKNVEIEVLGKR  
Cat#5751 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344782                   **Lot #:** SW05070T  
**Sequence:** Thr-Lys-Glu-Tyr-Lys-Asn-Val-Glu-Ile-Glu-Val-Leu-Gly-Lys-Arg  
**Molecular Weight:** 1806.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Ile	1.00	0.96		Thr	1.00	1.02	
Asx	1.00	1.01		Leu	1.00	1.00		Tyr	1.00	0.97	
Glx	3.00	2.85		Lys	3.00	3.02		Val	2.00	1.93	
Gly	1.00	1.04									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/16/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

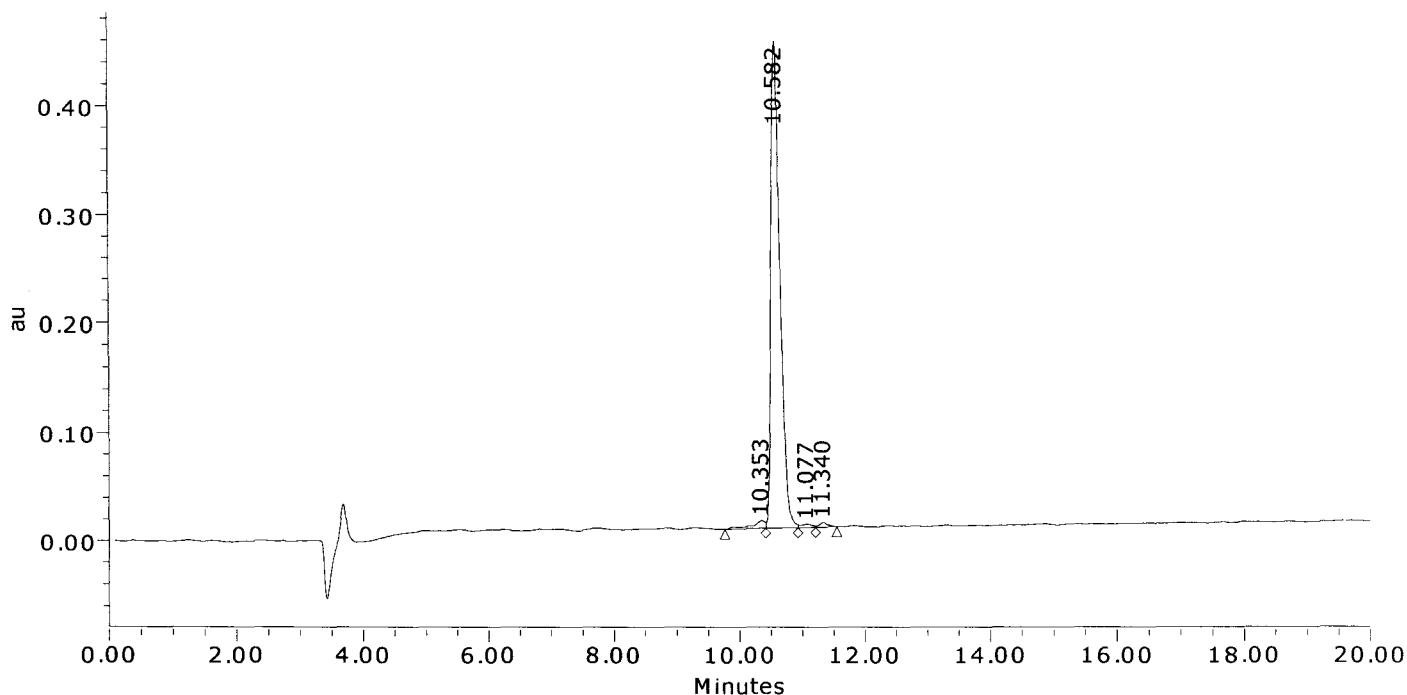
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344782/SW05070T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/15/2008 9:38:19 CST
Sample ID:	344782	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344782_A Final_PDA
Date Acquired:	5/15/2008 0:07:59 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17%-37% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	2.4	10.353	110363	7151
2	95.8	10.582	4471388	446938
3	0.9	11.077	41513	3173
4	0.9	11.340	42756	4575
<b>Sum</b>	<b>100.00</b>		<b>4666020</b>	<b>461836.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344782

Lot # : SW05070T

Chemist : Yan Li

Date Acquired :

5/15/2008 0:07:59 CST

Expected MS :

MW: 1806.1

Acq. Method Set :

Import

Processing Method :

344782\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

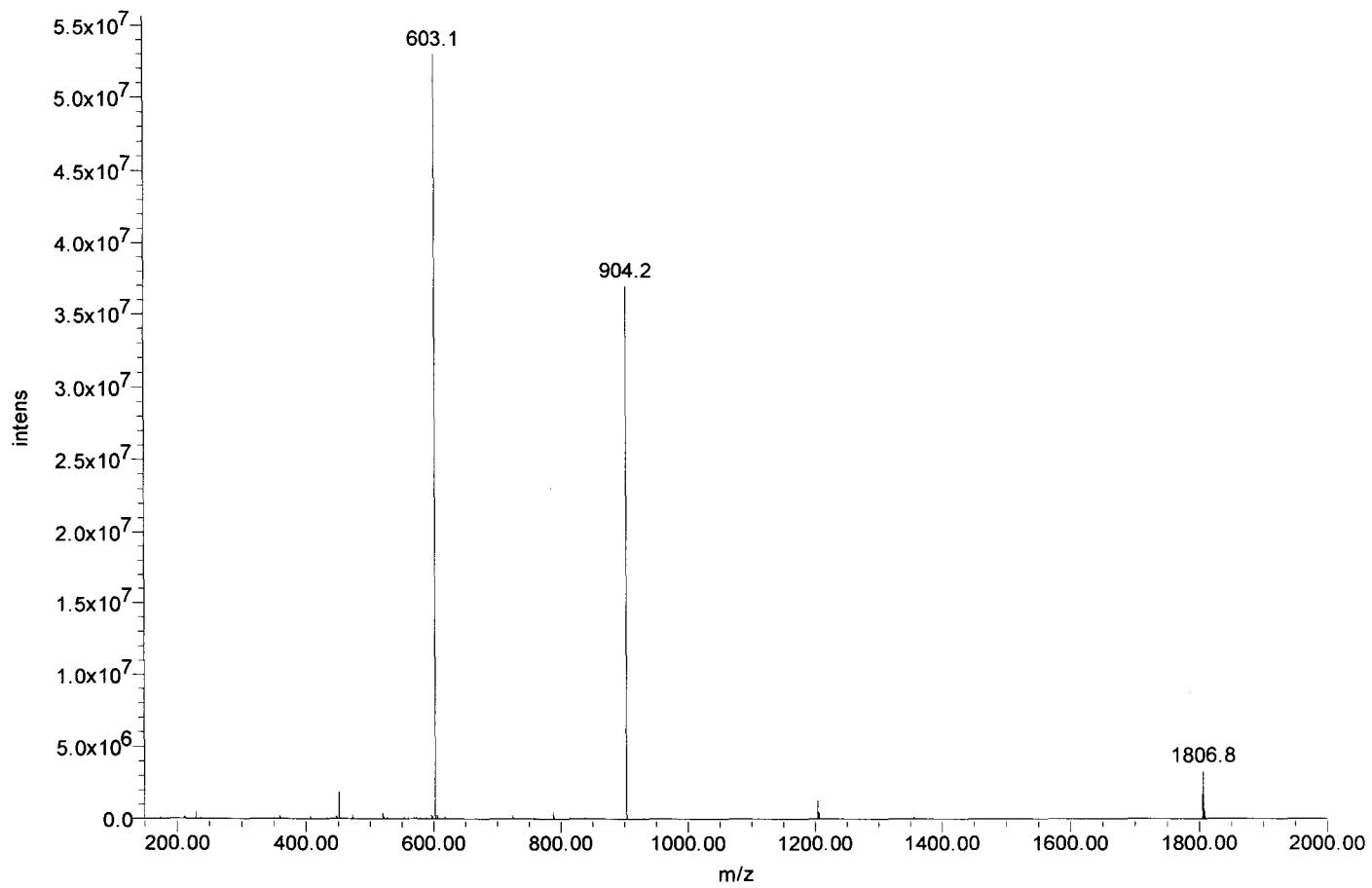
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #43  
KNVEIEVLGKRIKGT  
Cat#5752 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344783                   **Lot #:** SW05088T

**Sequence:** Lys-Asn-Val-Glu-Ile-Glu-Val-Leu-Gly-Lys-Arg-Ile-Lys-Gly-Thr

**Molecular Weight:** 1684.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.98	Gly	2.00	2.00		Lys	3.00	2.93
Asx	1.00	1.00	Ile	2.00	1.94		Thr	1.00	1.04
Glx	2.00	2.26	Leu	1.00	1.13		Val	2.00	2.03

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yanz Li*  
Quality Control Department

Date: 05/21/08

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

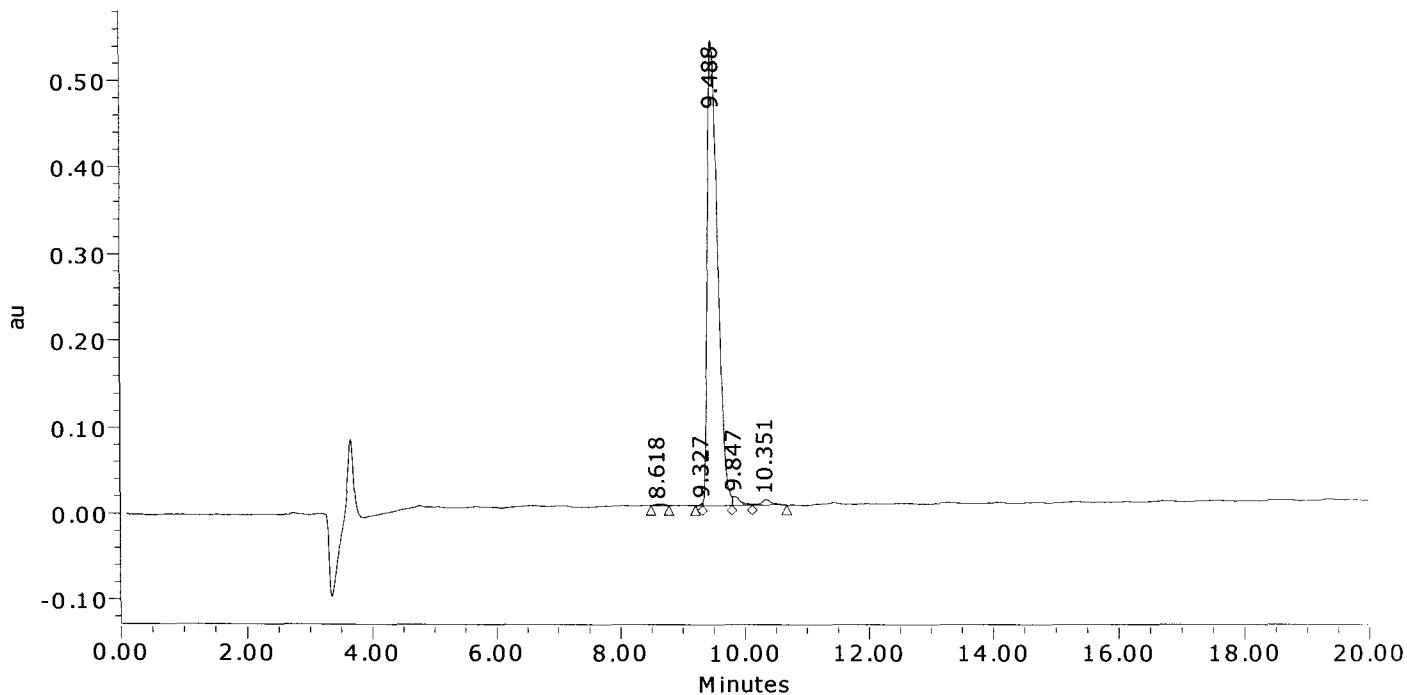
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344783/SW05088T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 11:25:38 CST  
Sample ID: 344783 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344783\_A Final\_PDA  
Date Acquired: 5/15/2008 22:21:52 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.3	8.618	16328	1653
2	0.1	9.327	6776	3294
3	97.0	9.488	6160307	537858
4	1.5	9.847	92300	9991
5	1.2	10.351	76447	6649
Sum	100.00		6352159	559444.5

# American Peptide Company, Inc.

## MS Analysis Report

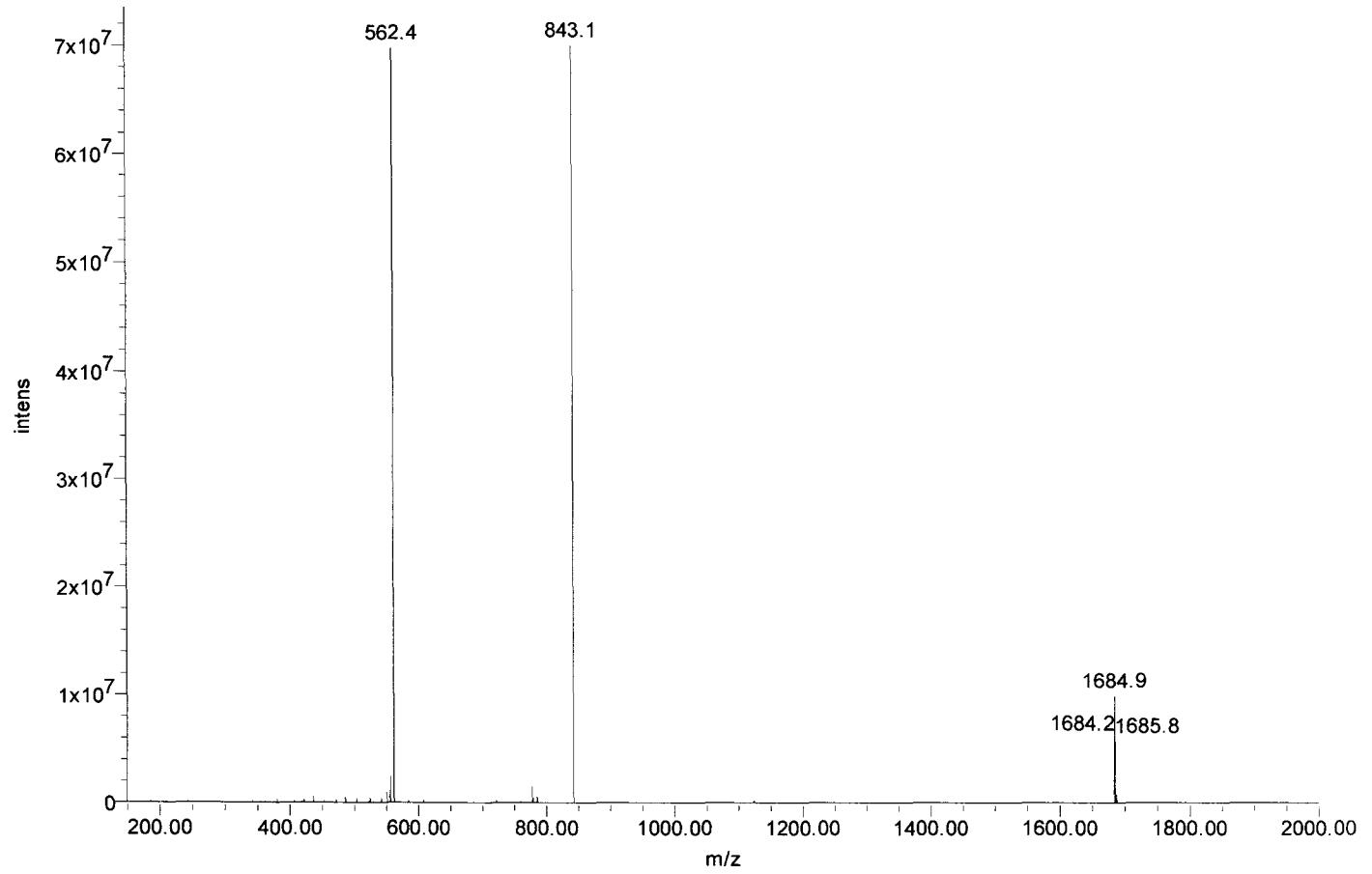
Sample ID:

344783

Lot # : SW05088T

Chemist : Yan Li

Date Acquired : 5/15/2008 22:21:52 CST  
Expected MS : MW: 1684.0  
Acq. Method Set : Import  
Processing Method : 344783\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #44  
IEVLGKRIKGTTIMTG  
Cat#5753 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344784                   **Lot #:** SW05024T

**Sequence:** Ile-Glu-Val-Leu-Gly-Lys-Arg-Ile-Lys-Gly-Thr-Ile-Met-Thr-Gly

**Molecular Weight:** 1616.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 99.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 77.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Ile	3.00	2.93		Met	1.00	1.03	
Glx	1.00	0.98		Leu	1.00	1.09		Thr	2.00	1.99	
Gly	3.00	3.05		Lys	2.00	2.01		Val	1.00	0.99	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Yonzi Li'.

Date: 05/15/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
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Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

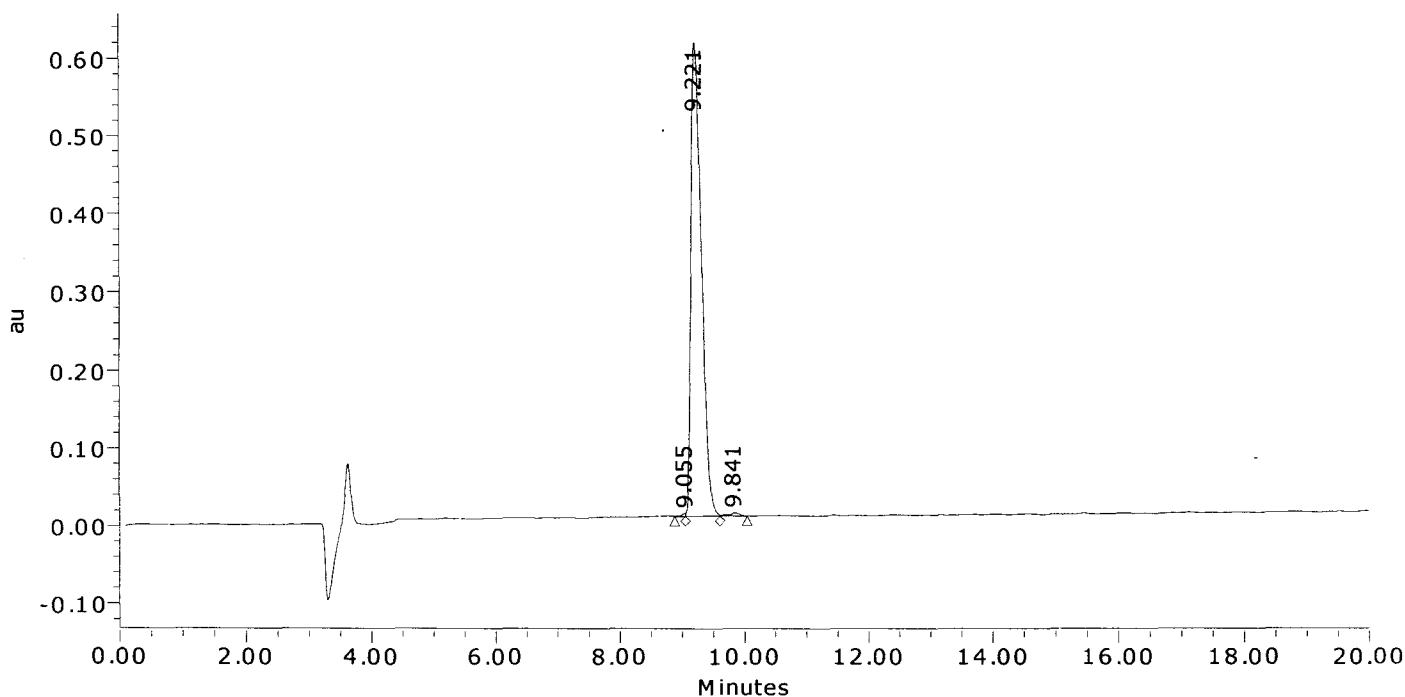
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344784/SW05024T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/13/2008 9:40:49 CST
Sample ID:	344784	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344784_A Final_PDA
Date Acquired:	5/12/2008 19:15:21 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li



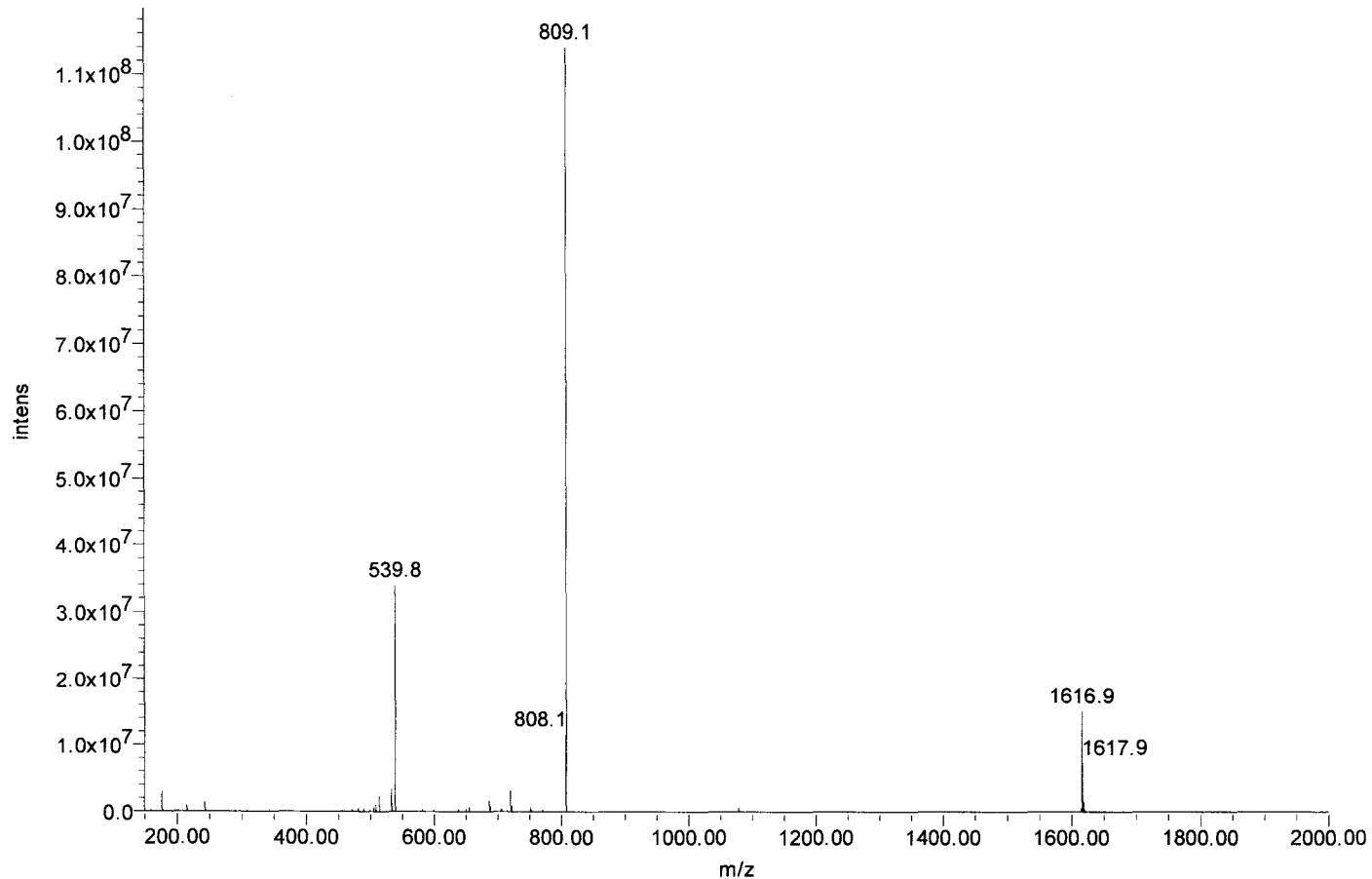
	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.2	9.055	12475	3926
2	99.2	9.221	7114065	607649
3	0.6	9.841	43381	4061
Sum	100.00		7169921	615637.0

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344784      **Lot # :** SW05024T      **Chemist :** Yan Li

Date Acquired : 5/12/2008 19:15:21 CST  
Expected MS : MW: 1616.0  
Acq. Method Set : Import  
Processing Method : 344784\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #45  
GKRIKGTIMTGDTPI  
Cat#5754 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344785                   **Lot #:** SW05079T  
**Sequence:** Gly-Lys-Arg-Ile-Lys-Gly-Thr-Ile-Met-Thr-Gly-Asp-Thr-Pro-Ile  
**Molecular Weight:** 1587.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 77.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/15/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.97		Ile	3.00	2.83		Pro	1.00	1.07	
Asx	1.00	0.97		Lys	2.00	1.96		Thr	3.00	2.93	
Gly	3.00	3.00		Met	1.00	1.00					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yonzi Li Date: 05/20/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

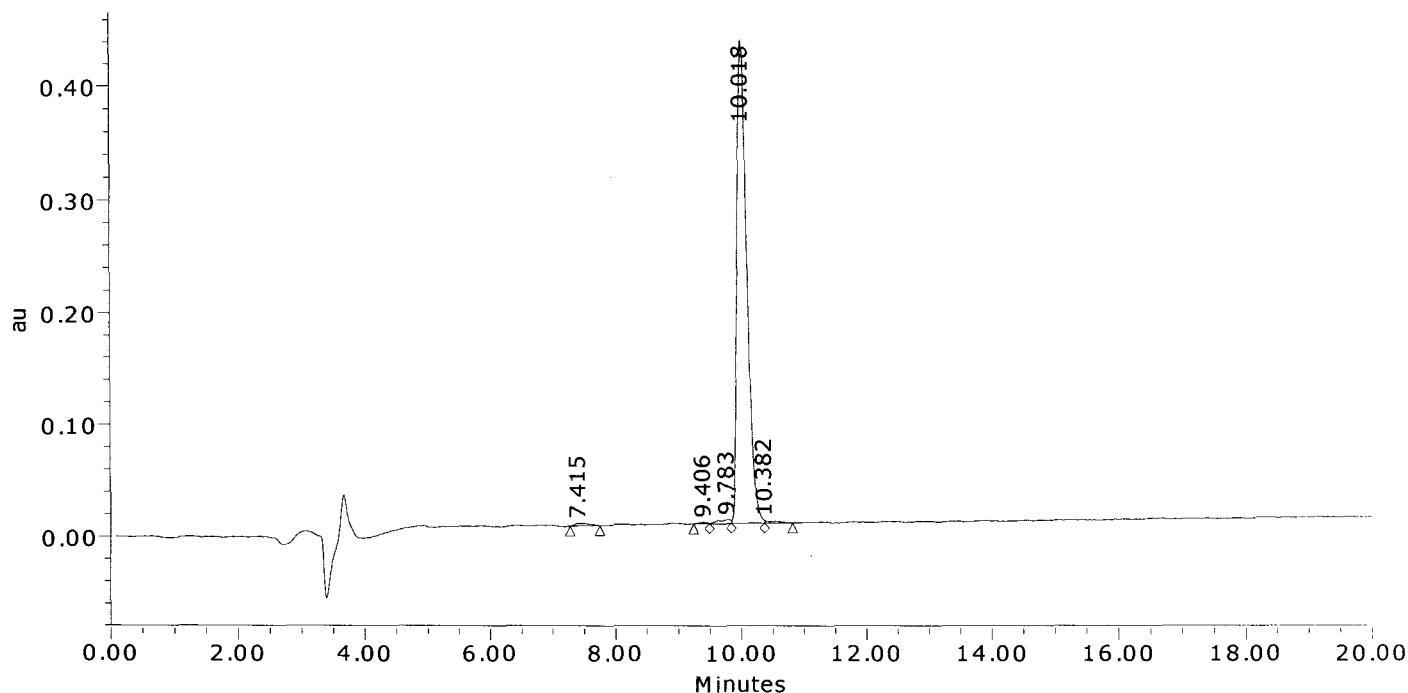
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344785/SW05079T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 12:31:31 CST  
Sample ID: 344785 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344785\_A Final\_PDA  
Date Acquired: 5/15/2008 22:59:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



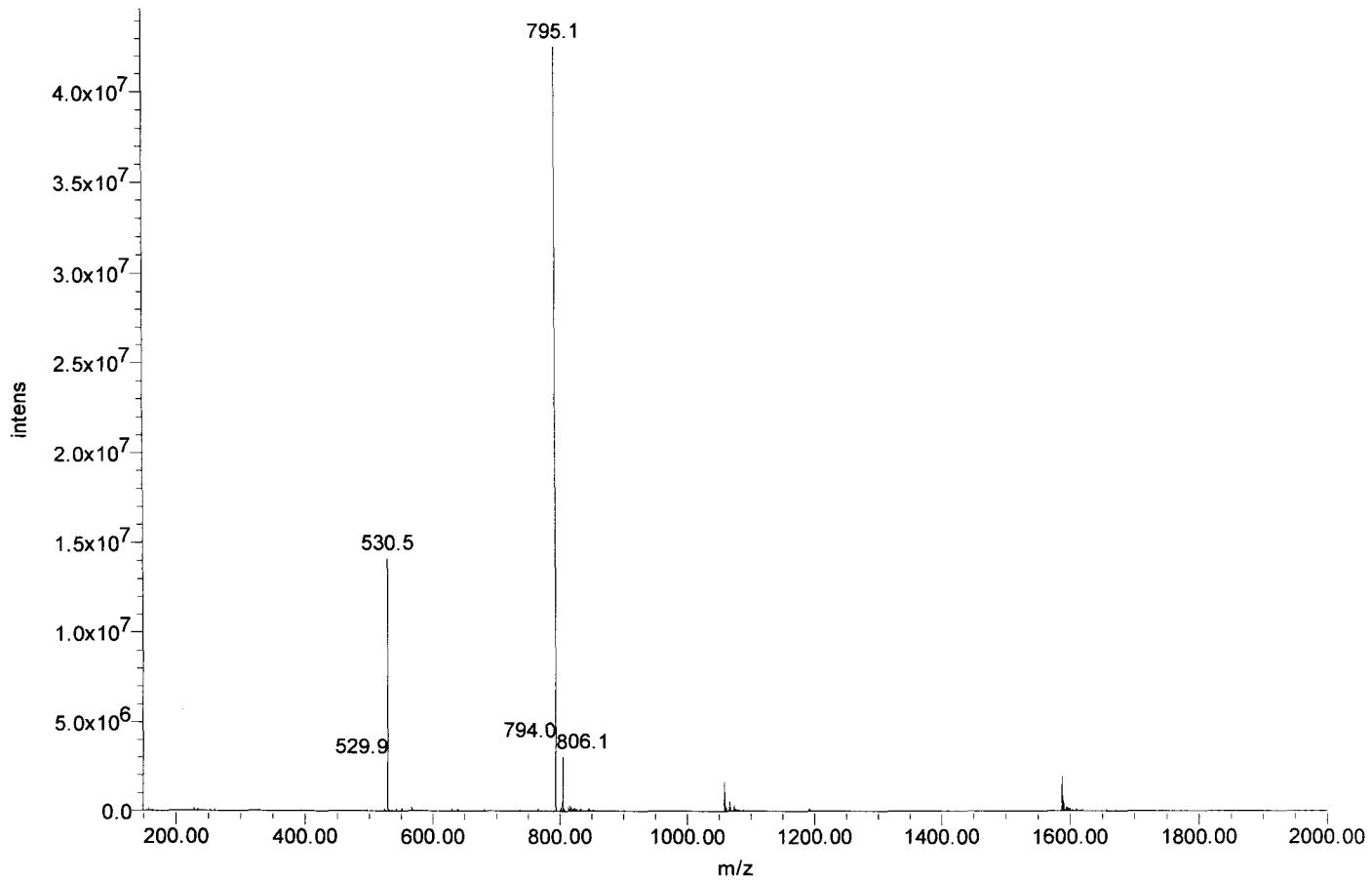
	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.8	7.415	36647	2204
2	0.3	9.406	12164	1255
3	1.0	9.783	50217	3585
4	97.4	10.018	4724961	429910
5	0.6	10.382	27691	2172
Sum	100.00		4851680	439126.2

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344785      **Lot # :** SW05079T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 16:36:14 CST  
Expected MS : MW: 1587.9  
Acq. Method Set : Import  
Processing Method : 344785\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #46**  
KGTIMTGDTPINIFG  
Cat#5755 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344786                           **Lot #:** SW05048T

**Sequence:** Lys-Gly-Thr-Ile-Met-Thr-Gly-Asp-Thr-Pro-Ile-Asn-Ile-Phe-Gly

**Molecular Weight:** 1564.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.2%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 79.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	1.97	Lys	1.00	0.97	Pro	1.00	1.11
Gly	3.00	3.00	Met	1.00	0.98	Thr	3.00	2.95
Ile	3.00	2.96	Phe	1.00	0.99			

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

## Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Tel: 760-597-8820 Fax: 760-597-8816

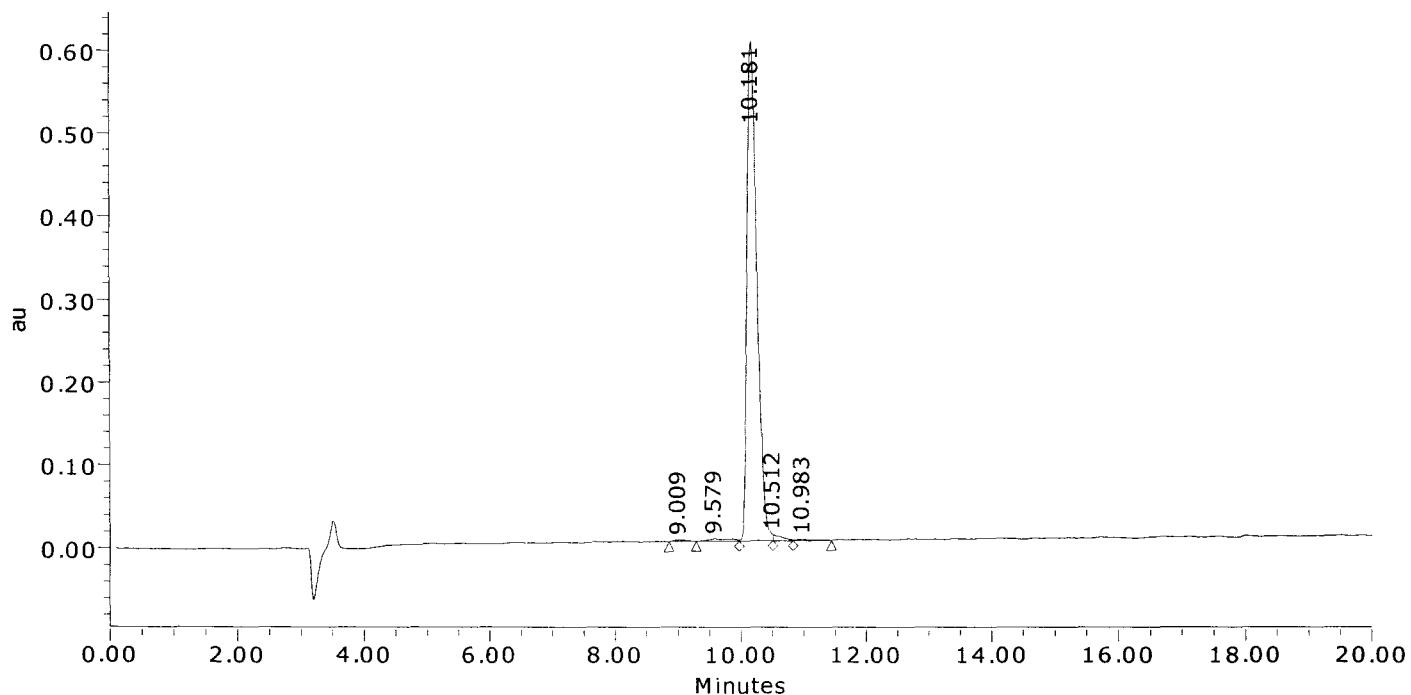
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344786/SW05048T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 9:26:41 CST  
Sample ID: 344786 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344786\_A Final\_PDA  
Date Acquired: 5/13/2008 17:44:51 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

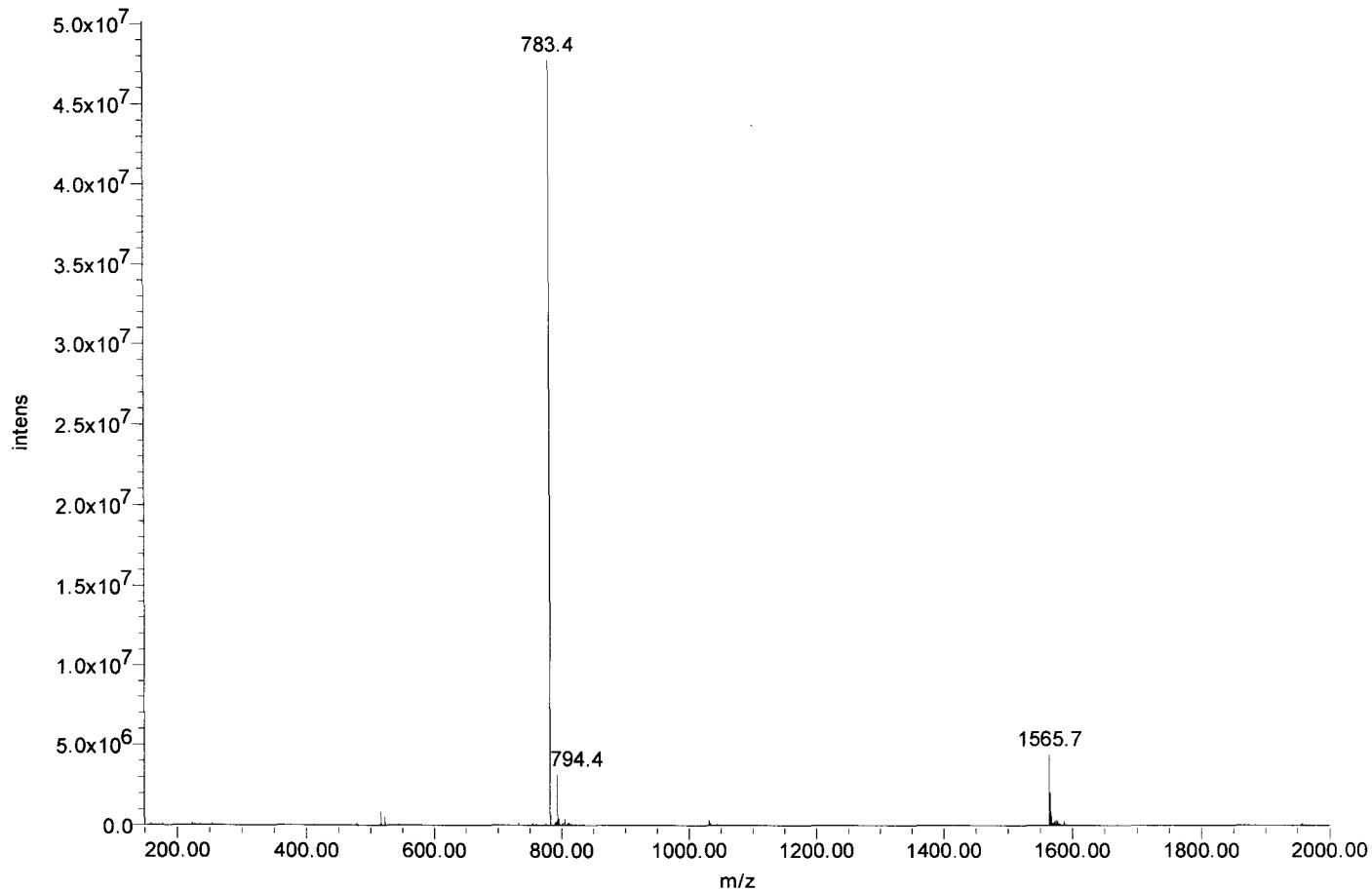


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.3	9.009	19133	1563
2	1.1	9.579	71223	2799
3	97.2	10.181	6586191	603040
4	1.0	10.512	68277	7147
5	0.4	10.983	29082	1757
<b>Sum</b>	<b>100.00</b>		<b>6773906</b>	<b>616306.3</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344786      **Lot # :** SW05048T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 10:10:16 CST  
Expected MS : MW: 1564.8  
Acq. Method Set : Import  
Processing Method : 344786\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #47  
MTGDTIPINIFGRNLL  
Cat#5756 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344787                   **Lot #:** SW05052T

**Sequence:** Met-Thr-Gly-Asp-Thr-Pro-Ile-Asn-Ile-Phe-Gly-Arg-Asn-Leu-Leu

**Molecular Weight:** 1662.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 85.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Ile	2.00	1.91		Phe	1.00	0.97	
Asx	3.00	2.90		Leu	2.00	2.22		Pro	1.00	1.11	
Gly	2.00	2.00		Met	1.00	0.99		Thr	2.00	1.98	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'. Below the signature, the text 'Quality Control Department' is printed.

Date: 05/16/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

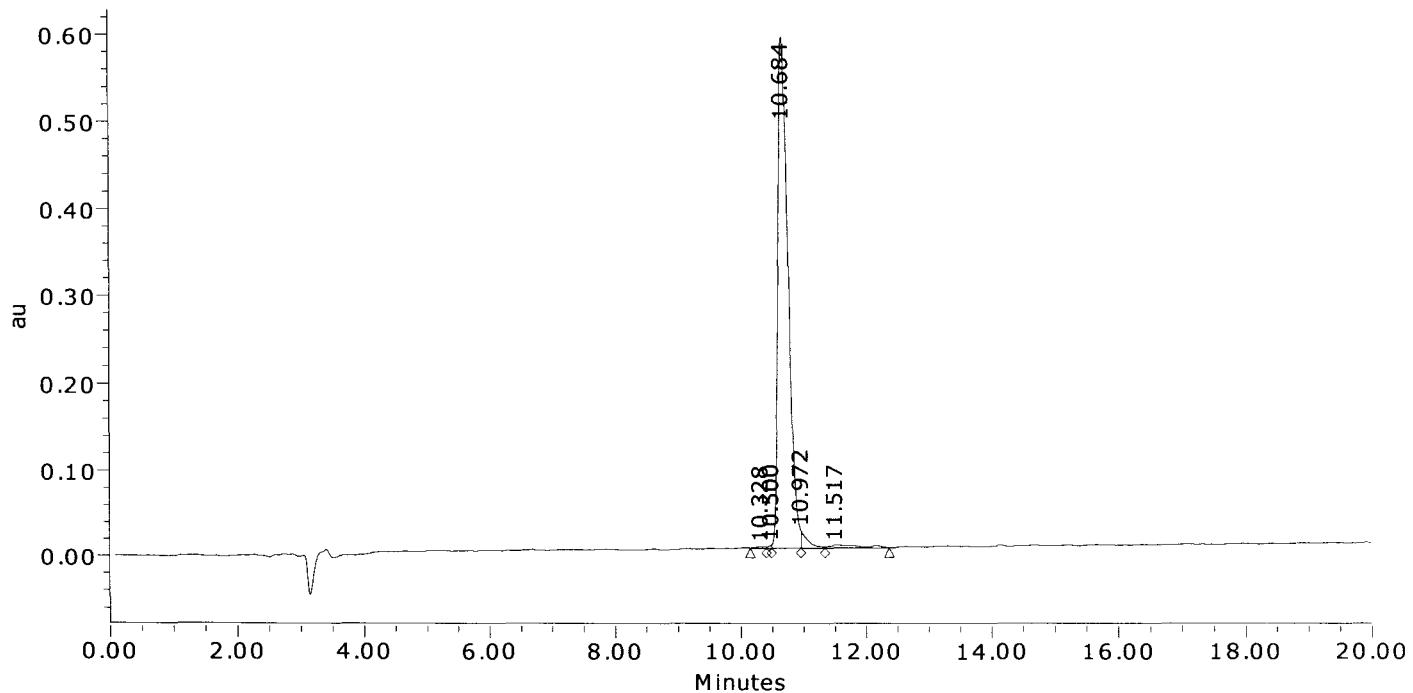
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344787/SW05052T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 12:45:12 CST  
Sample ID: 344787 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344787\_A Final\_PDA  
Date Acquired: 5/14/2008 8:50:31 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 29% -49% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



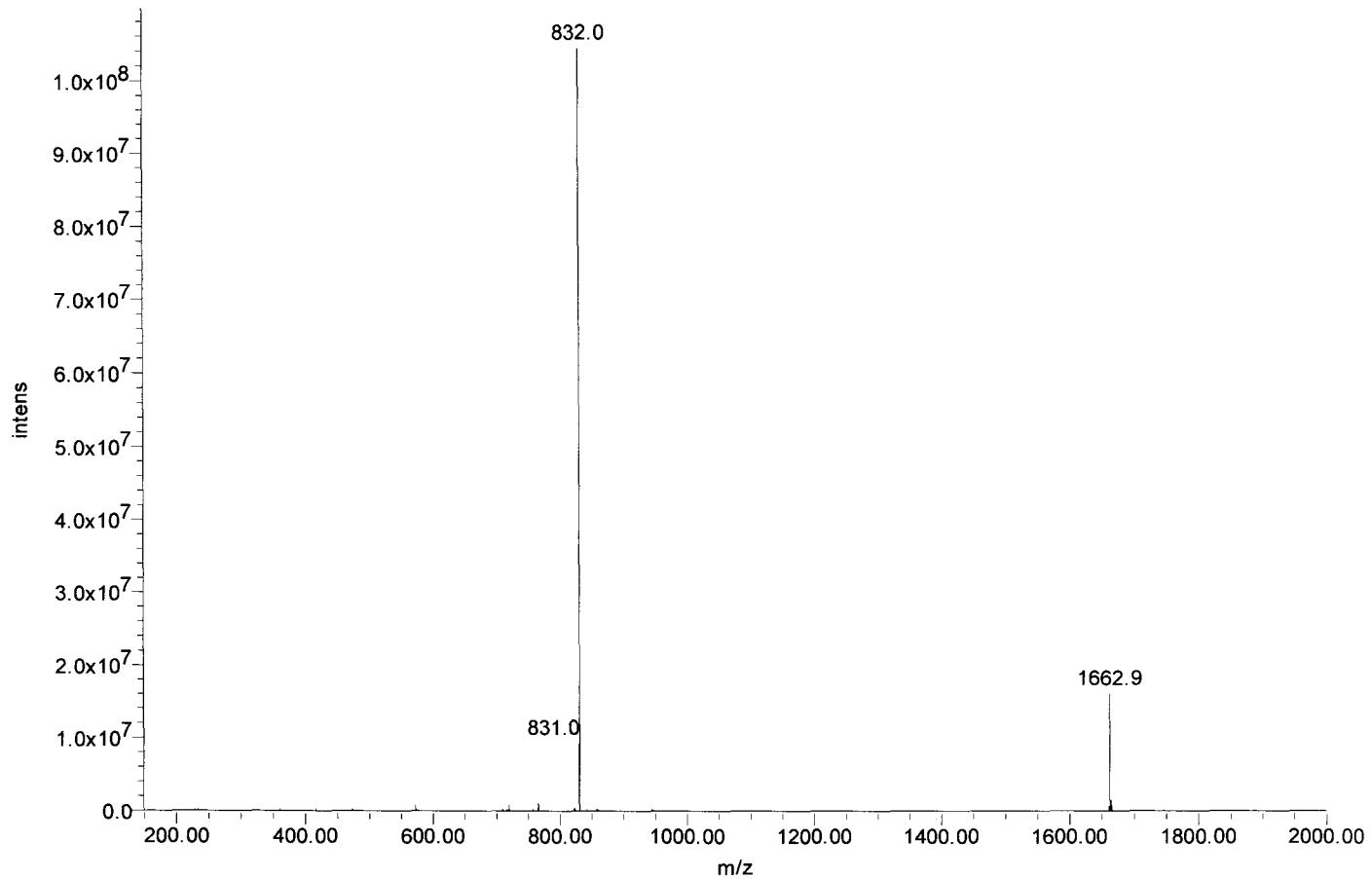
	Result (%)	Ret Time (min)	Peak Area	Peak Height (uV)
1	0.2	10.328	15155	1579
2	0.1	10.500	10097	3415
3	95.8	10.684	6659416	586794
4	2.2	10.972	151745	20385
5	1.7	11.517	118502	2937
Sum	100.00		6954914	615110.9

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344787      **Lot # :** SW05052T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 8:50:31 CST  
Expected MS : MW: 1662.0  
Acq. Method Set : Import  
Processing Method : 344787\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #48  
TPINIFGRNLLTALG  
Cat#5757 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344788                   **Lot #:** SW05004T

**Sequence:** Thr-Pro-Ile-Asn-Ile-Phe-Gly-Arg-Asn-Leu-Leu-Thr-Ala-Leu-Gly

**Molecular Weight:** 1599.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.5%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 84.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Gly	2.00	2.03		Phe	1.00	0.98	
Arg	1.00	1.02		Ile	2.00	1.97		Pro	1.00	1.07	
Asx	2.00	2.00		Leu	3.00	3.44		Thr	2.00	2.07	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 05/14/08  
Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

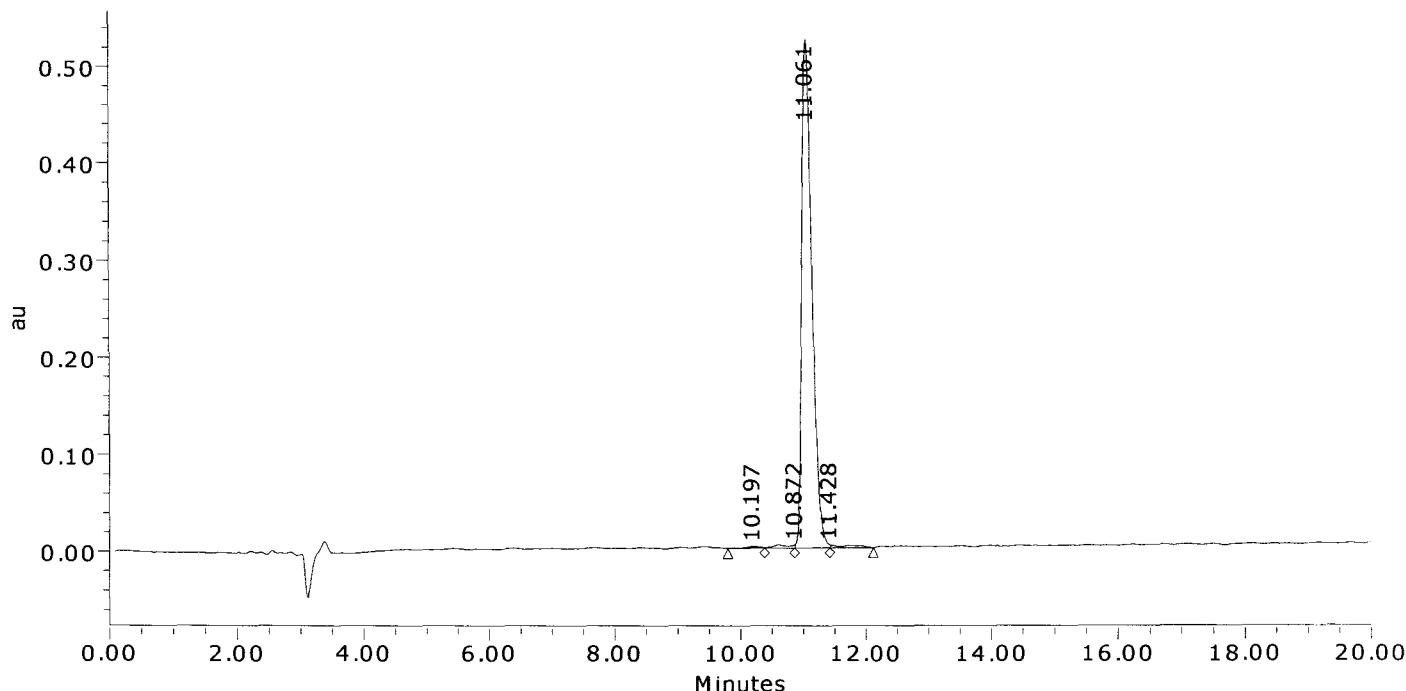
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344788/SW05004T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 10:57:39 CST  
Sample ID: 344788 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344788\_A Final\_PDA  
Date Acquired: 5/12/2008 9:10:33 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.6	10.197	34528	1709
2	0.9	10.872	55724	3315
3	97.5	11.061	5932734	524652
4	1.0	11.428	60370	3302
<b>Sum</b>	<b>100.00</b>		<b>6083356</b>	<b>532977.0</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344788

Lot # : SW05004T

Chemist : Yan Li

Date Acquired :

4/24/2008 1:48:59 PM

Expected MS :

MW: 1599.9

Acq. Method Set :

Import

Processing Method :

344788\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

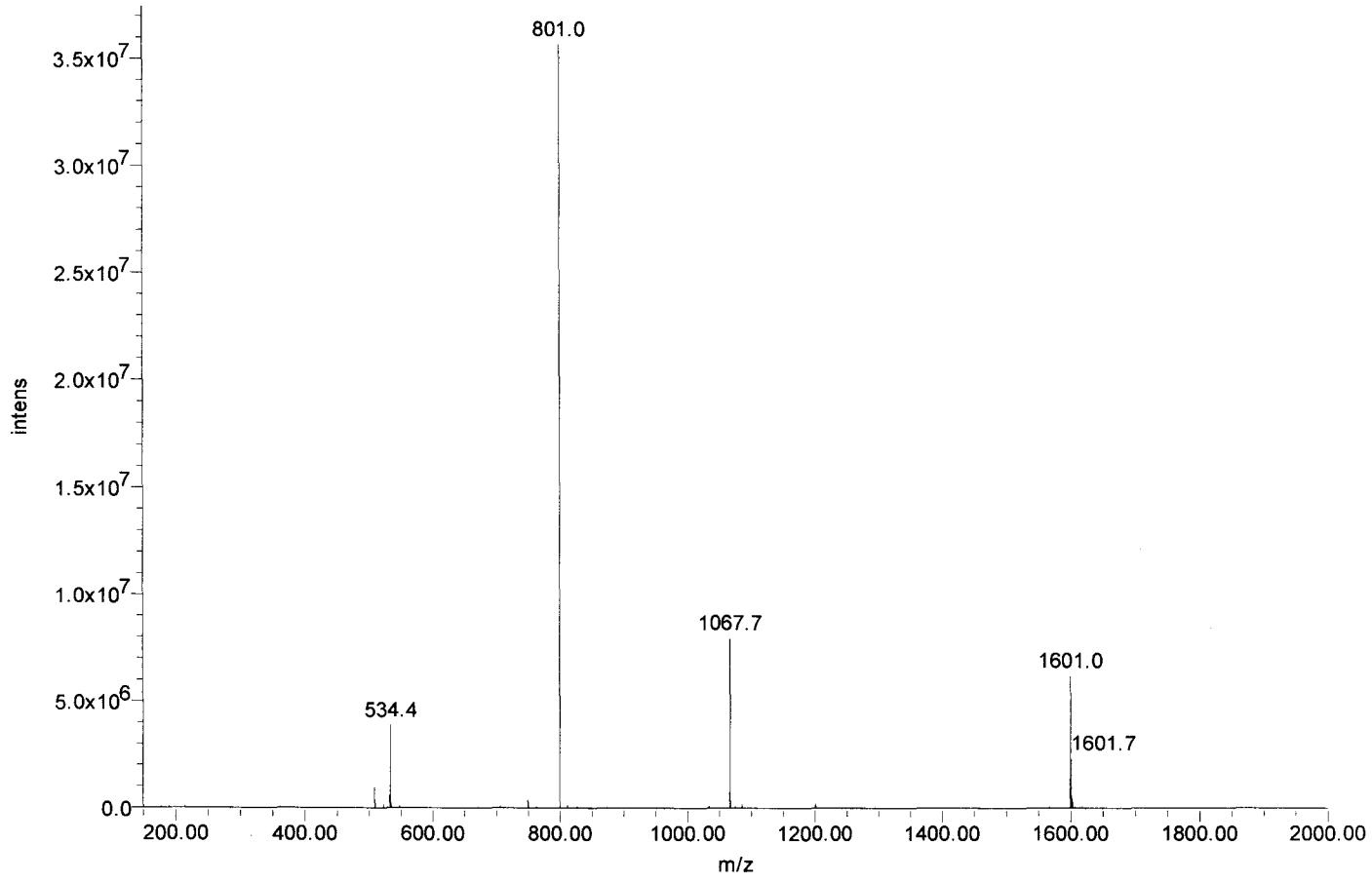
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #49  
IFGRNLLTALGMSLN  
Cat#5758 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344789                   **Lot #:** SW05116T

**Sequence:** Ile-Phe-Gly-Arg-Asn-Leu-Leu-Thr-Ala-Leu-Gly-Met-Ser-Leu-Asn

**Molecular Weight:** 1620.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 87.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 85.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/19/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.06		Ile	1.00	0.93		Phe	1.00	0.96	
Arg	1.00	1.00		Leu	4.00	4.52		Ser	1.00	0.85	
Asx	2.00	1.91		Met	1.00	1.05		Thr	1.00	0.99	
Gly	2.00	2.03									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

*Yan Li*

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

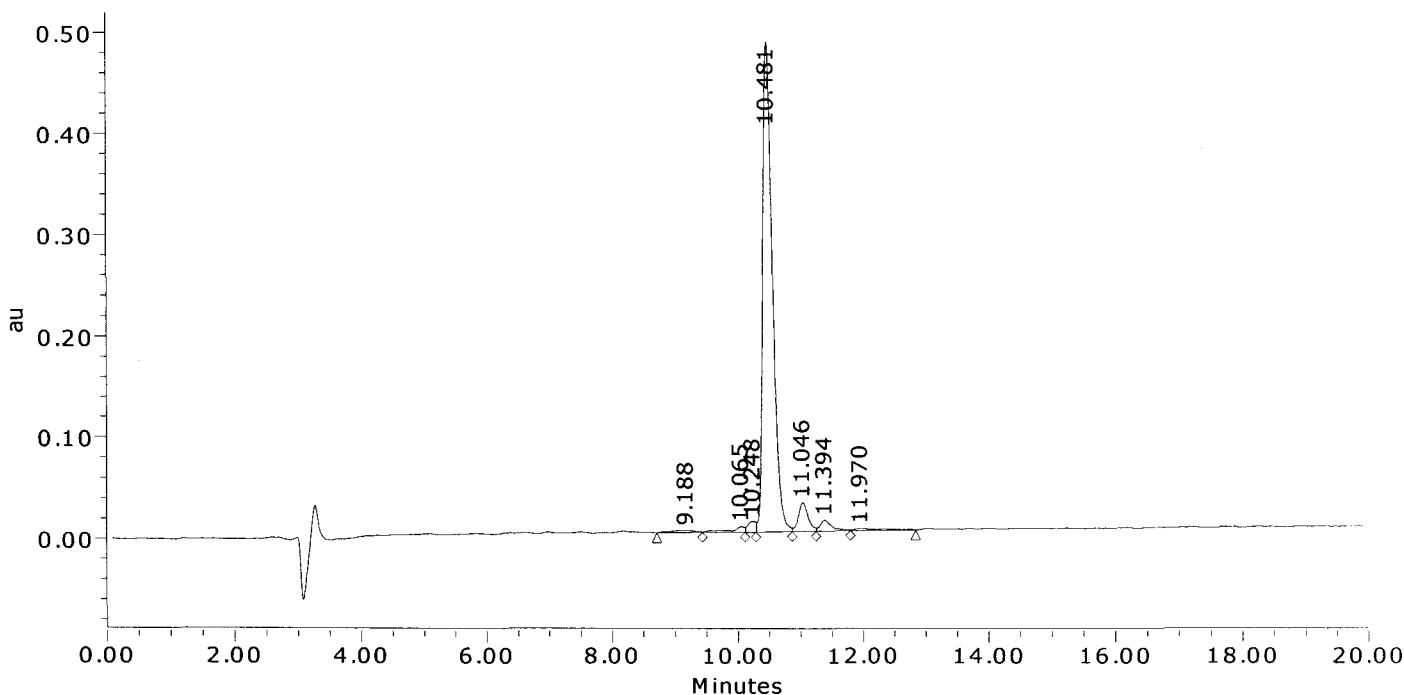
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344789/SW05116T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 15:16:41 CST  
Sample ID: 344789 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344789\_A Final\_PDA  
Date Acquired: 5/19/2008 14:40:52 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 32% -52% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.0	9.188	58703	2409
2	1.5	10.065	91633	5612
3	1.6	10.248	92990	10549
4	87.0	10.481	5196787	484144
5	5.3	11.046	314439	28866
6	2.5	11.394	148222	11326
7	1.1	11.970	67715	2446
Sum	100.00		5970489	545352.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344789**

**Lot # : SW05116T**

**Chemist : Yan Li**

Date Acquired :

5/19/2008 14:40:52 CST

Expected MS :

MW: 1620.0

Acq. Method Set :

Import

Processing Method :

344789\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

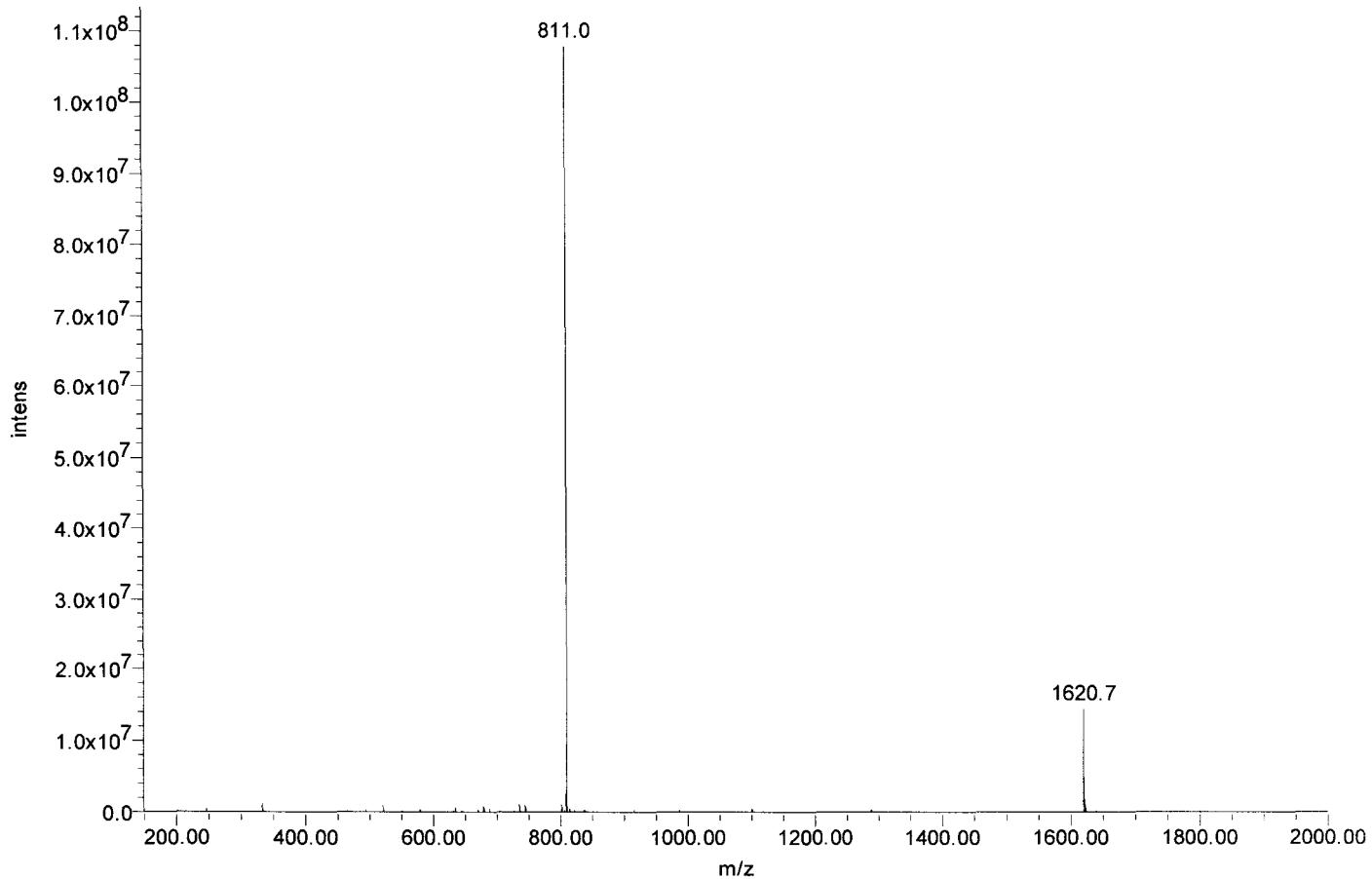
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #50  
NLI.TALGMSLNPIA  
Cat#5759 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344790                   **Lot #:** SW06006T

**Sequence:** Asn-Leu-Leu-Thr-Ala-Leu-Gly-Met-Ser-Leu-Asn-Phe-Pro-Ile-Ala

**Molecular Weight:** 1574.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 40% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 76.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 06/03/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Leu	4.00	3.92		Pro	1.00	1.02	
Asx	2.00	1.91		Met	1.00	0.96		Ser	1.00	0.92	
Gly	1.00	0.97		Phe	1.00	0.98		Thr	1.00	0.99	
Ile	1.00	0.92									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 06/05/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

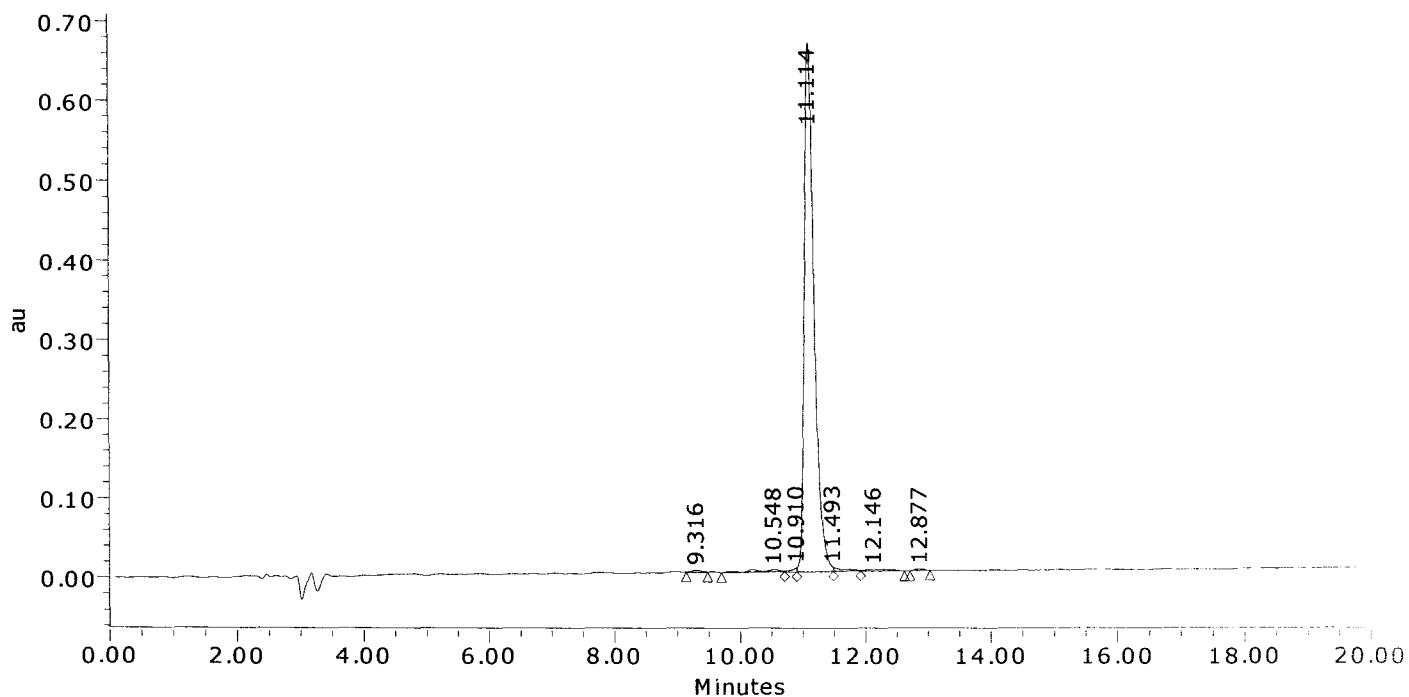
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344790/SW06006T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/3/2008 11:04:46 CST  
Sample ID: 344790 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344790\_A Final\_PDA  
Date Acquired: 6/3/2008 9:28:12 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 37% -57% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

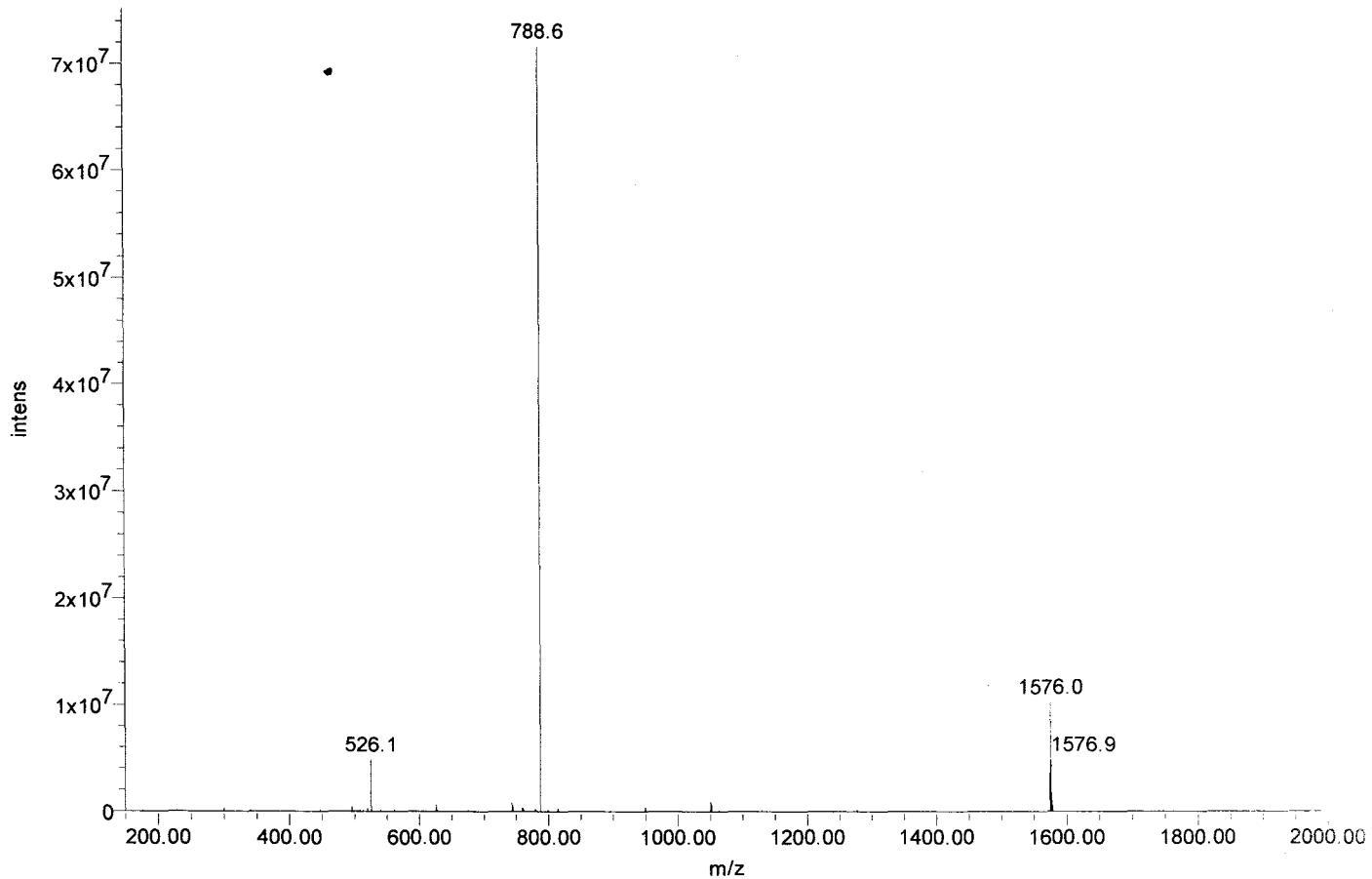


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.3	9.316	22544	2320
2	1.1	10.548	80399	2875
3	0.3	10.910	24514	4862
4	96.6	11.114	7243161	665808
5	0.7	11.493	51336	4529
6	0.8	12.146	58122	2175
7	0.2	12.877	16952	1771
Sum	100.00		7497027	684340.9

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344790      **Lot # :** SW06006T      **Chemist :** Yan Li

Date Acquired : 6/3/2008 9:28:12 CST  
Expected MS : MW: 1574.9  
Acq. Method Set : Import  
Processing Method : 344790\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #51  
ALGMSI.NFPIAKVEP  
Cat#5760 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344791                   **Lot #:** SW05080T  
**Sequence:** Ala-Leu-Gly-Met-Ser-Leu-Asn-Phe-Pro-Ile-Ala-Lys-Val-Glu-Pro  
**Molecular Weight:** 1586.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 77.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.98		Ile	1.00	0.94		Phe	1.00	1.01	
Asx	1.00	1.00		Leu	2.00	2.01		Pro	2.00	2.11	
Glx	1.00	0.98		Lys	1.00	0.98		Ser	1.00	0.80	
Gly	1.00	0.98		Met	1.00	0.99		Val	1.00	0.96	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/20/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

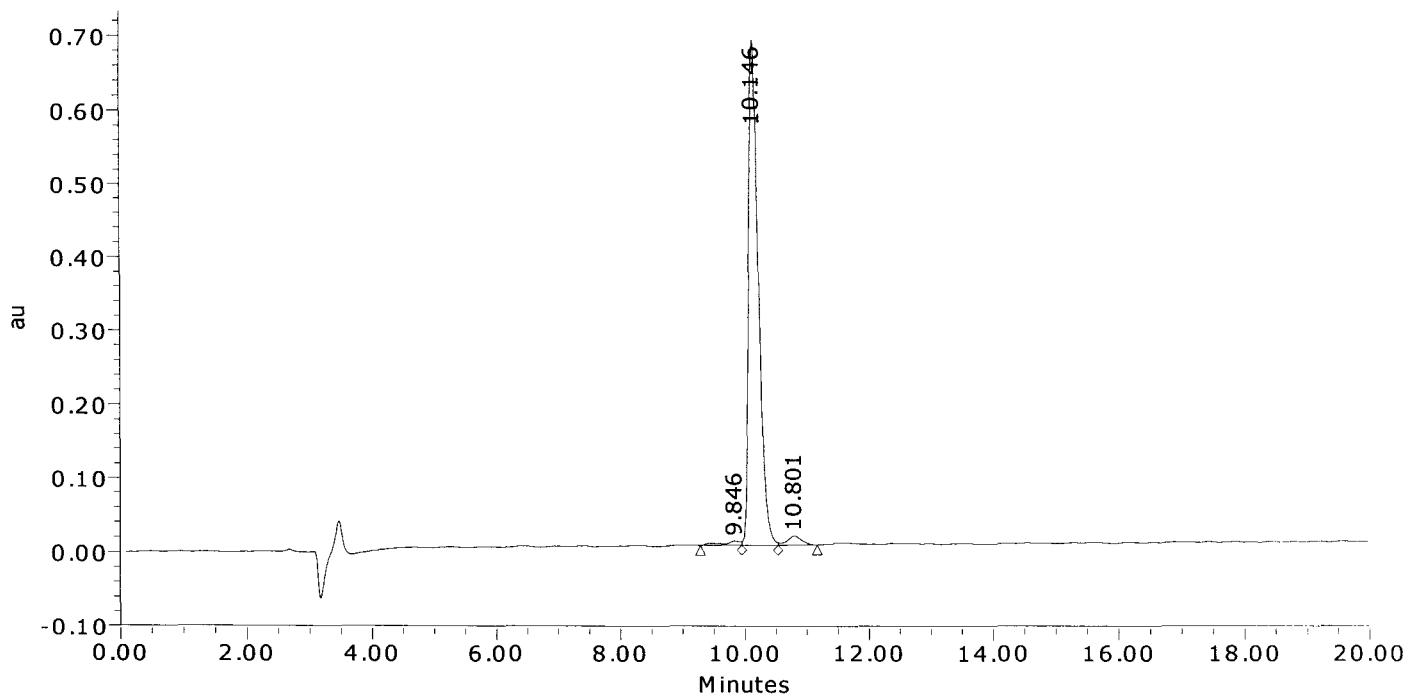
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344791/SW05080T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 10:49:56 CST  
Sample ID: 344791 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344791\_A Final\_PDA  
Date Acquired: 5/15/2008 18:32:08 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.5	9.846	118601	5852
2	95.9	10.146	7513109	684512
3	2.6	10.801	202082	12428
Sum	100.00		7833791	702792.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344791

Lot # : SW05080T

Chemist : Yan Li

Date Acquired :

5/16/2008 16:30:26 CST

Expected MS :

MW: 1586.9

Acq. Method Set :

Import

Processing Method :

344791\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

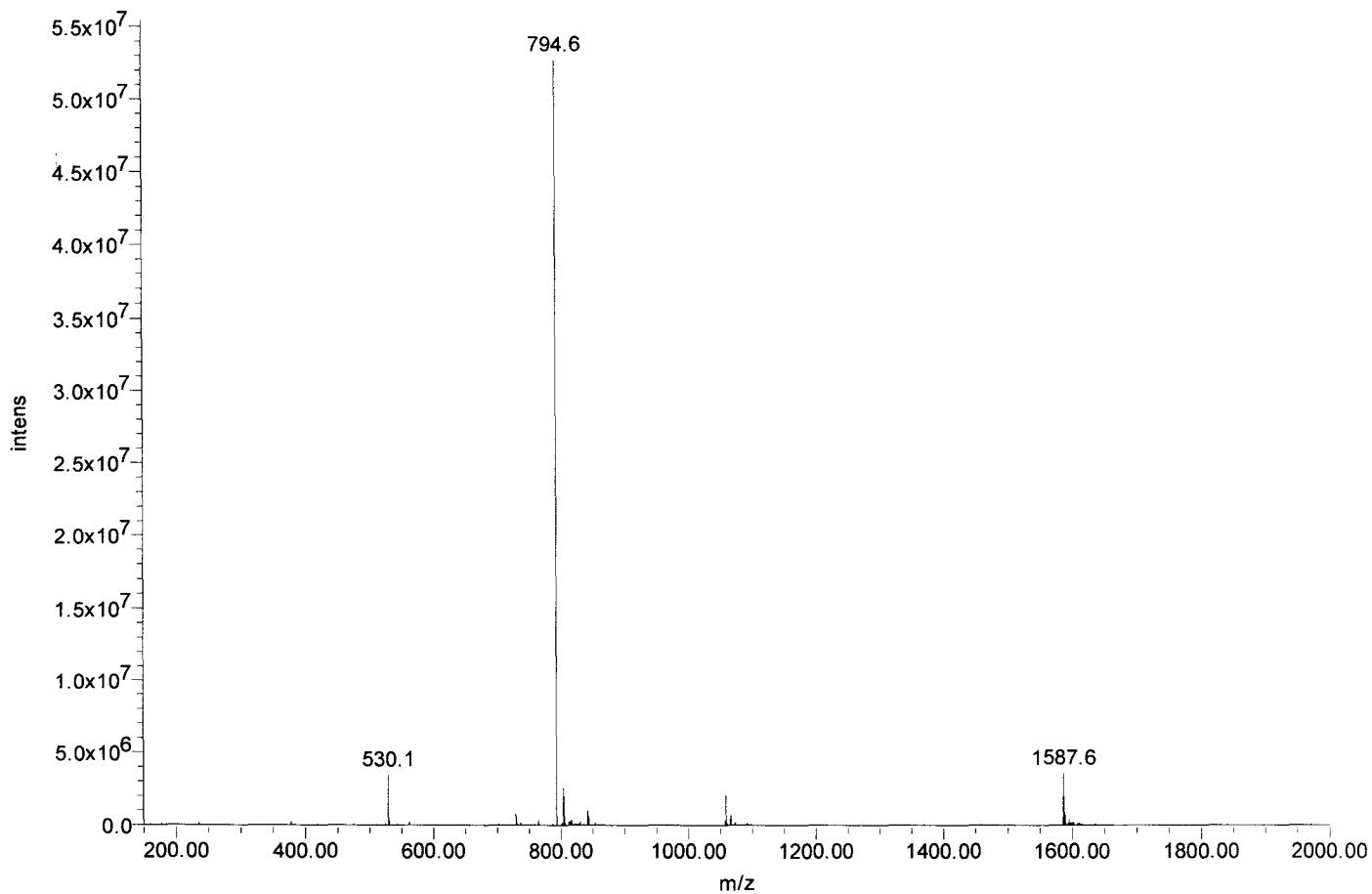
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #52  
SLNFPIAKVEPVKVA  
Cat#5761 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344792                   **Lot #:** SW05058T

**Sequence:** Ser-Leu-Asn-Phe-Pro-Ile-Ala-Lys-Val-Glu-Pro-Val-Lys-Val-Ala

**Molecular Weight:** 1612.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 92.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 74.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.97		Leu	1.00	1.10		Pro	2.00	2.07	
Asx	1.00	1.00		Lys	2.00	1.96		Ser	1.00	0.80	
Glx	1.00	1.00		Phe	1.00	0.99		Val	3.00	2.82	
Ile	1.00	0.97									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

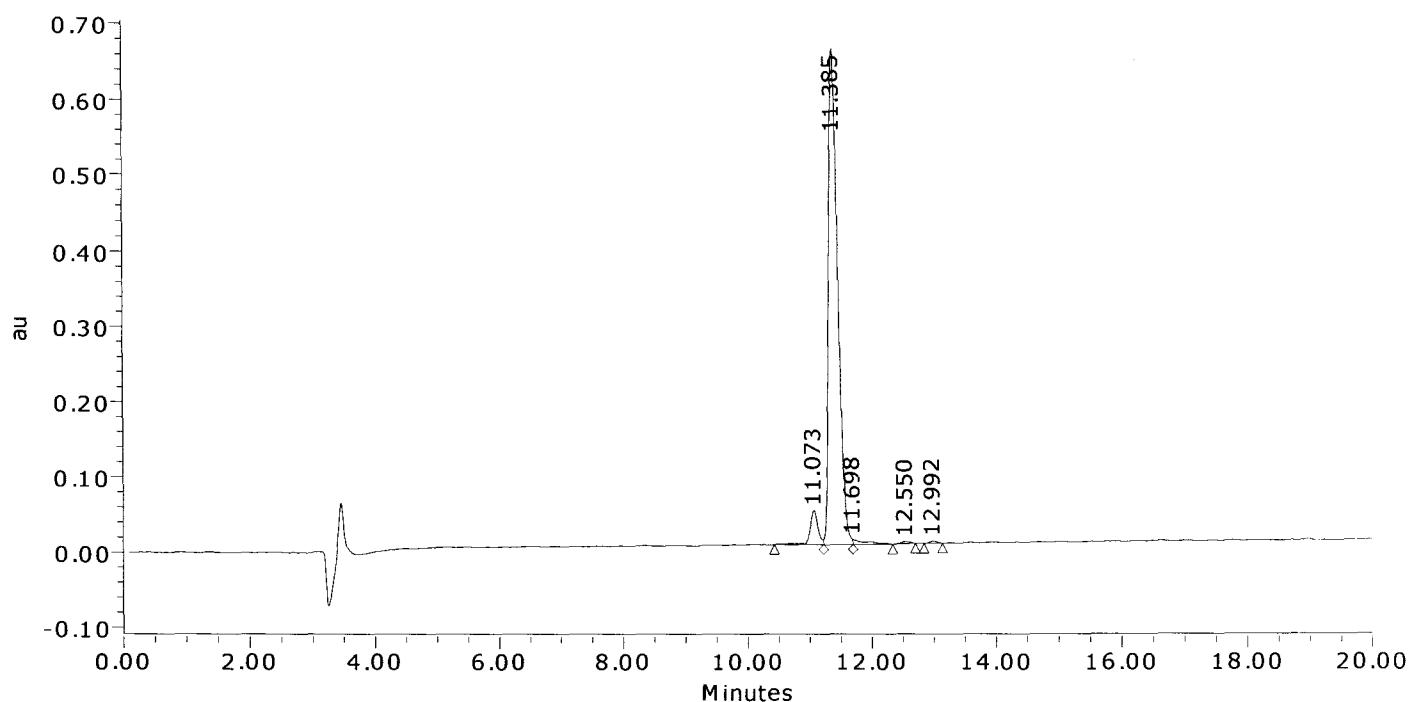
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344792/SW05058T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 14:38:15 CST  
Sample ID: 344792 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344792\_A Final\_PDA  
Date Acquired: 5/14/2008 13:44:38 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	5.7	11.073	419494	45496
2	92.1	11.385	6786722	656212
3	1.5	11.698	108218	7027
4	0.4	12.550	29612	2885
5	0.3	12.992	24020	3104
Sum	100.00		7368067	714723.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344792**

**Lot # : SW05058T**

**Chemist : Yan Li**

Date Acquired :

5/15/2008 13:36:18 CST

Expected MS :

MW: 1612.0

Acq. Method Set :

Import

Processing Method :

344792\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

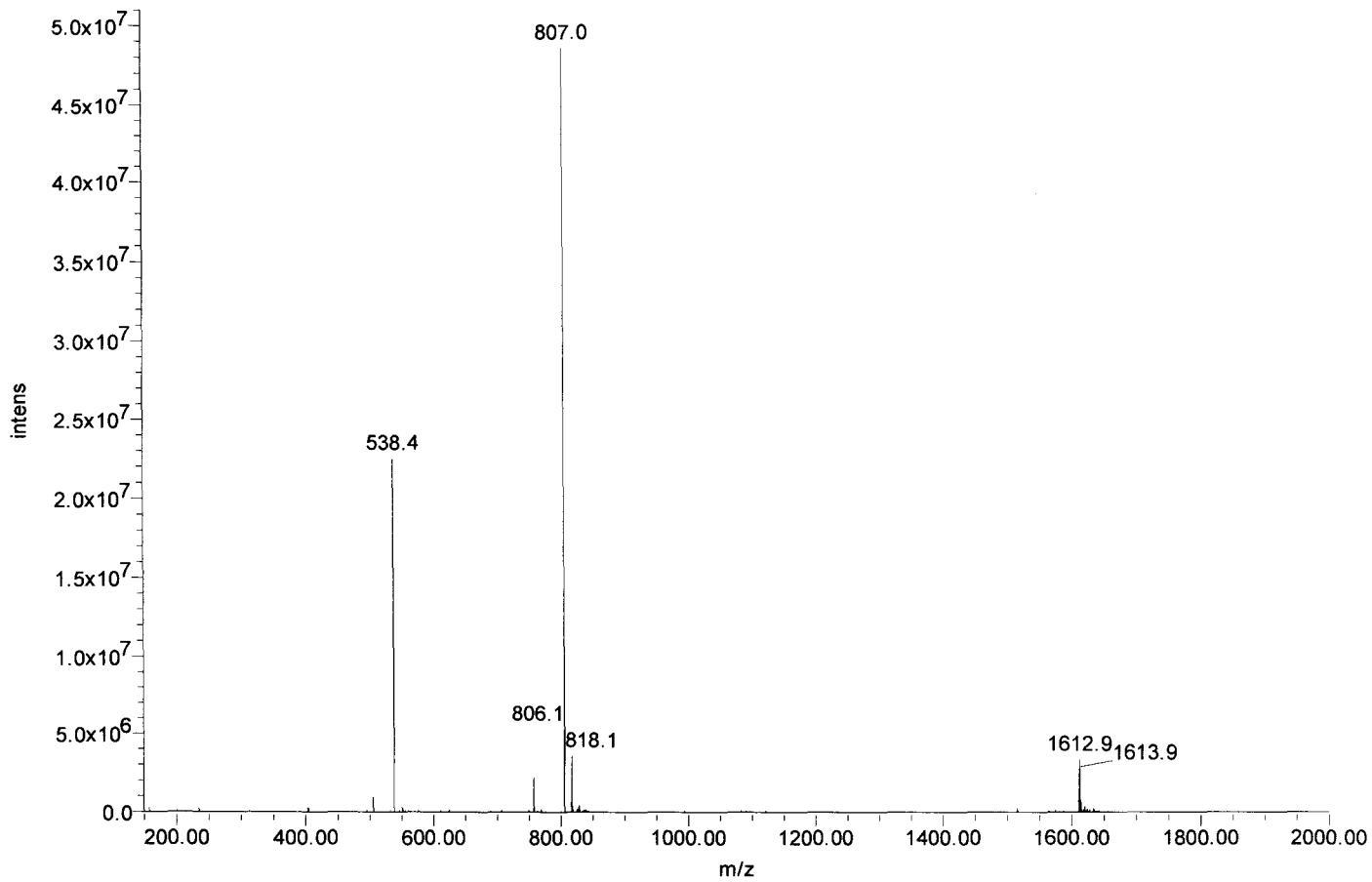
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #53  
PIAKVEPVKVALKPG  
Cat#5762 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344793                   **Lot #:** SW05011T

**Sequence:** Pro-Ile-Ala-Lys-Val-Glu-Pro-Val-Lys-Val-Ala-Leu-Lys-Pro-Gly

**Molecular Weight:** 1545.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"

(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 70.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Ile	1.00	0.98		Pro	3.00	2.95	
Glx	1.00	1.01		Leu	1.00	1.15		Val	3.00	2.87	
Gly	1.00	1.02		Lys	3.00	3.00					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/14/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

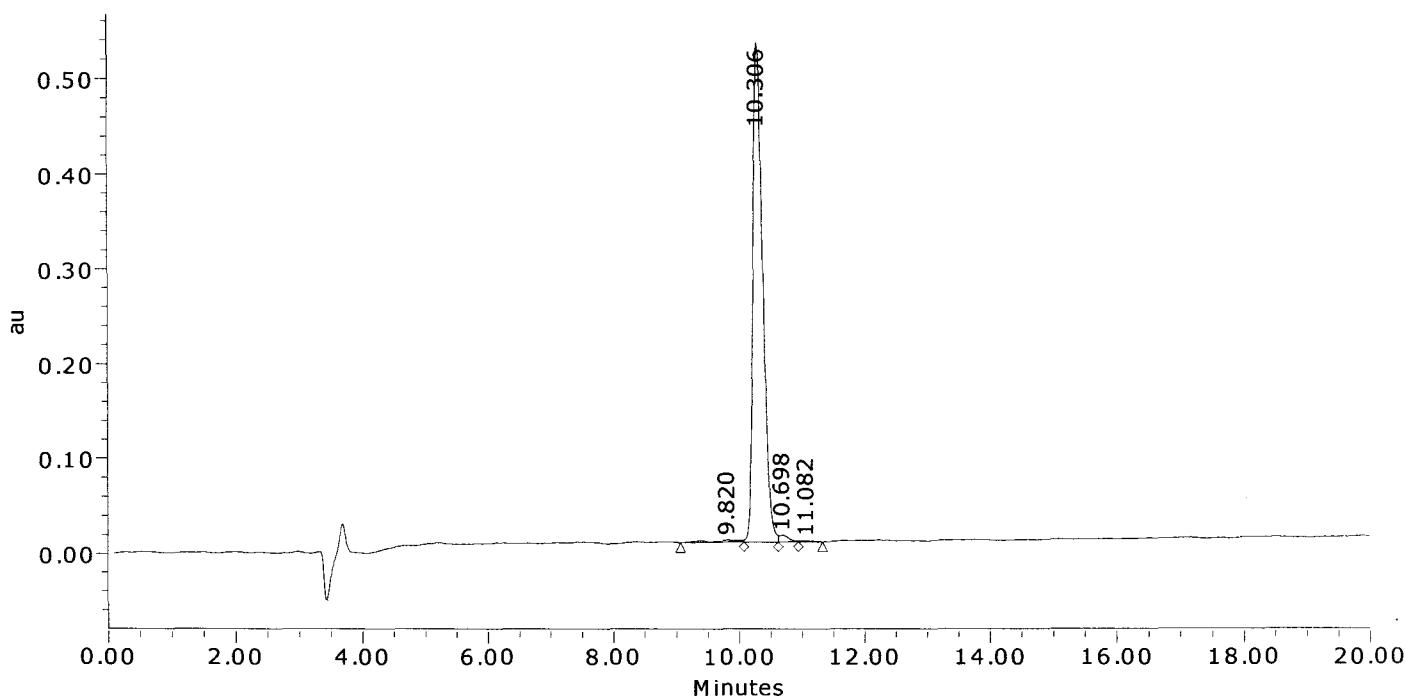
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344793/SW05011T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/12/2008 13:44:37 CST
Sample ID:	344793	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344793_A Final_PDA
Date Acquired:	5/12/2008 13:04:41 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.3	9.820	78104	2194
2	97.1	10.306	5708465	524412
3	1.3	10.698	78144	6853
4	0.2	11.082	11597	782
Sum	100.00		5876309	534240.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344793

Lot # : SW05011T

Chemist : Yan Li

Date Acquired :

5/12/2008 13:04:41 CST

Expected MS :

MW: 1545.9

Acq. Method Set :

Import

Processing Method :

344793\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

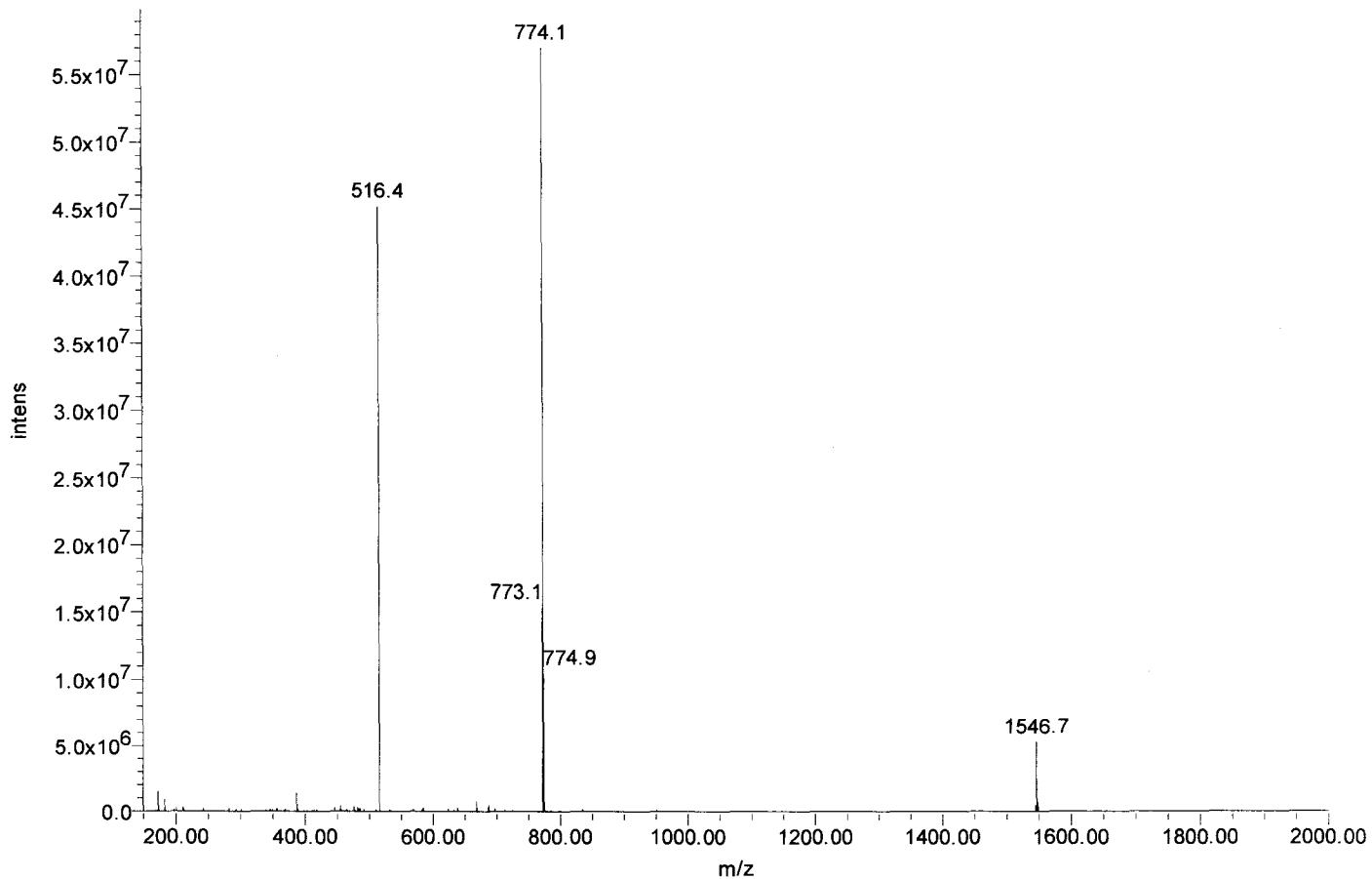
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #54  
VEPVKVALKPGKDGP  
Cat#5763 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344794                   **Lot #:** SW05034T  
**Sequence:** Val-Glu-Pro-Val-Lys-Val-Ala-Leu-Lys-Pro-Gly-Lys-Asp-Gly-Pro  
**Molecular Weight:** 1533.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 69.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.97		Gly	2.00	1.97		Pro	3.00	3.16	
Asx	1.00	1.00		Leu	1.00	1.09		Val	3.00	2.76	
Glx	1.00	0.97		Lys	3.00	2.87					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink that reads 'Yan Li'.

Date: 05/15/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

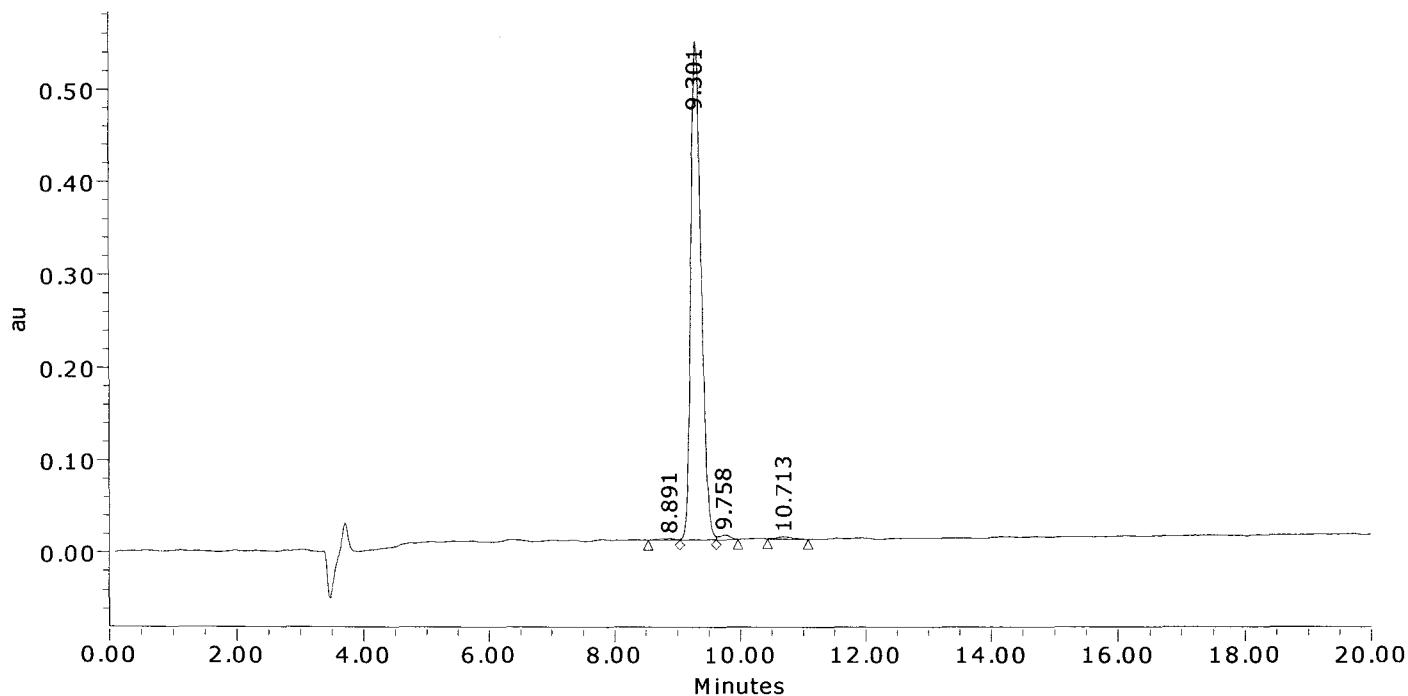
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344794/SW05034T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmlf2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 12:48:37 CST  
Sample ID: 344794 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344794\_A Final\_PDA  
Date Acquired: 5/13/2008 11:54:29 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16%-36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.4	8.891	27545	1724
2	97.9	9.301	6185905	538126
3	1.0	9.758	64647	5422
4	0.6	10.713	40689	2468
<b>Sum</b>	<b>100.00</b>		<b>6318786</b>	<b>547740.1</b>

**American Peptide Company, Inc.  
MS Analysis Report**

**Sample ID:**

**344794**

**Lot # : SW05034T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 13:14:41 CST

Expected MS :

MW: 1533.8

Acq. Method Set :

Import

Processing Method :

344794\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

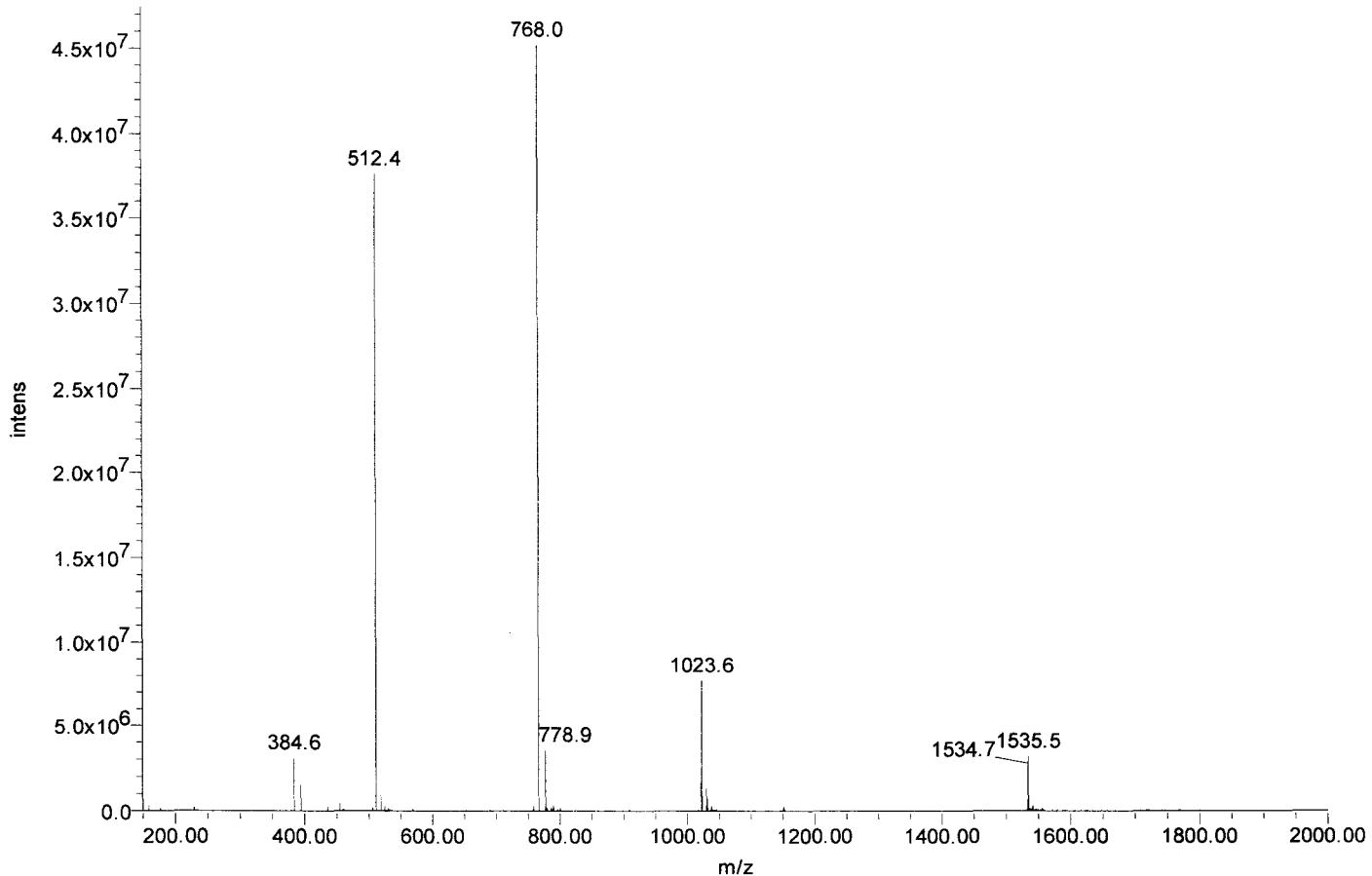
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #55  
KVALKPGKDGPKLKQ  
Cat#5764 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344795                   **Lot #:** SW05038T  
**Sequence:** Lys-Val-Ala-Leu-Lys-Pro-Gly-Lys-Asp-Gly-Pro-Lys-Leu-Lys-Gln  
**Molecular Weight:** 1607.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 69.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.98		Gly	2.00	1.89		Pro	2.00	2.04	
Asx	1.00	1.00		Leu	2.00	1.95		Val	1.00	1.01	
Glx	1.00	1.14		Lys	5.00	4.73					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/20/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

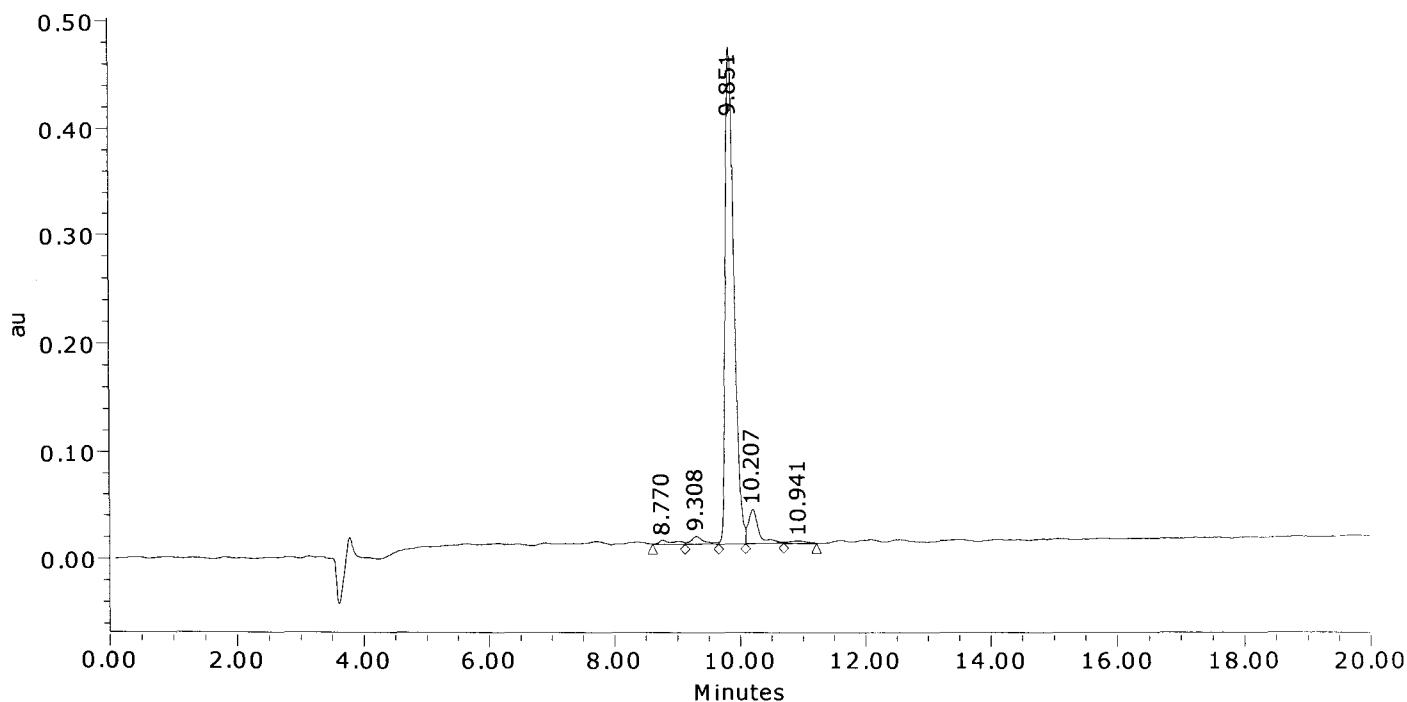
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344795/SW05038T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 11:55:05 CST  
Sample ID: 344795 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344795\_A Final\_PDA  
Date Acquired: 5/13/2008 22:57:47 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 12% -32% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.2	8.770	59777	3571
2	2.0	9.308	100350	7413
3	88.6	9.851	4415242	462335
4	7.3	10.207	363502	31521
5	0.9	10.941	42376	2289
Sum	100.00		4981247	507128.4

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344795

Lot # : SW05038T

Chemist : Yan Li

Date Acquired :

5/13/2008 22:57:47 CST

Expected MS :

MW: 1607.0

Acq. Method Set :

Import

Processing Method :

344795\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

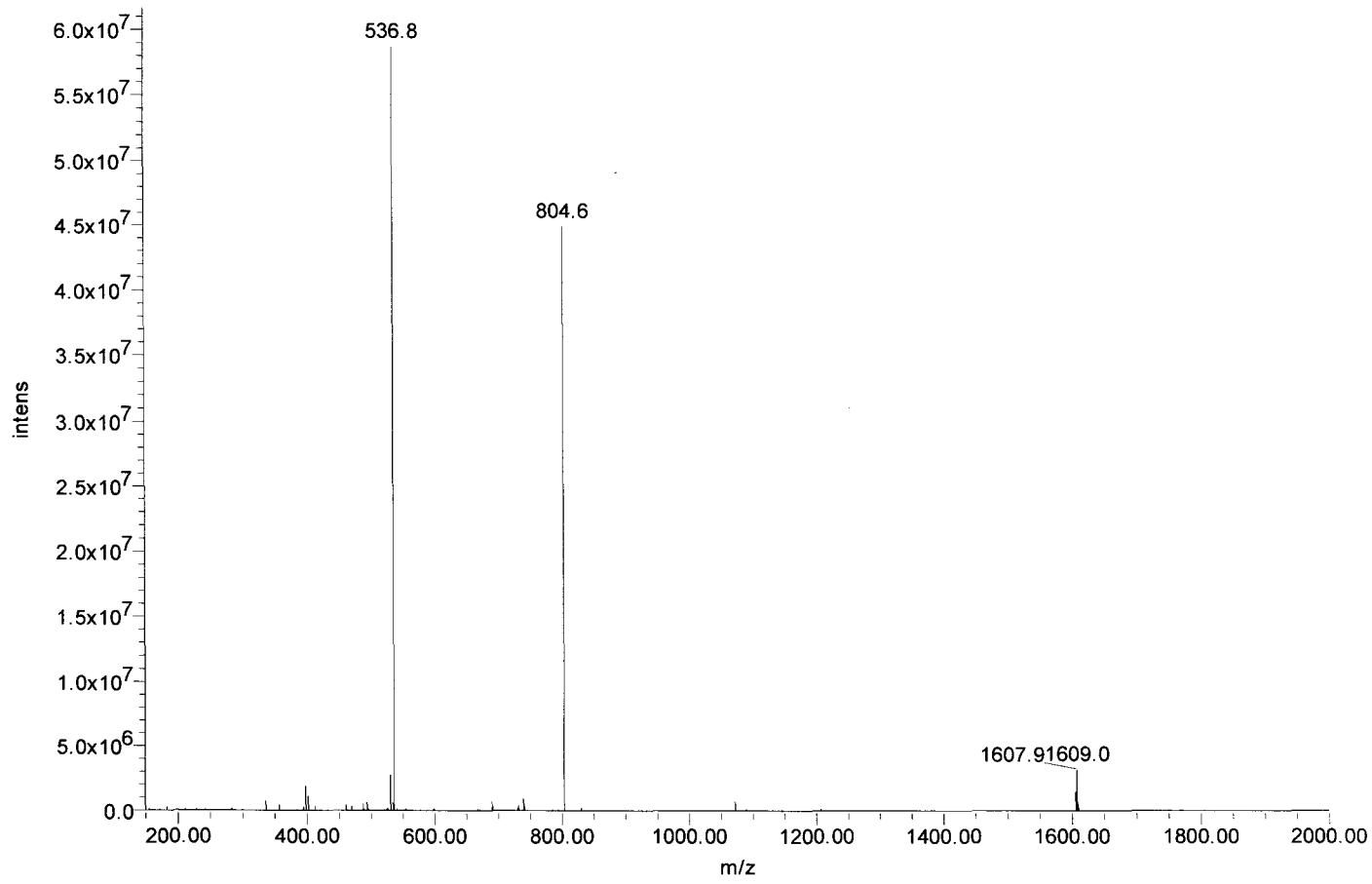
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #56  
KPGKJDGPKLKQWPLS  
Cat#5765 Lot#080132  
Net Wt. 1mg

**Product Name:**

Custom Peptide

**Product #:**

344796

**Lot #:** SW05015T**Sequence:**

Lys-Pro-Gly-Lys-Asp-Gly-Pro-Lys-Leu-Lys-Gln-Trp-Pro-Leu-Ser

**Molecular Weight:**

1679.0 amu

**Mass Spectra Analysis:**

Electrospray "Exhibits correct MW"

(see attached MS spectrogram)

**HPLC Analysis:**

Peptide Purity: 96.9%

(see attached HPLC chromatogram)

**Solubility:**

1.0 mg/mL in 10% Acetonitrile in water

**Appearance:**

White lyophilized powder

**Peptide Content:**

69.5%

**Counter Ion:**

Trifluoroacetate

**Date of Mfg:**

05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.01		Leu	2.00	2.23		Ser	1.00	0.83	
Glx	1.00	1.00		Lys	4.00	4.01		Trp	1.00	0.00	*1
Gly	2.00	2.02		Pro	3.00	3.06					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT: Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.**

Quality Assurance By:

Date: 05/14/08

Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

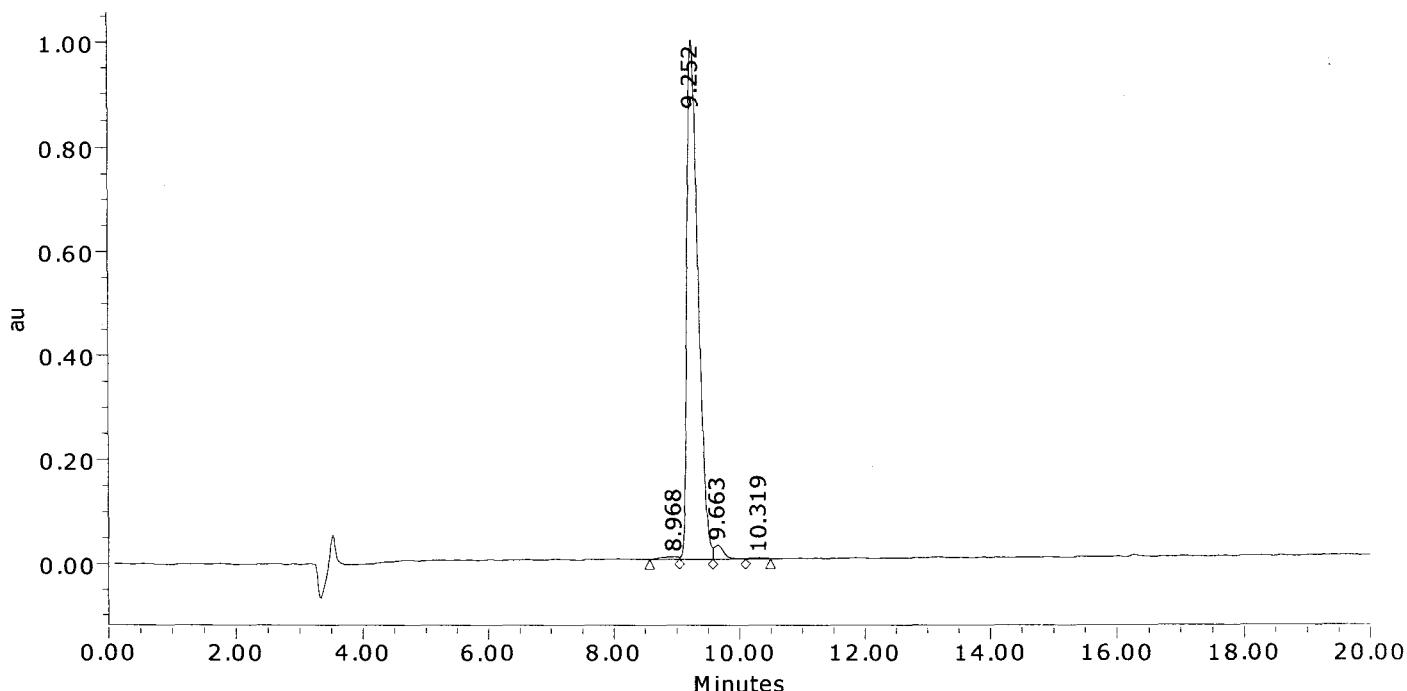
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344796/SW05015T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 14:46:55 CST  
Sample ID: 344796 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344796\_A Final\_PDA  
Date Acquired: 5/12/2008 14:05:47 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	8.968	80592	4290
2	96.9	9.252	12214884	993953
3	2.2	9.663	283345	26445
4	0.2	10.319	20629	1664
Sum	100.00		12599449	1026352.5

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344796

Lot # : SW05015T

Chemist : Yan Li

Date Acquired :

5/12/2008 14:05:47 CST

Expected MS :

MW: 1679.0

Acq. Method Set :

Import

Processing Method :

344796\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

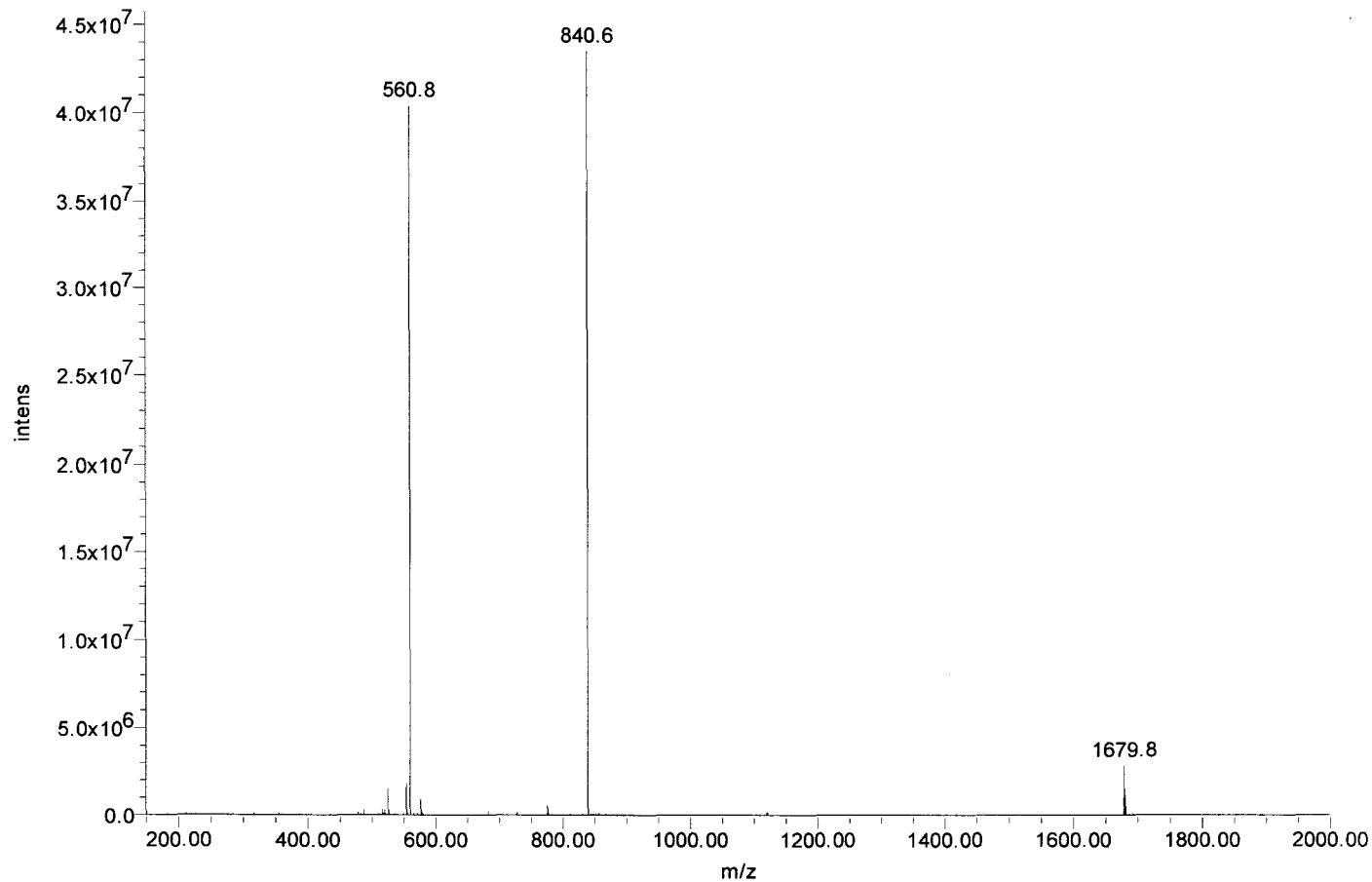
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #57**  
**DGPKLKQWPLSKEKI**  
**Cat#5766 Lot#080132**  
**Net Wt. 1mg**

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00	Ile	1.00	1.00	Pro	2.00	2.06
Glx	2.00	1.90	Leu	2.00	2.22	Ser	1.00	0.82
Gly	1.00	0.99	Lys	4.00	3.96	Trp	1.00	0.00 *1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Jan L Li **Date:** 05/16/08  
**Quality Control Department**

## Quality Control Department

# AMERICAN PEPTIDE COMPANY, INC.

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

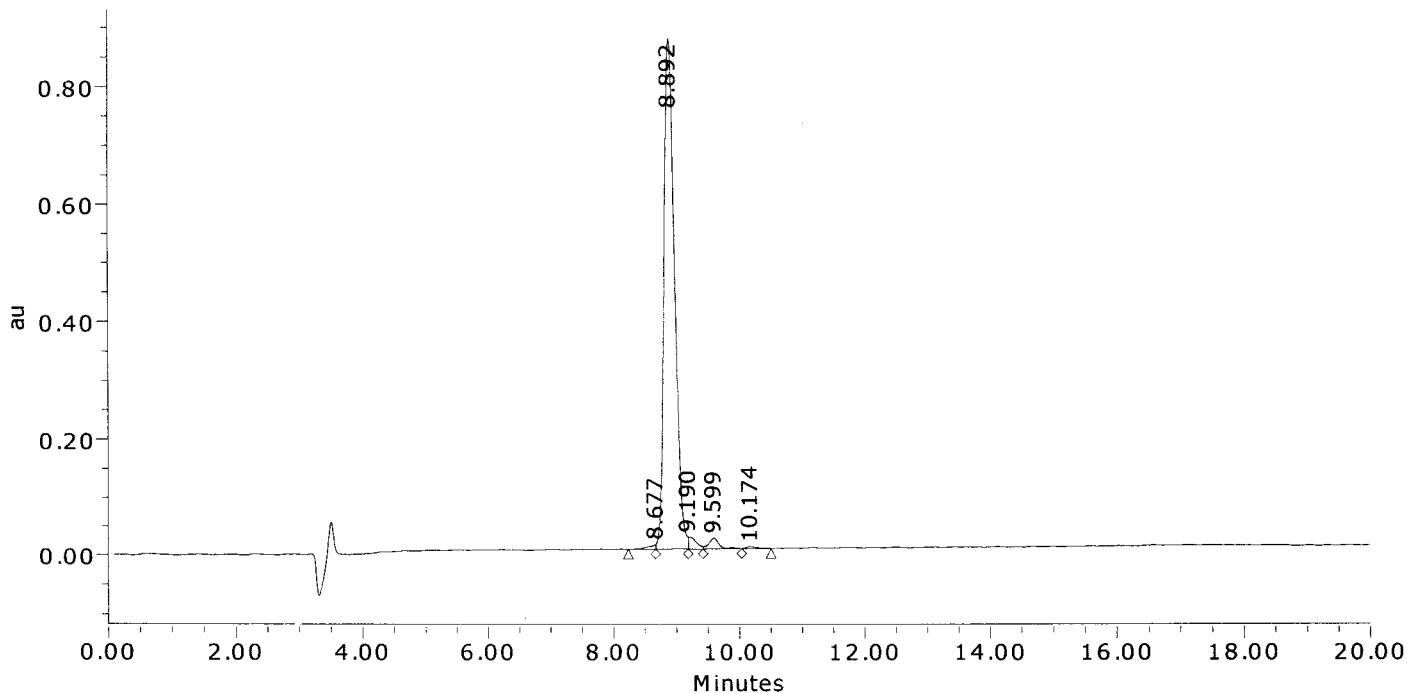
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344797/SW05049T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 16:33:35 CST  
Sample ID: 344797 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344797\_A Final\_PDA  
Date Acquired: 5/13/2008 15:47:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	8.677	66227	8319
2	95.3	8.892	10217403	871930
3	1.7	9.190	185395	20857
4	2.0	9.599	209921	18437
5	0.4	10.174	40372	3558
Sum	100.00		10719318	923102.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344797**

**Lot # : SW05049T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 15:47:35 CST

Expected MS :

MW: 1767.1

Acq. Method Set :

Import

Processing Method :

344797\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

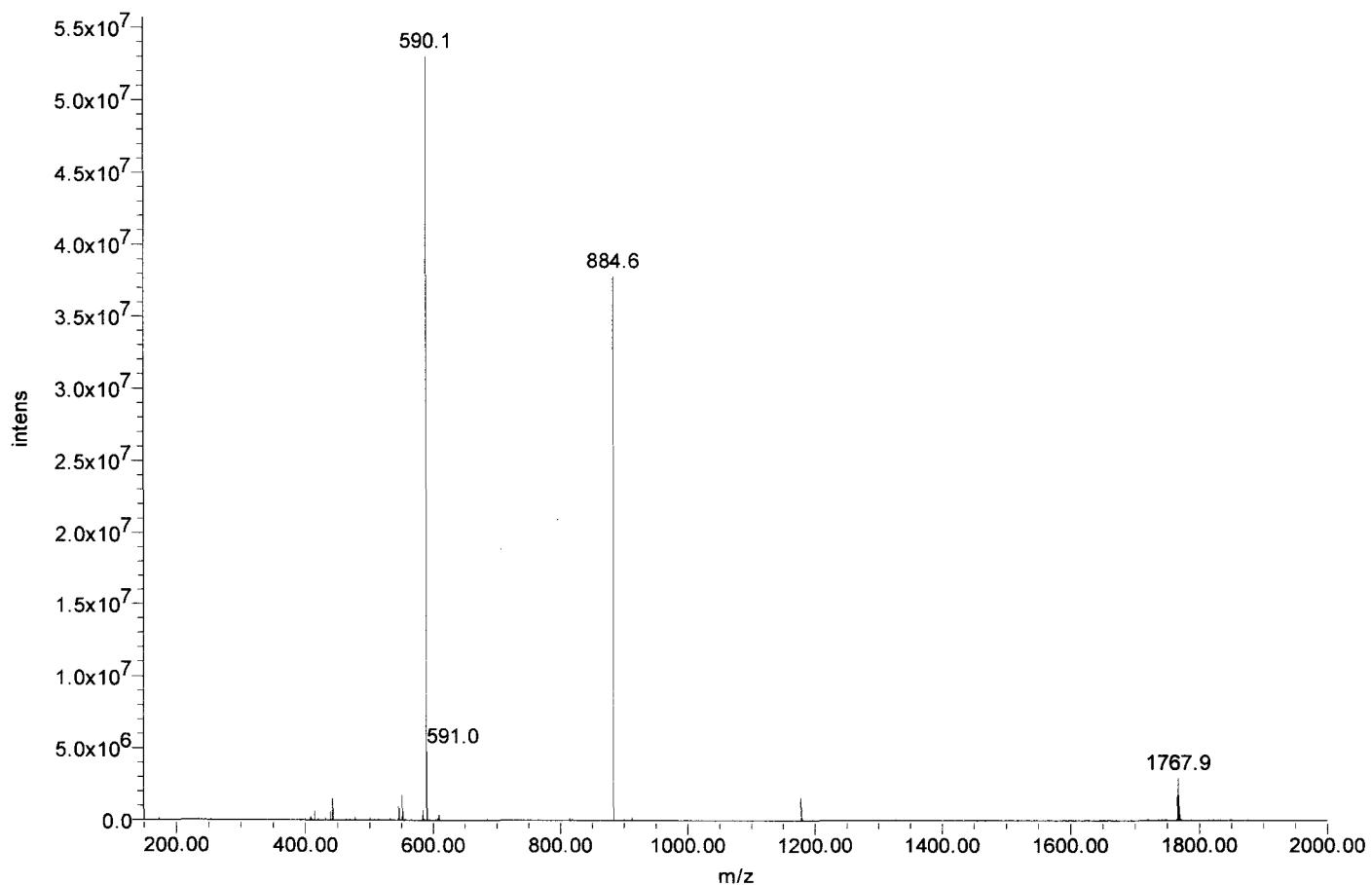
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #58  
LKQWPLSKEKIVAI.R  
Cat#5767 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344798

**Lot #:** SW05062T

**Sequence:** Leu-Lys-Gln-Trp-Pro-Leu-Ser-Lys-Glu-Lys-Ile-Val-Ala-Leu-Arg

**Molecular Weight:** 1809.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 92.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 70.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Leu	3.00	3.34		Ser	1.00	0.87	
Arg	1.00	0.96		Lys	3.00	2.94		Trp	1.00	0.00	*2
Glx	2.00	2.21		Pro	1.00	0.98		Val	1.00	0.78	*1
Ile	1.00	0.70	*1								

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

\*2 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/20/08

Quality Control Department

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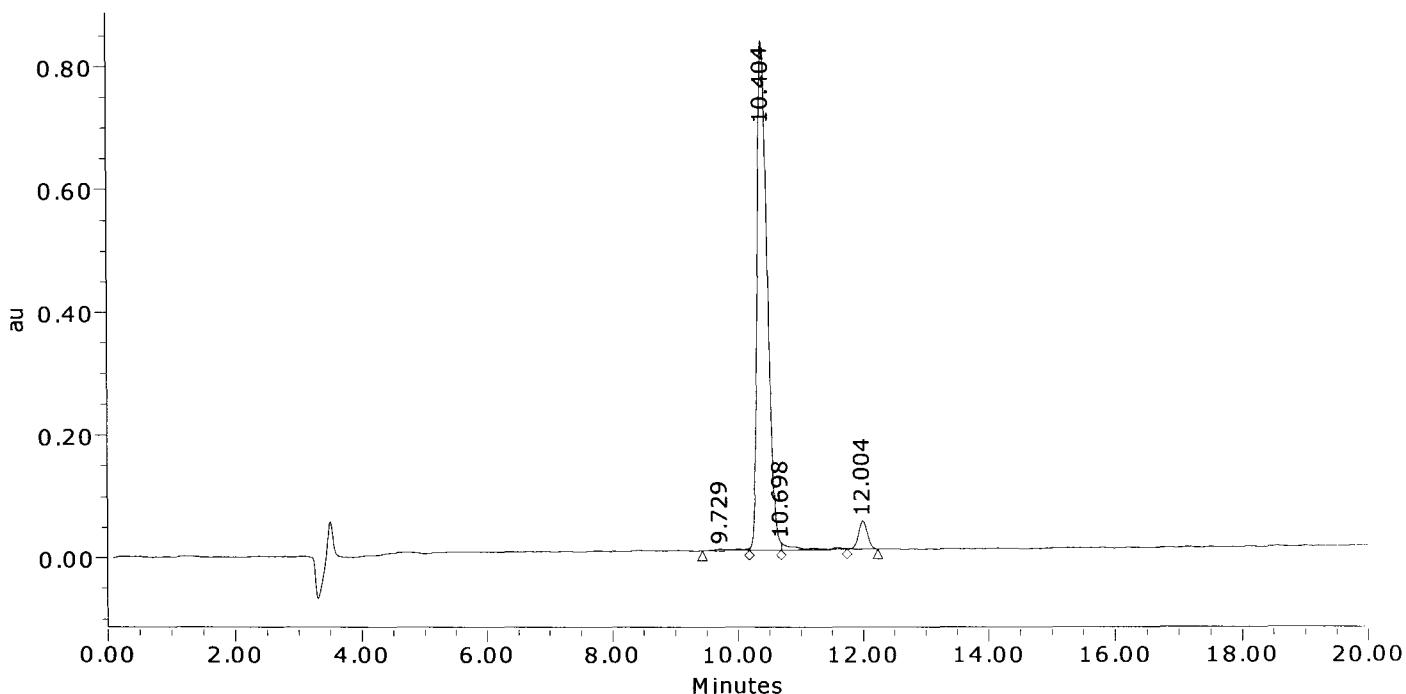
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344798/SW05062T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 9:20:17 CST  
Sample ID: 344798 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344798\_A Final\_PDA  
Date Acquired: 5/14/2008 14:22:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C

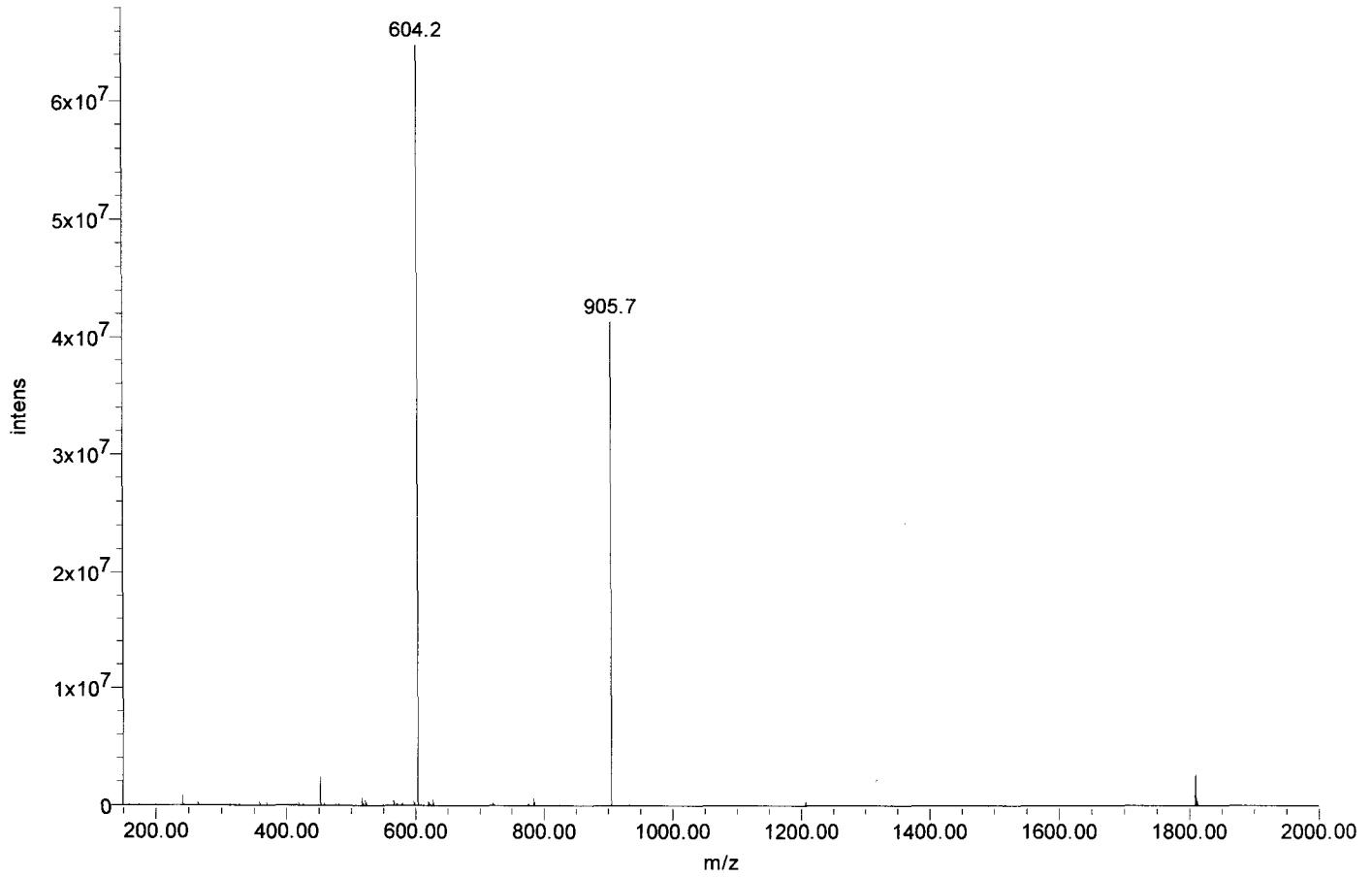


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.7	9.729	69073	3105
2	92.9	10.404	9300463	830422
3	1.9	10.698	185526	11578
4	4.6	12.004	457789	46157
<b>Sum</b>	<b>100.00</b>		<b>10012852</b>	<b>891262.2</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344798      **Lot # :** SW05062T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 14:22:09 CST  
Expected MS : MW: 1809.2  
Acq. Method Set : Import  
Processing Method : 344798\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #59  
PLSKEKIVALREICE  
Cat#5768 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344799                   **Lot #:** SW05008T  
**Sequence:** Pro-Leu-Ser-Lys-Glu-Lys-Ile-Val-Ala-Leu-Arg-Glu-Ile-Cys-Glu  
**Molecular Weight:** 1728.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 78.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Ile	2.00	1.22	*2	Pro	1.00	1.03	
Arg	1.00	1.03		Leu	2.00	2.19		Ser	1.00	0.81	
Cys	1.00	0.00	*1	Lys	2.00	2.03		Val	1.00	0.72	*2
Glx	3.00	2.86									

\*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 05/14/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

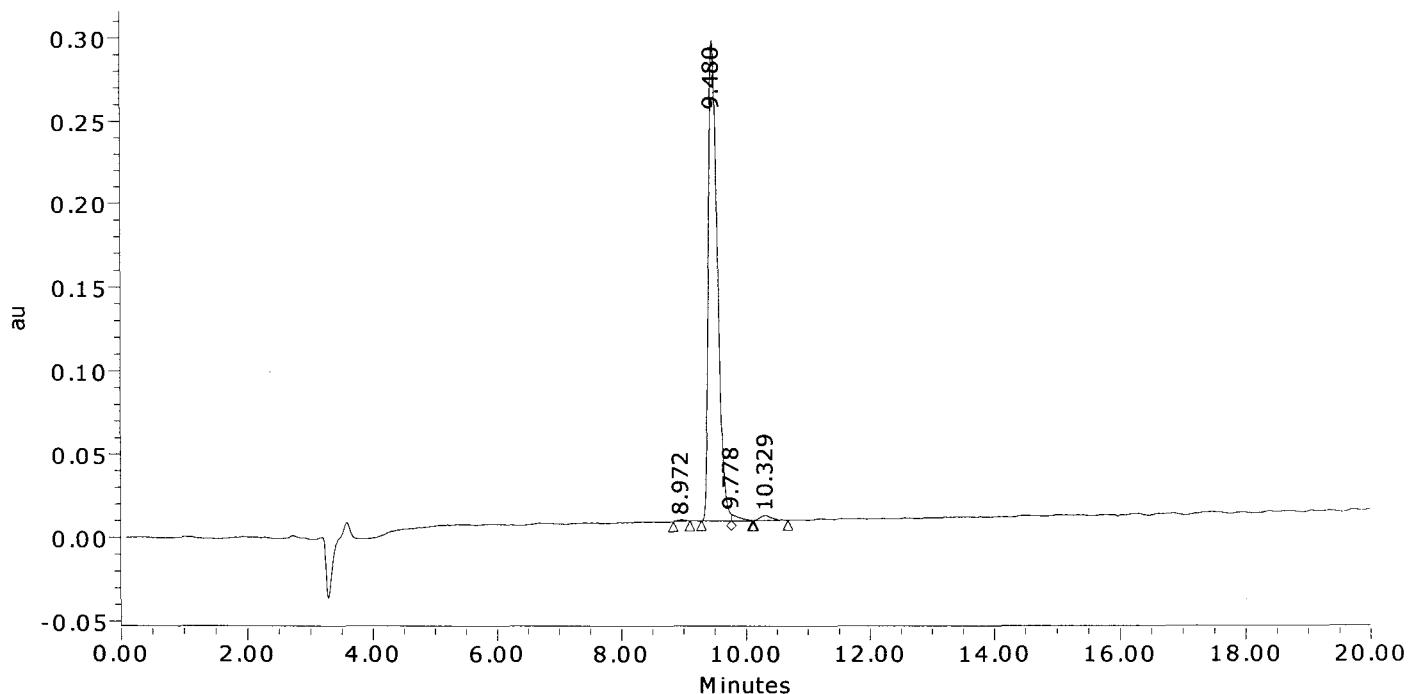
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344799/SW05008T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 12:50:16 CST  
Sample ID: 344799 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344799\_A Final\_PDA  
Date Acquired: 5/12/2008 11:49:10 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.3	8.972	8367	988
2	97.4	9.480	2899736	288572
3	1.0	9.778	30377	3721
4	1.3	10.329	39654	2859
Sum	100.00		2978134	296139.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344799

Lot # : SW05008T

Chemist : Yan Li

Date Acquired :

5/12/2008 11:49:10 CST

Expected MS :

MW: 1728.1

Acq. Method Set :

Import

Processing Method :

344799\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

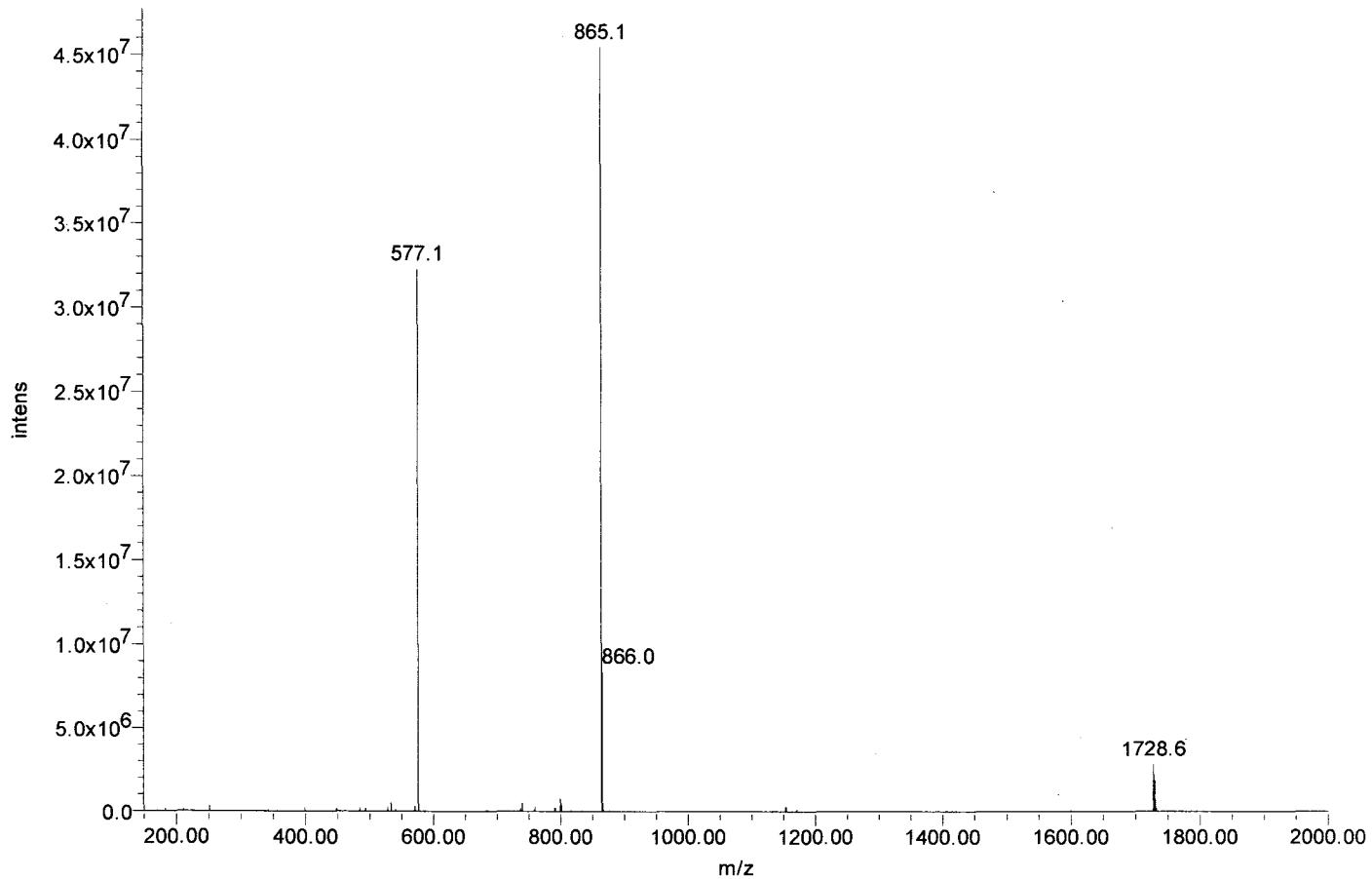
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #60  
EKIVALREICEKMEK  
Cat#5769 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344800                   **Lot #:** SW05077T

**Sequence:** Glu-Lys-Ile-Val-Ala-Leu-Arg-Glu-Ile-Cys-Glu-Lys-Met-Glu-Lys

**Molecular Weight:** 1819.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 74.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.99		Glx	4.00	3.72		Lys	3.00	3.01	
Arg	1.00	1.00		Ile	2.00	1.20	*2	Met	1.00	0.99	
Cys	1.00	0.00	*1	Leu	1.00	0.99		Val	1.00	0.73	*2

\*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/20/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

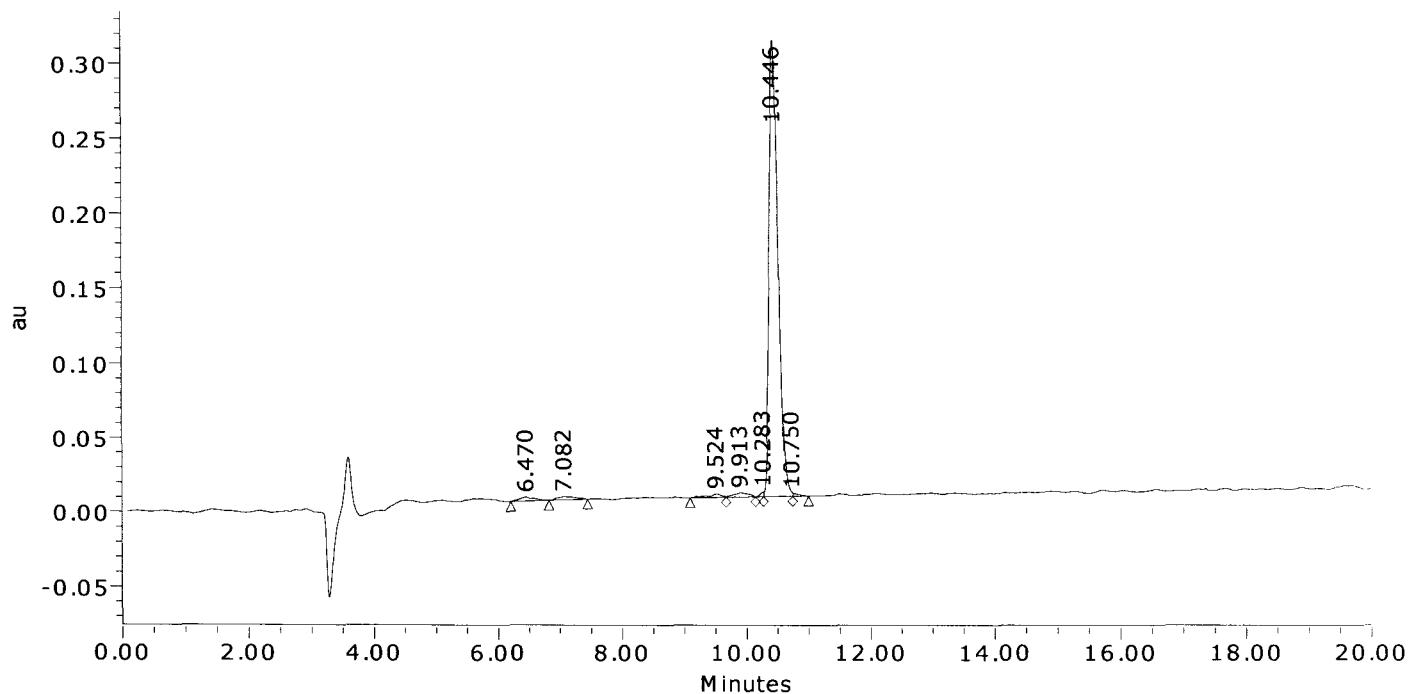
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344800/SW05077T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 11:33:07 CST  
Sample ID: 344800 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344800\_A Final\_PDA  
Date Acquired: 5/15/2008 20:27:00 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	1.3	6.470	43321	2768
2	1.4	7.082	46516	2288
3	1.1	9.524	35594	2214
4	1.5	9.913	48608	2920
5	0.4	10.283	12284	3272
6	93.9	10.446	3070280	305451
7	0.4	10.750	13867	2334
<b>Sum</b>	<b>100.00</b>		<b>3270470</b>	<b>321245.8</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344800**

**Lot # : SW05077T**

**Chemist : Yan Li**

Date Acquired :

5/16/2008 16:34:17 CST

Expected MS :

MW: 1819.2

Acq. Method Set :

Import

Processing Method :

344800\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

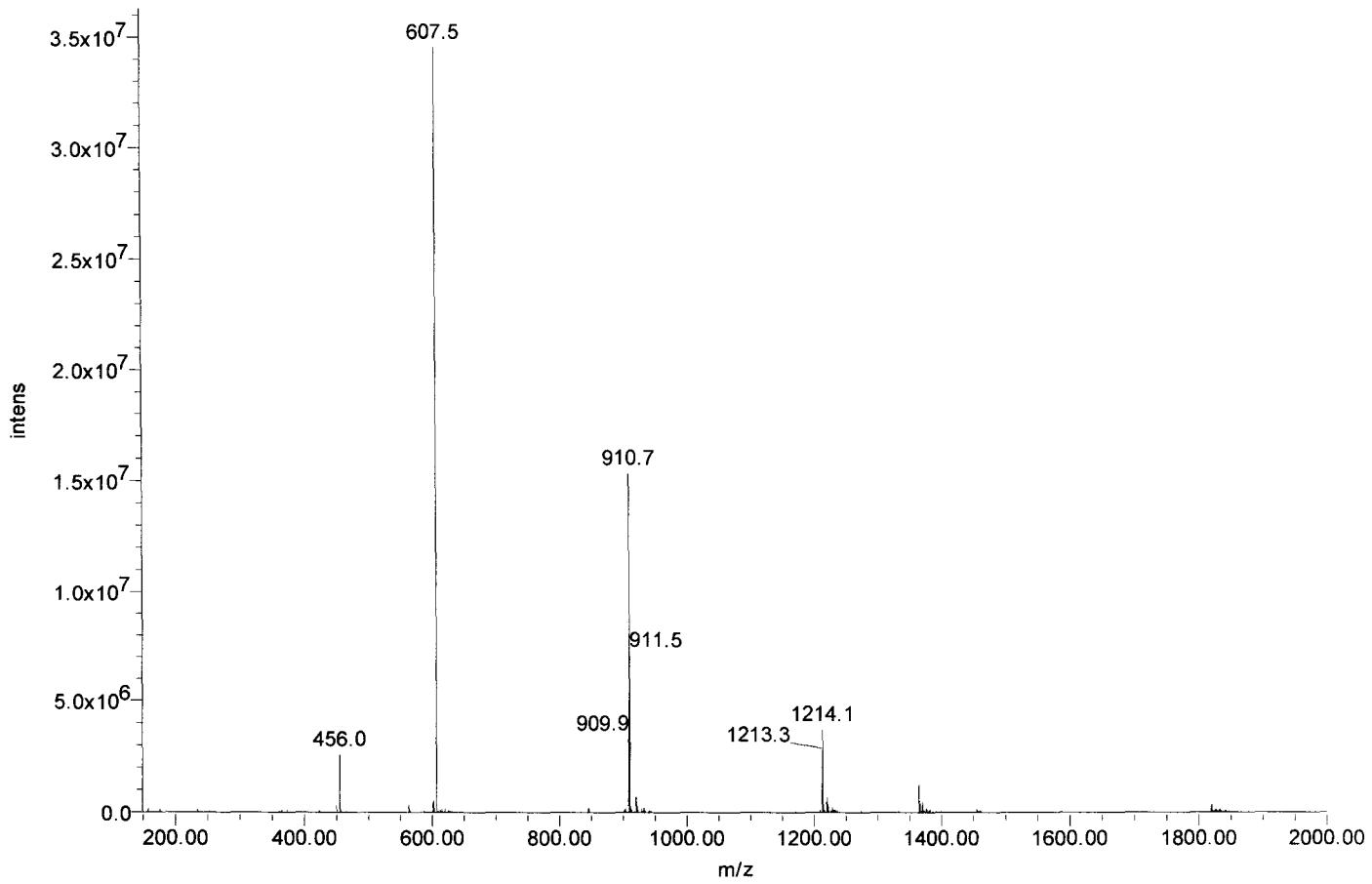
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #61  
ALREICEKMEKDQQL  
Cat#5770 Lot#080132  
Net Wt. 1mg

**Product #:** 344801                   **Lot #:** SW05074T

**Sequence:** Ala - Leu - Arg - Glu - Ile - Cys - Glu - Lys - Met - Glu - Lys - Asp - Gly - Gln - Leu

**Molecular Weight:** 1763.1 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 96.7 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 75.4 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.03		Glx	4.00	4.03		Lys	2.00	2.05	
Arg	1.00	0.97		Gly	1.00	1.05		Met	1.00	1.04	
Asx	1.00	1.00		Ile	1.00	0.81					
Cys	1.00	0.00	*1	Leu	2.00	2.06					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

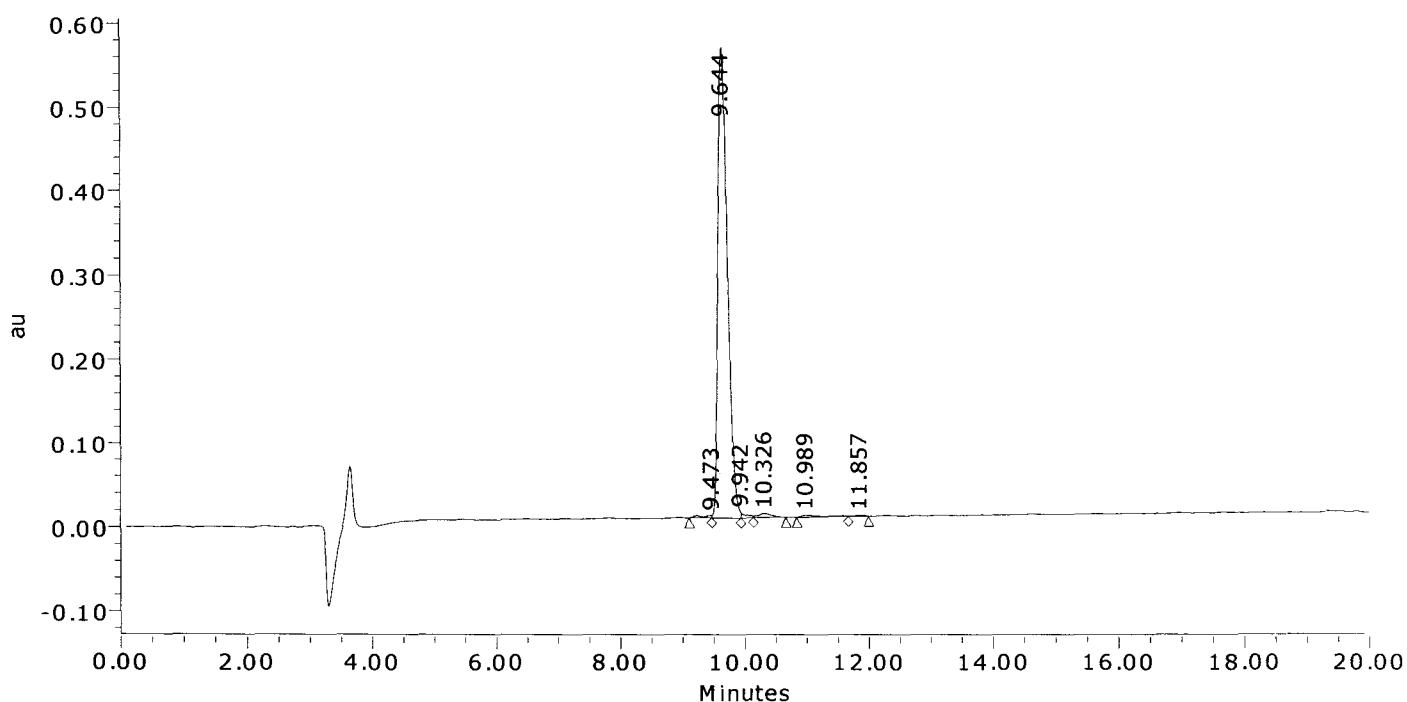
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344801/SW05074T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 9:25:57 CST  
Sample ID: 344801 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344801\_A Final\_PDA  
Date Acquired: 5/14/2008 21:39:32 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	9.473	36794	2619
2	96.7	9.644	5969187	560751
3	0.6	9.942	36894	6497
4	1.1	10.326	66238	4495
5	0.9	10.989	55219	2552
6	0.2	11.857	11296	1244
Sum	100.00		6175629	578158.5

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344801

Lot # : SW05074T

Chemist : Yan Li

Date Acquired :

5/14/2008 21:39:32 CST

Expected MS :

MW: 1763.1

Acq. Method Set :

Import

Processing Method :

344801\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

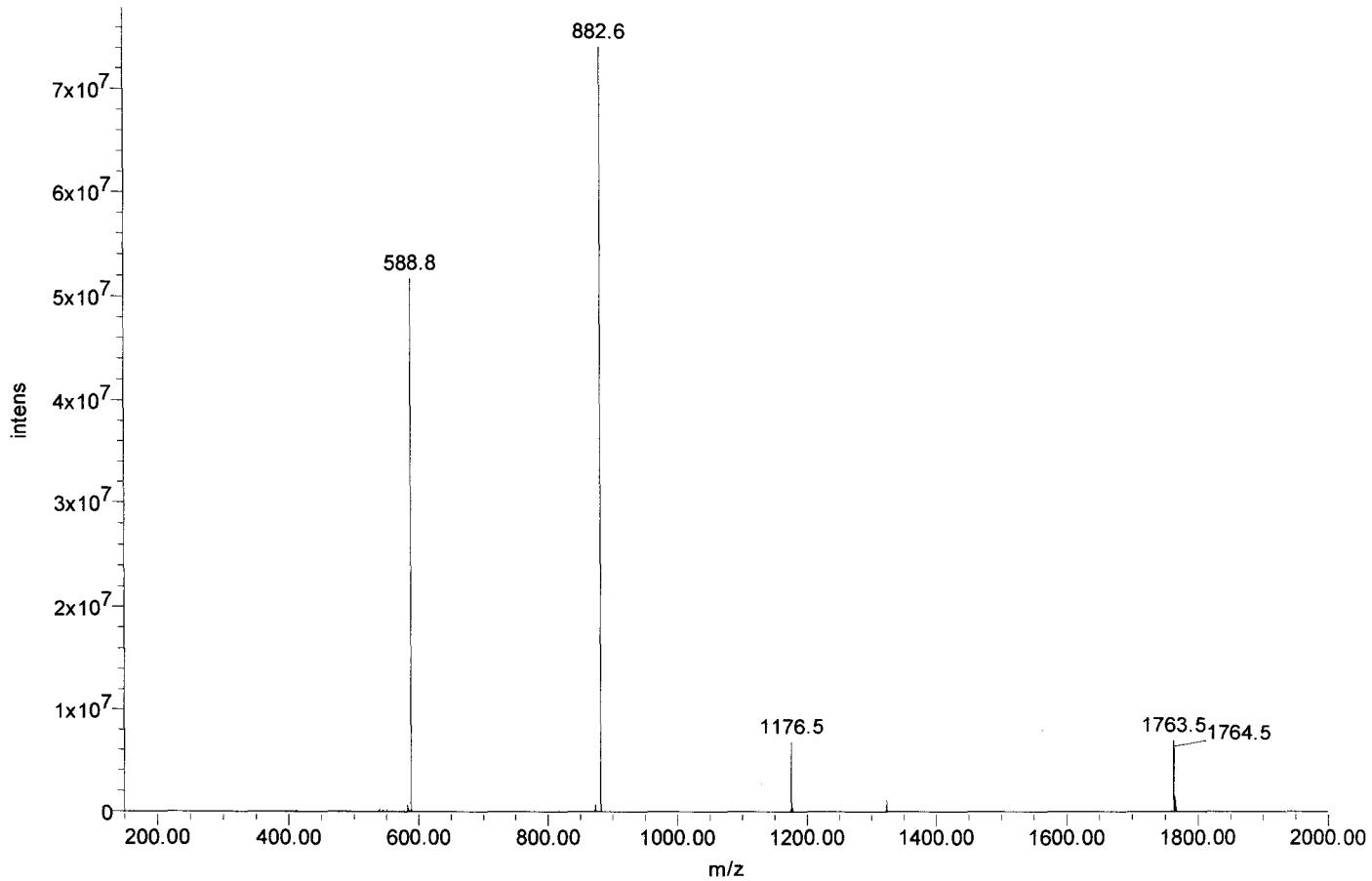
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #62  
ICEKMEKDQGLEFAP  
Cat#5771 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344802                   **Lot #:** SW05035T

**Sequence:** Ile - Cys - Glu - Lys - Met - Glu - Lys - Asp - Gly - Gln - Leu - Glu - Glu - Ala - Pro

**Molecular Weight:** 1720.0 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 88.1 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 65.3 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.08		Gly	1.00	1.06		Met	1.00	1.05	
Asx	1.00	1.00		Ile	1.00	0.83		Pro	1.00	1.00	
Cys	1.00	0.00	*1	Leu	1.00	1.08					
Glx	5.00	5.14		Lys	2.00	2.10					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:**

*Shilpa Patel*

Quality Control Department

Date: 06/17/08

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

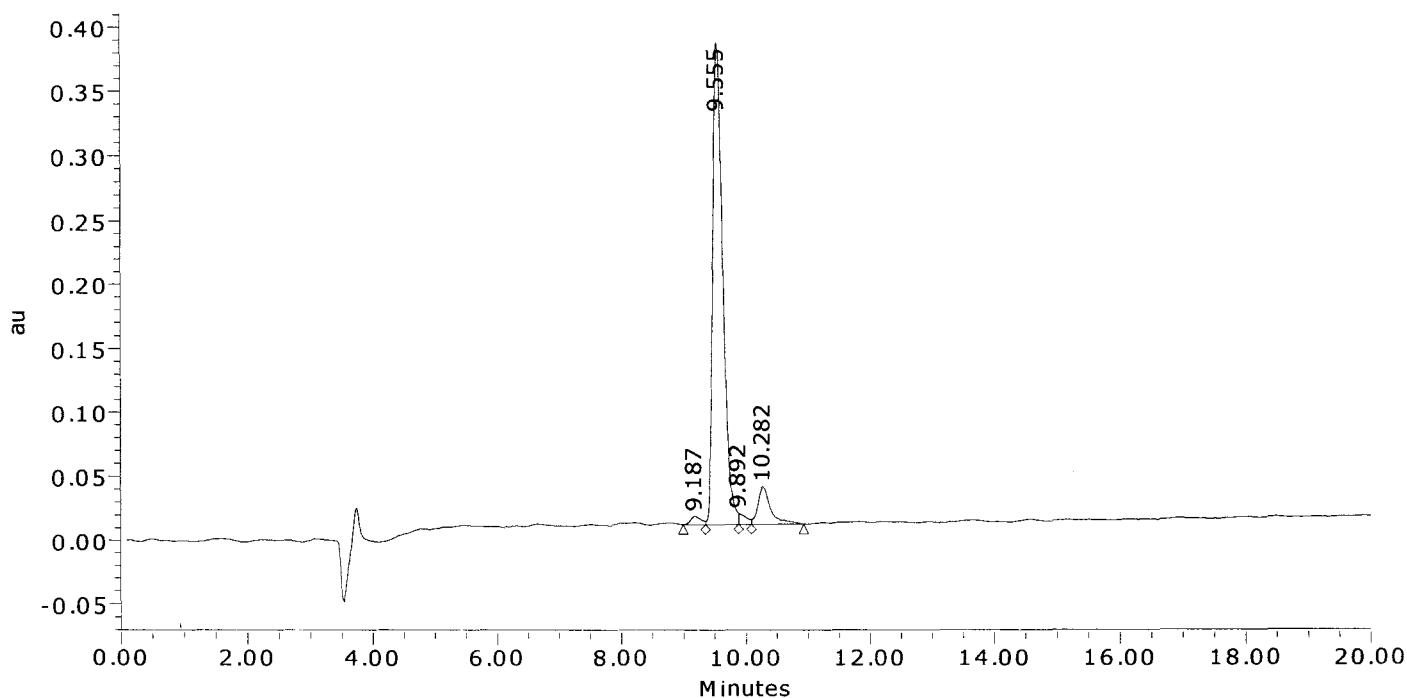
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344802/SW05035T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/13/2008 14:30:27 CST
Sample ID:	344802	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344802_A Final_PDA
Date Acquired:	5/13/2008 12:32:06 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14%-34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.6	9.187	77975	6569
2	88.1	9.555	4230541	375678
3	1.5	9.892	72477	8612
4	8.8	10.282	423497	29025
Sum	100.00		4804488	419884.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344802

Lot # : SW05035T

Chemist : Yan Li

Date Acquired :

5/13/2008 16:41:17 CST

Expected MS :

MW: 1720.0

Acq. Method Set :

Import

Processing Method :

344802\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

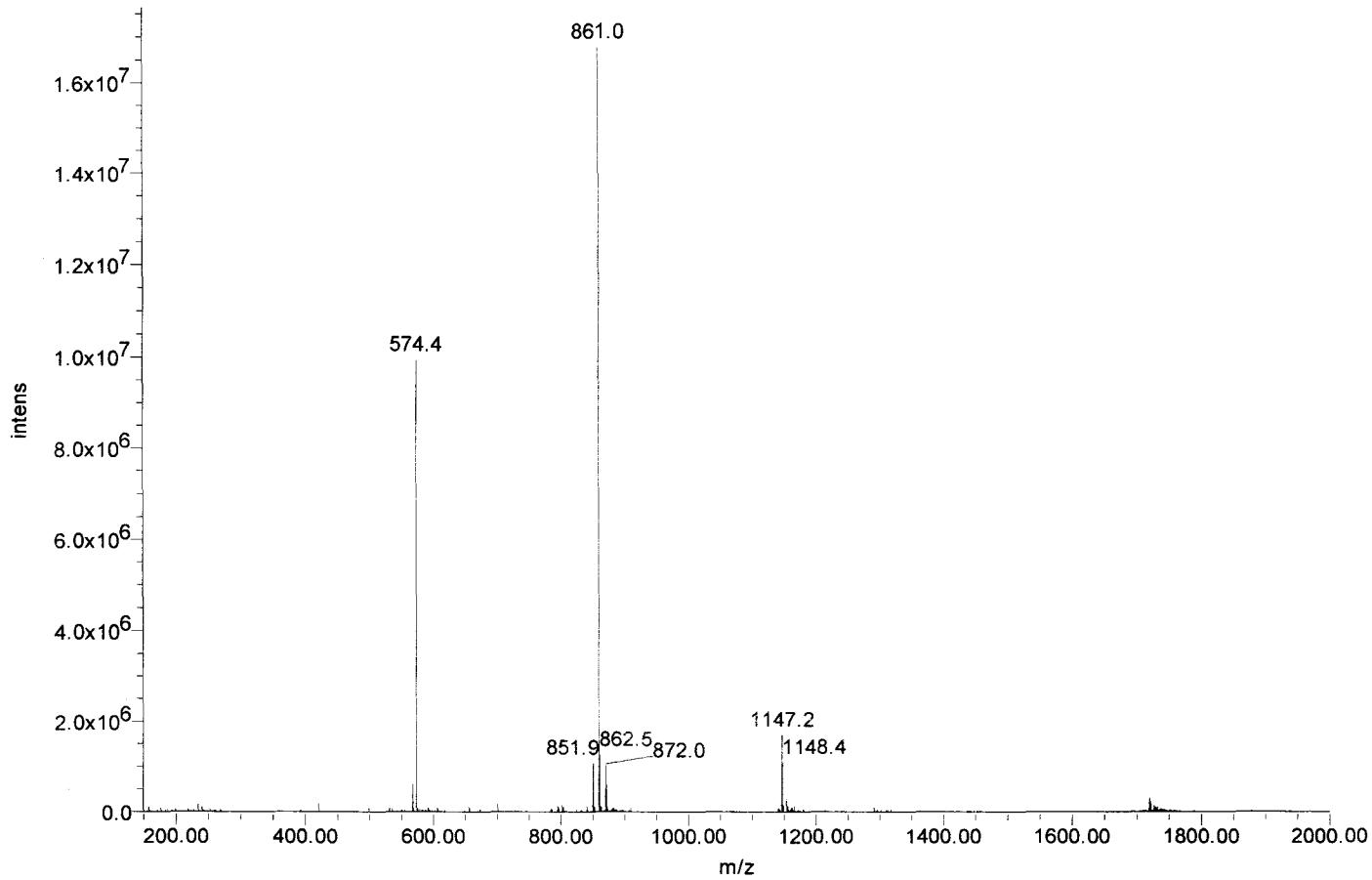
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #63  
MEKDQGLEEAPPINP  
Cat#5772 Lot#080132  
Net Wt. 1mg

#### **Amino Acid Analysis:**

<b>Calc.</b>	<b>Found</b>	<b>Remark</b>	<b>Calc.</b>	<b>Found</b>	<b>Remark</b>	<b>Calc.</b>	<b>Found</b>	<b>Remark</b>
Ala	1.00	1.00	Gly	1.00	0.99	Met	1.00	0.97
Asx	2.00	1.97	Leu	1.00	1.11	Pro	3.00	3.29
Glx	4.00	3.77	Lys	1.00	0.99	Thr	1.00	1.04

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/15/08  
**Quality Control Department**

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

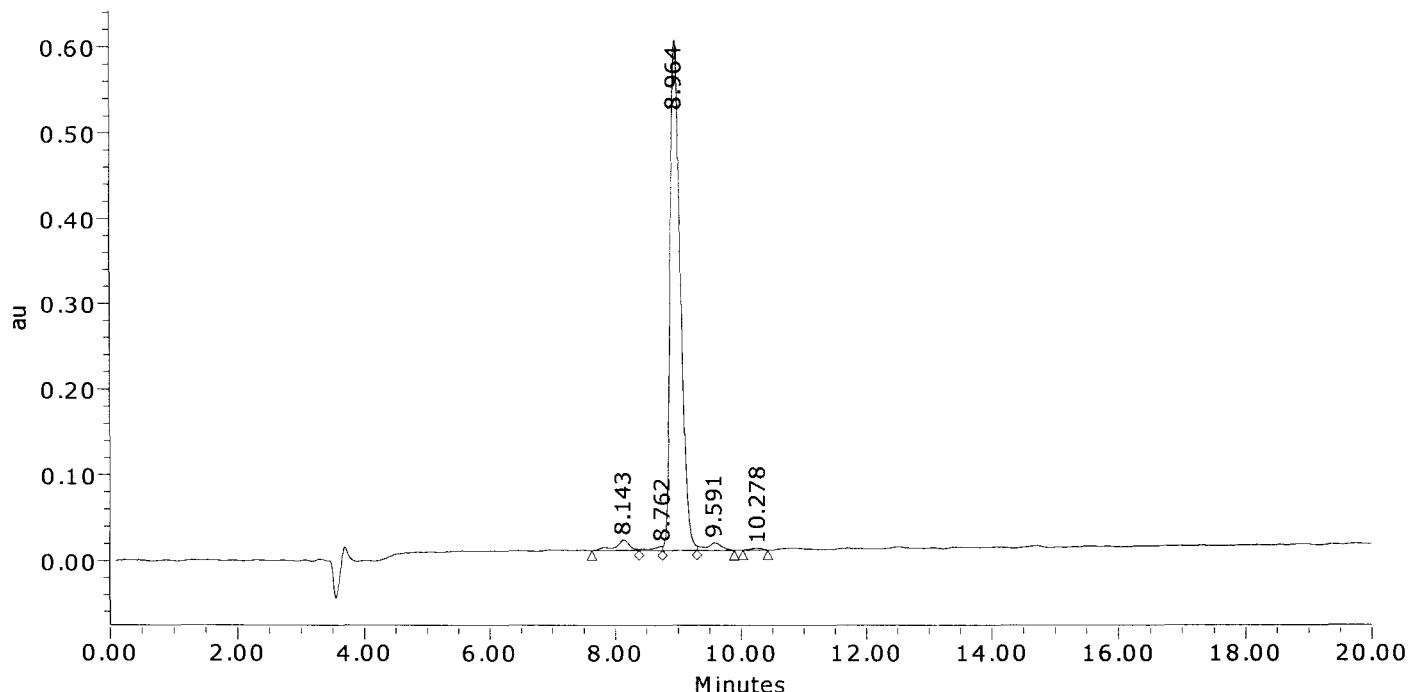
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344803/SW05040T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 15:15:07 CST  
Sample ID: 344803 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344803\_A Final\_PDA  
Date Acquired: 5/13/2008 14:29:46 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 12% -32% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	2.8	8.143	203394	12402
2	0.8	8.762	54741	4675
3	94.1	8.964	6732185	595869
4	2.0	9.591	143177	8591
5	0.3	10.278	22868	1629
Sum	100.00		7156365	623166.5

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344803

Lot # : SW05040T

Chemist : Yan Li

Date Acquired :

5/13/2008 14:29:46 CST

Expected MS :

MW: 1655.8

Acq. Method Set :

Import

Processing Method :

344803\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

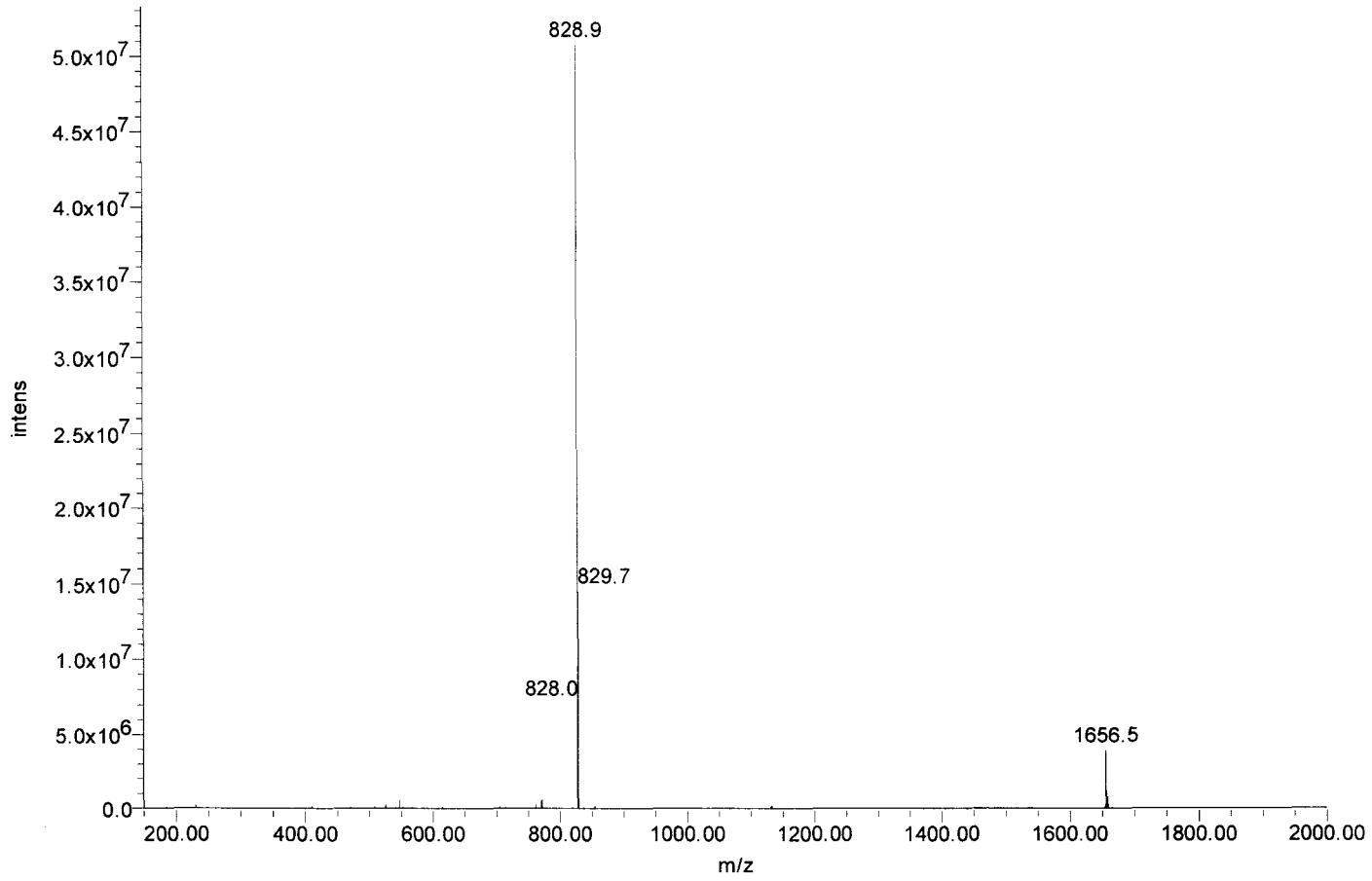
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #64  
GQLEEAAPPTNPYNTP  
Cat#5773 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344804                   **Lot #:** SW05054T  
**Sequence:** Gly-Gln-Leu-Glu-Glu-Ala-Pro-Pro-Thr-Asn-Pro-Tyr-Asn-Thr-Pro  
**Molecular Weight:** 1627.7 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 84.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	1.00	1.00		Thr	2.00	2.00	
Asx	2.00	1.98		Leu	1.00	1.09		Tyr	1.00	1.07	
Glx	3.00	2.93		Pro	4.00	4.34					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/16/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

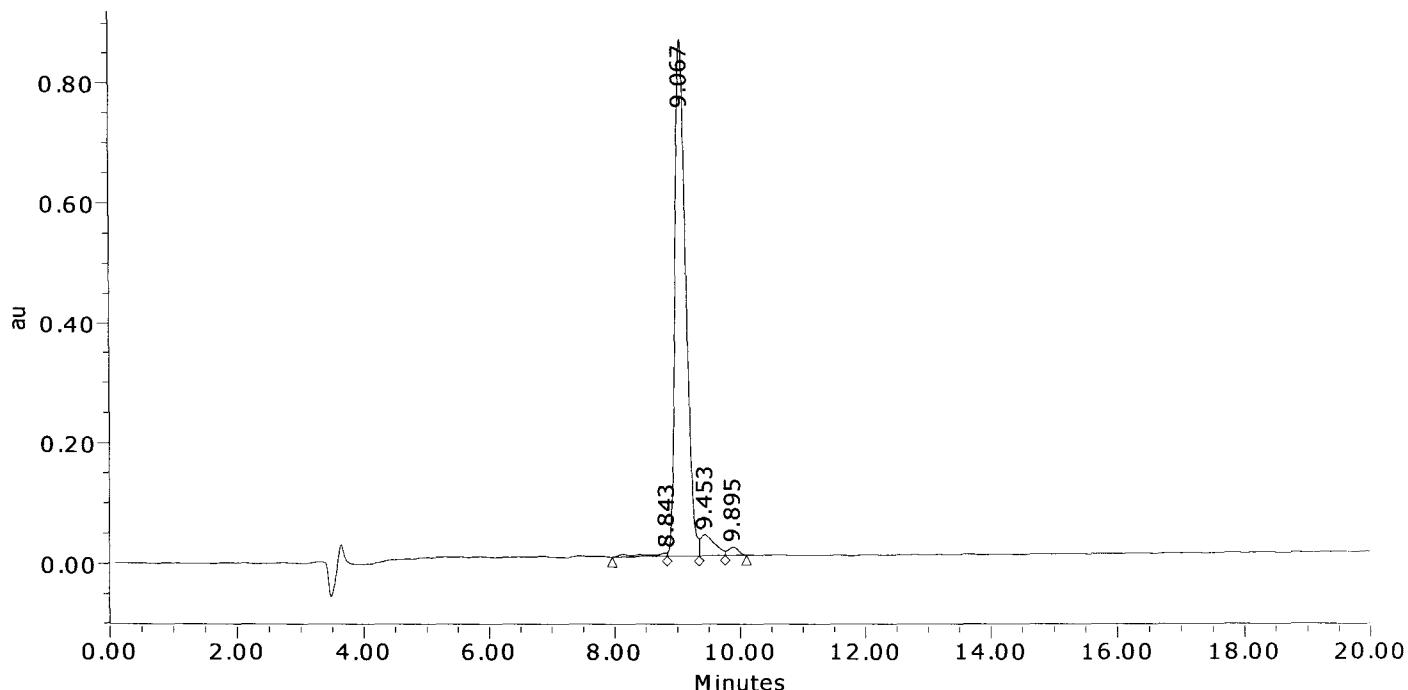
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344804/SW05054T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 9:12:31 CST  
Sample ID: 344804 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344804\_A Final\_PDA  
Date Acquired: 5/14/2008 15:01:47 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	1.2	8.843	133740	5424
2	92.5	9.067	10229648	861143
3	4.9	9.453	541625	34034
4	1.4	9.895	153291	13183
Sum	100.00		11058304	913784.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344804**

**Lot # : SW05054T**

**Chemist : Yan Li**

Date Acquired :

5/15/2008 13:38:29 CST

Expected MS :

MW: 1627.7

Acq. Method Set :

Import

Processing Method :

344804\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

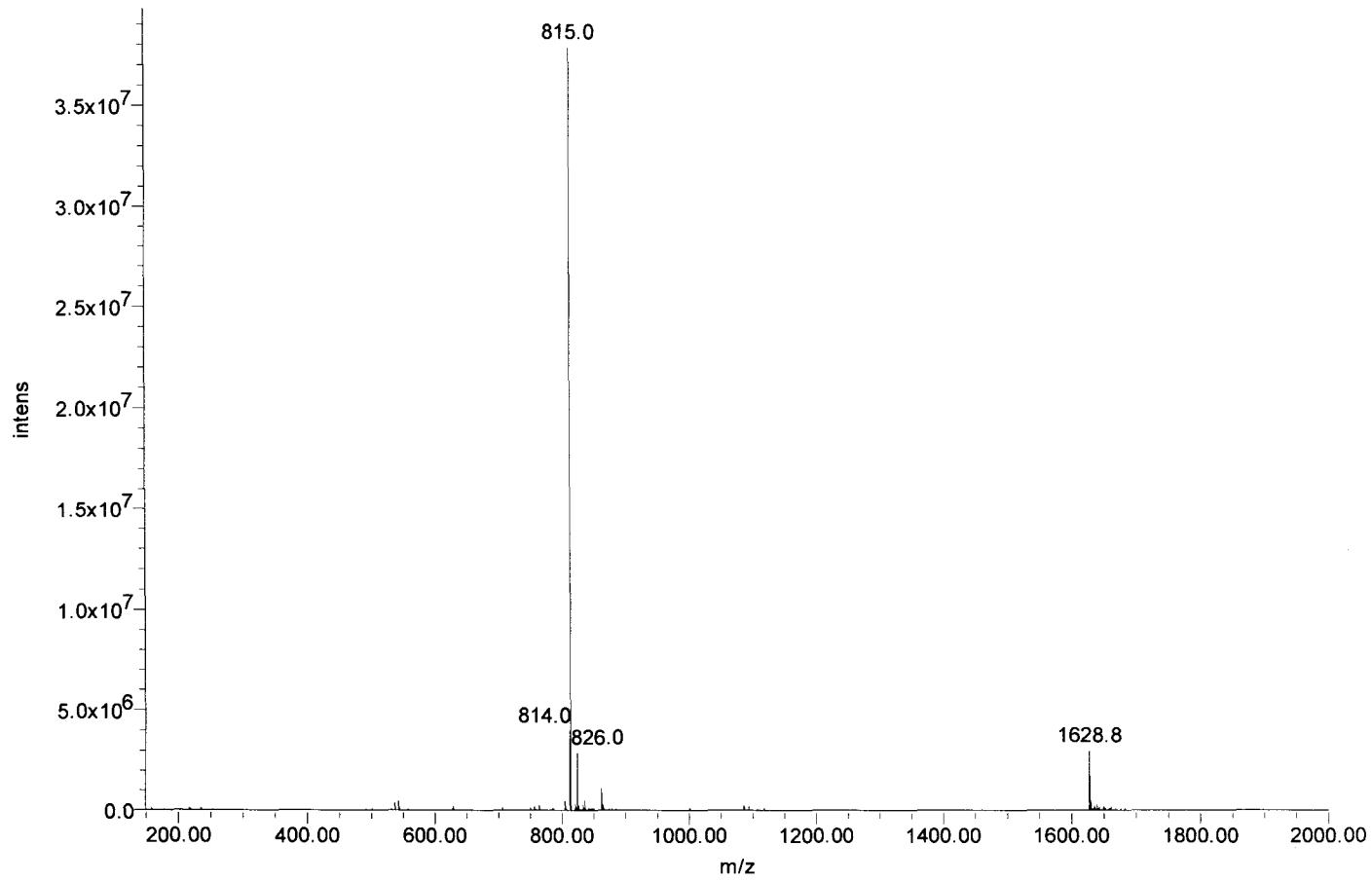
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #65  
EAPPTNPYNTPTFAI  
Cat#5774 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344805                   **Lot #:** SW05089T

**Sequence:** Glu-Ala-Pro-Pro-Thr-Asn-Pro-Tyr-Asn-Thr-Pro-Thr-Phe-Ala-Ile

**Molecular Weight:** 1632.8 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 78.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.98		Ile	1.00	1.04		Thr	3.00	2.98	
Asx	2.00	2.00		Phe	1.00	1.03		Tyr	1.00	1.07	
Glx	1.00	0.92		Pro	4.00	4.43					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/21/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

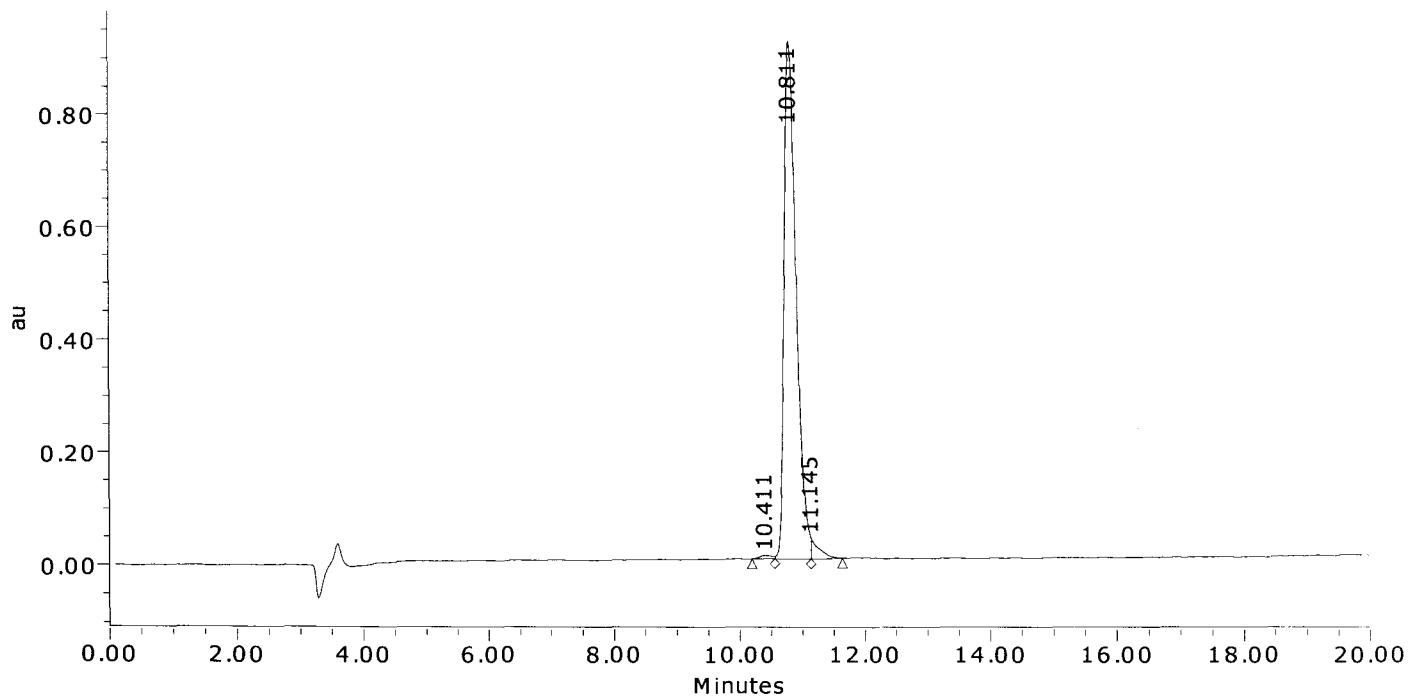
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344805/SW05089T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 11:22:25 CST  
Sample ID: 344805 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344805\_A Final\_PDA  
Date Acquired: 5/15/2008 21:42:12 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

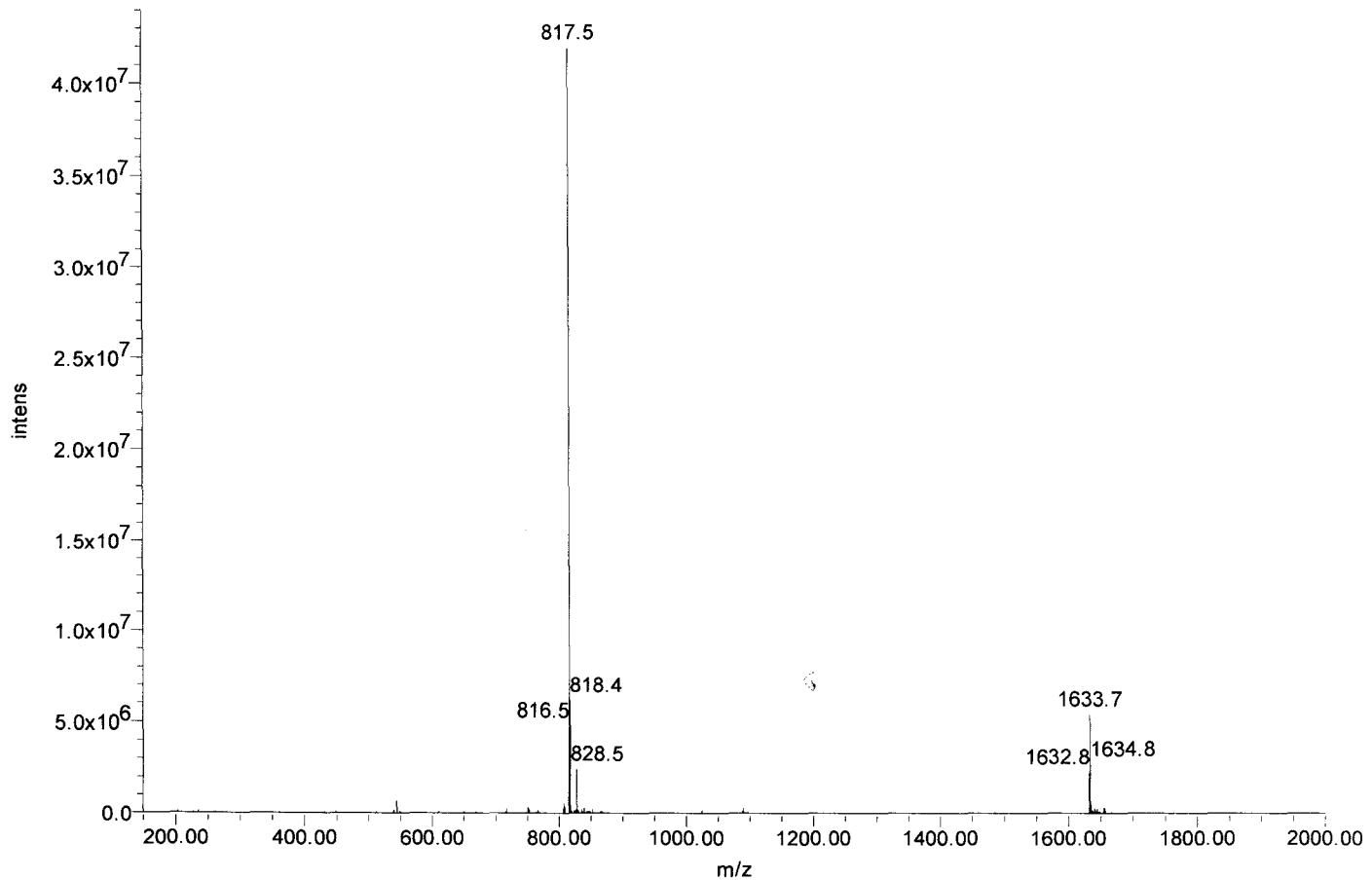


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.7	10.411	89292	6303
2	96.7	10.811	12270824	919490
3	2.6	11.145	325697	36487
<b>Sum</b>	<b>100.00</b>		<b>12685814</b>	<b>962280.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344805      **Lot # :** SW05089T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 16:32:24 CST  
Expected MS : MW: 1632.8  
Acq. Method Set : Import  
Processing Method : 344805\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #66  
TNPYNTPTFAIKKKD  
Cat#5775 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344806                   **Lot #:** SW05018T  
**Sequence:** Thr-Asn-Pro-Tyr-Asn-Thr-Pro-Thr-Phe-Ala-Ile-Lys-Lys-Lys-Asp  
**Molecular Weight:** 1738.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

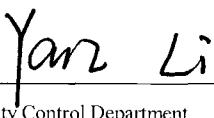
**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Lys	3.00	3.10		Thr	3.00	3.12	
Asx	3.00	3.00		Phe	1.00	1.05		Tyr	1.00	1.09	
Ile	1.00	1.02		Pro	2.00	1.86					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

  
Yan Li  
Quality Control Department

Date: 05/14/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

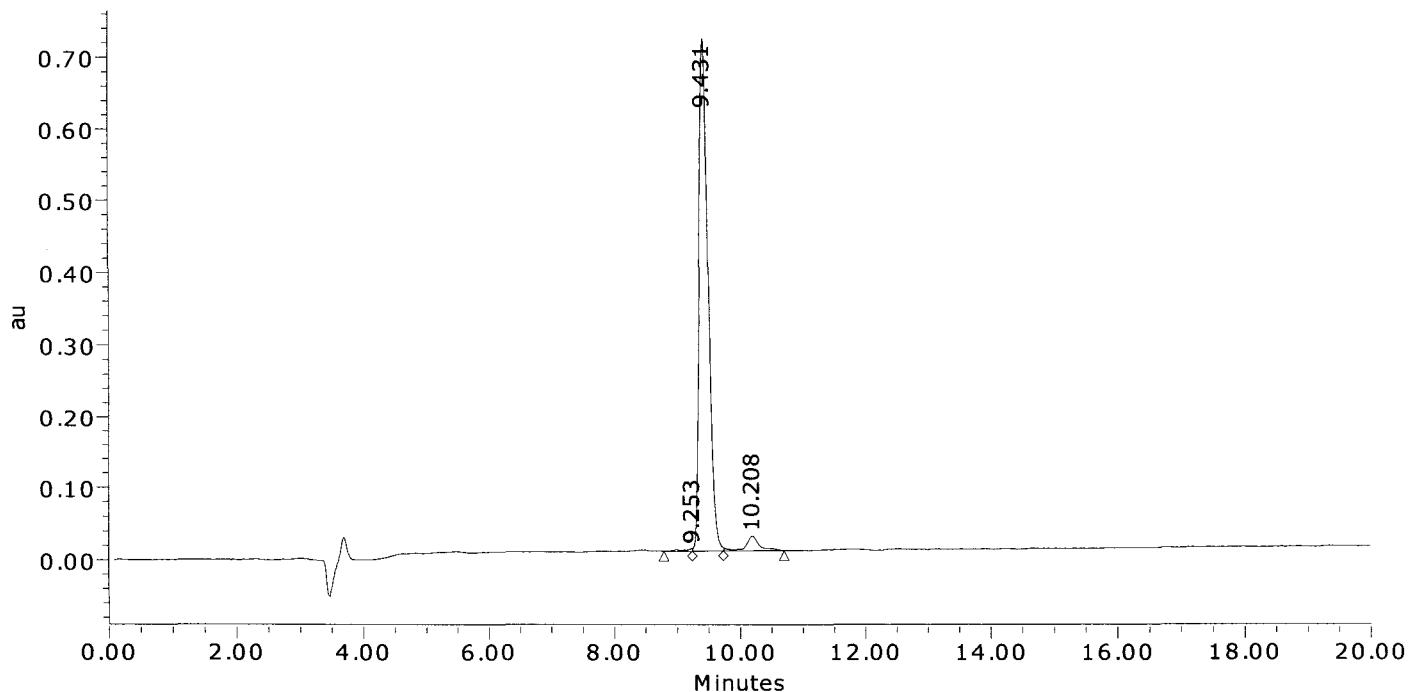
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344806/SW05018T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 10:15:52 CST  
Sample ID: 344806 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344806\_A Final\_PDA  
Date Acquired: 5/12/2008 21:48:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.4	9.253	33371	3600
2	95.4	9.431	7089940	713376
3	4.2	10.208	309995	20538
Sum	100.00		7433305	737513.7

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344806

Lot # : SW05018T

Chemist : Yan Li

Date Acquired :

5/13/2008 13:21:26 CST

Expected MS :

MW: 1738.0

Acq. Method Set :

Import

Processing Method :

344806\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

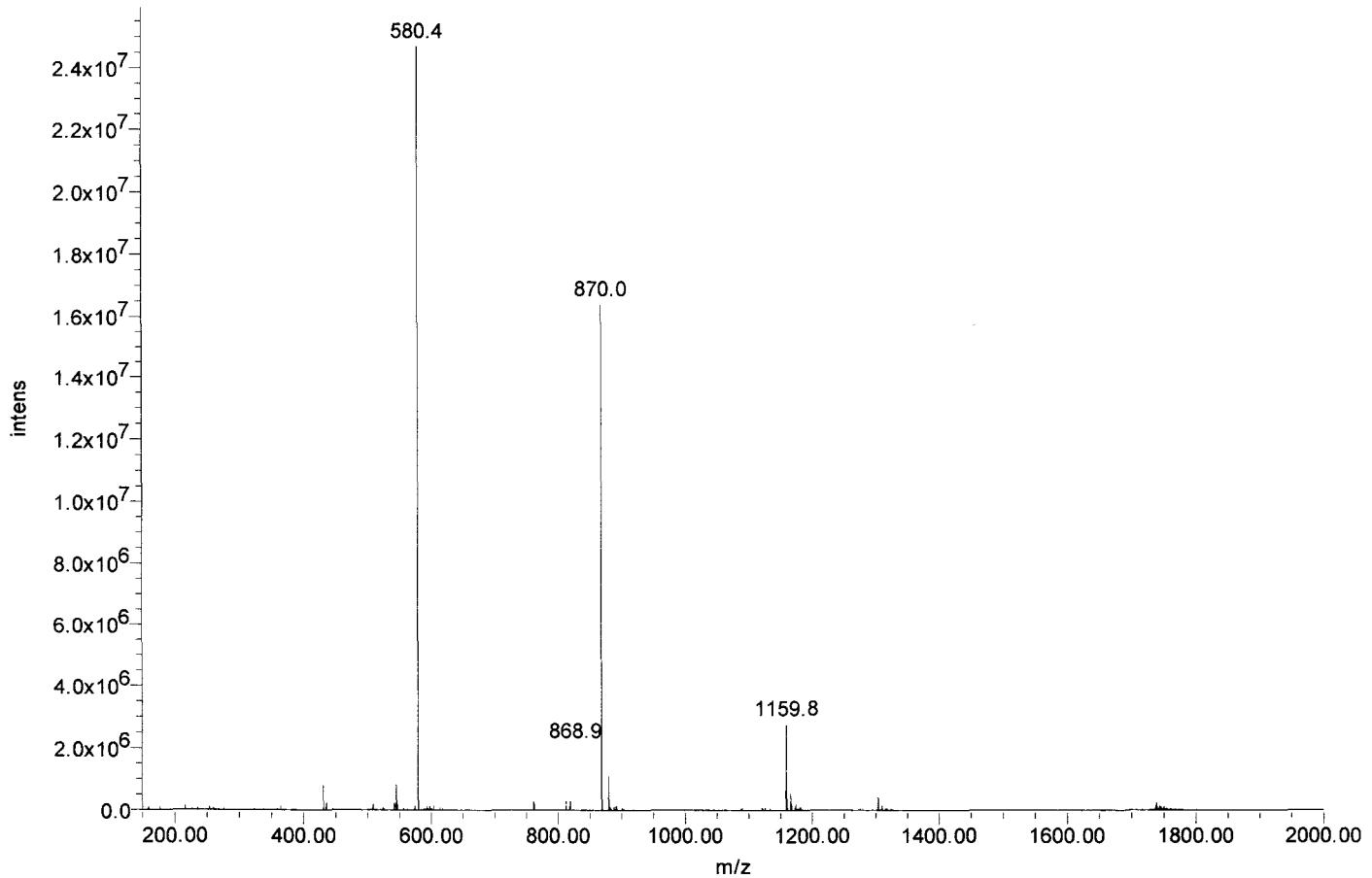
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #67  
NTPFAIKKKDKKNKW  
Cat#5776 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00	Lys	5.00	4.83	Thr	2.00	2.05
Asx	3.00	2.95	Phe	1.00	0.97	Trp	1.00	0.00
Ile	1.00	0.95	Pro	1.00	1.08			*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Jan Li **Date:** 05/20/08  
Quality Control Department

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel. 0120-715-0011 Fax. 0120-715-0050

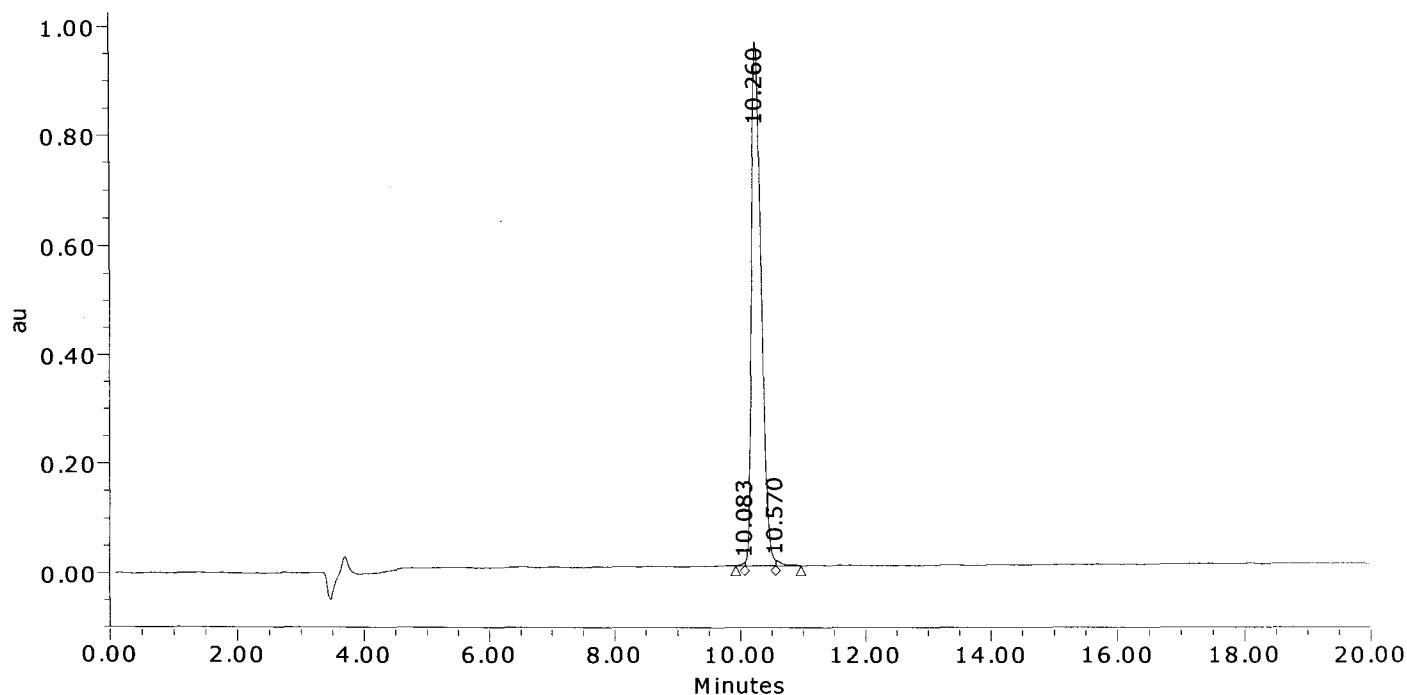
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344807/SW05072T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 11:51:45 CST  
Sample ID: 344807 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344807\_A Final\_PDA  
Date Acquired: 5/15/2008 0:45:01 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.2	10.083	20792	6625
2	99.0	10.260	10293617	959889
3	0.8	10.570	83042	11176
Sum	100.00		10397451	977689.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344807

Lot # : SW05072T

Chemist : Yan Li

Date Acquired :

5/15/2008 13:28:00 CST

Expected MS :

MW: 1819.2

Acq. Method Set :

Import

Processing Method :

344807\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

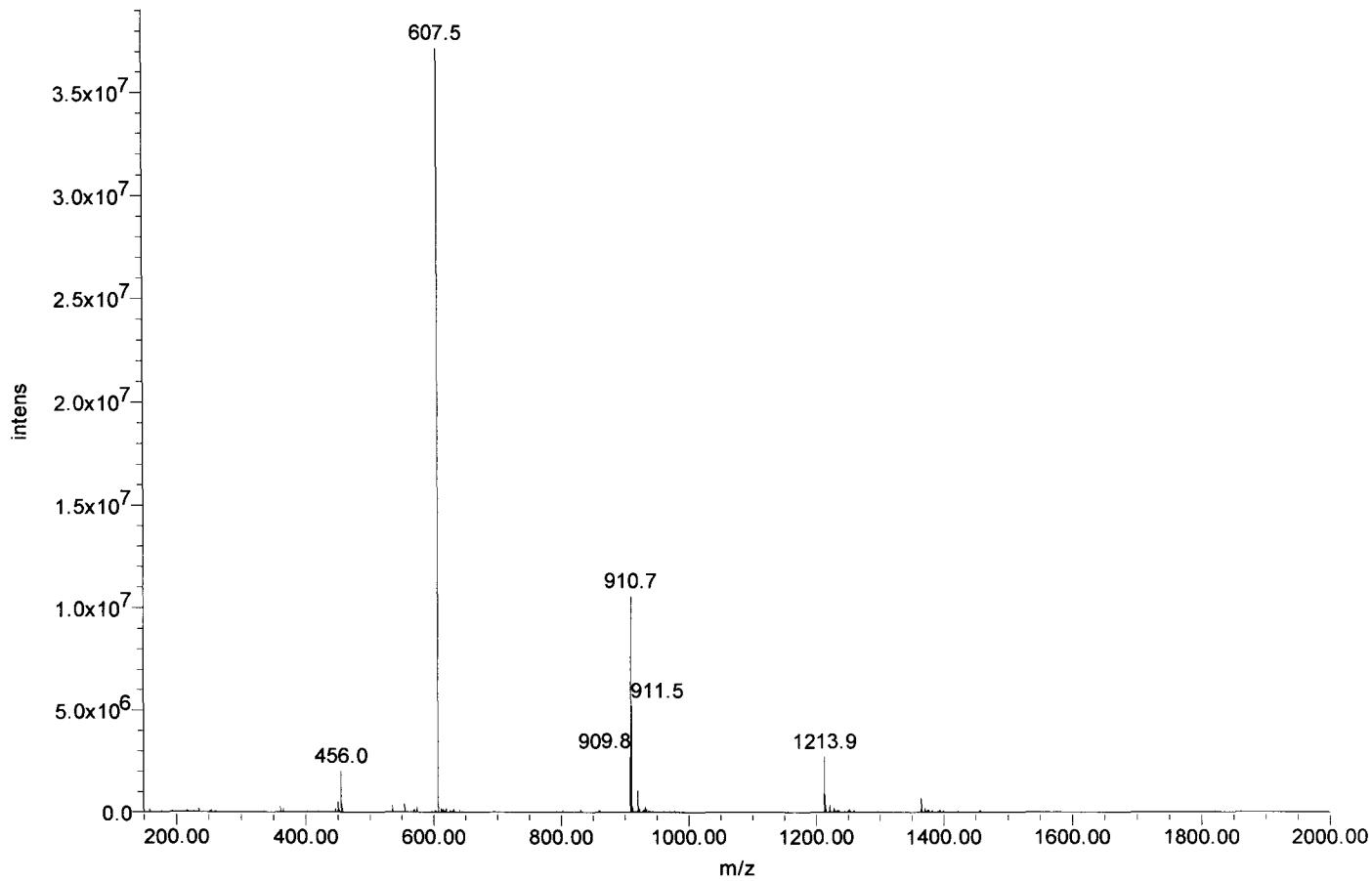
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #68  
FAIKKKDKNKWRMII  
Cat#5777 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344808                   **Lot #:** SW05055T  
**Sequence:** Phe-Ala-Ile-Lys-Lys-Lys-Asp-Lys-Asn-Lys-Trp-Arg-Met-Leu-Ile  
**Molecular Weight:** 1919.4 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 65.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.98		Ile	2.00	1.95	Met	1.00	1.02
Arg	1.00	1.00		Leu	1.00	1.13	Phe	1.00	0.99
Asx	2.00	2.03		Lys	5.00	5.00	Trp	1.00	0.00 *1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
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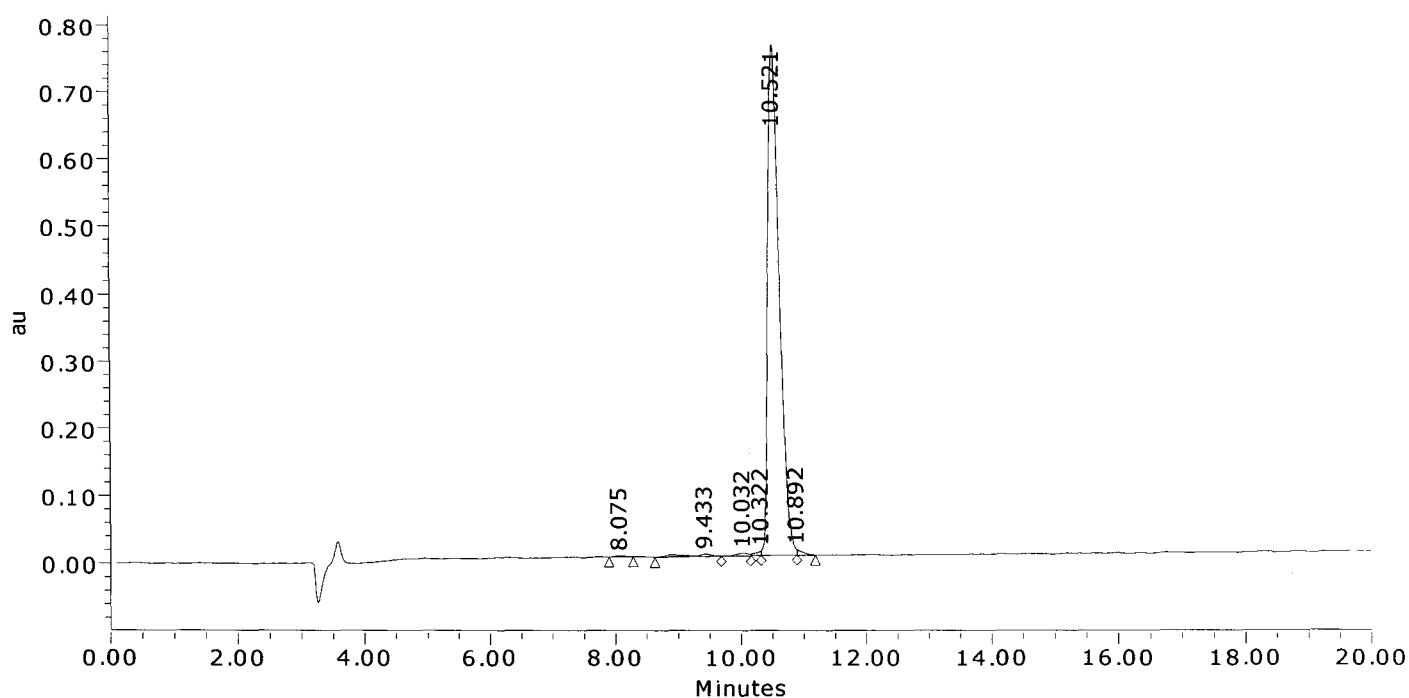
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344808/SW05055T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 13:01:51 CST  
Sample ID: 344808 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344808\_A Final\_PDA  
Date Acquired: 5/14/2008 11:04:32 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

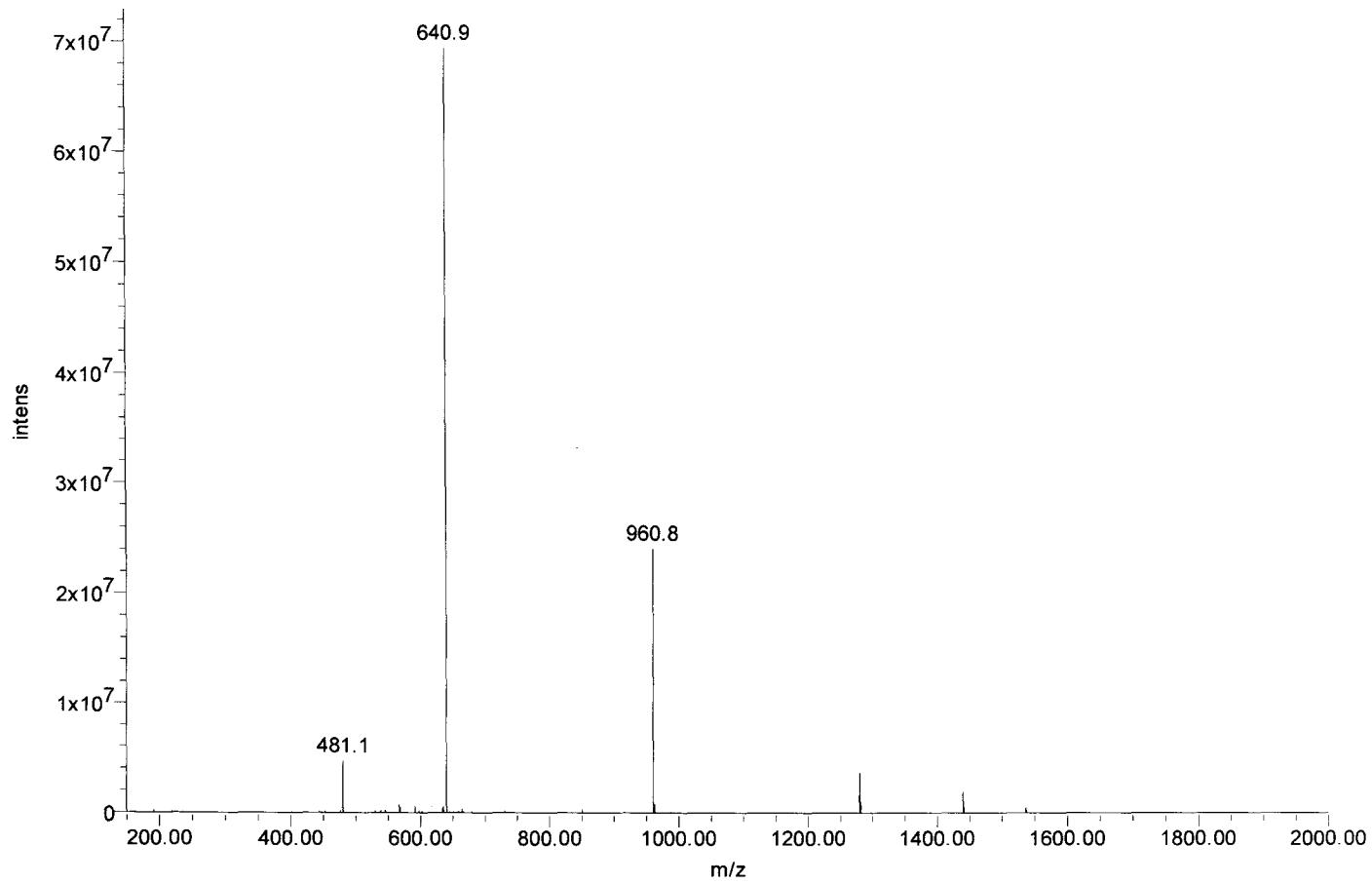


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.2	8.075	21540	1909
2	1.1	9.433	110711	3469
3	0.6	10.032	64394	4894
4	0.4	10.322	39549	6993
5	97.1	10.521	9680270	759888
6	0.6	10.892	55164	8314
Sum	100.00		9971628	785466.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344808      **Lot # :** SW05055T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 11:04:32 CST  
Expected MS : MW: 1919.4  
Acq. Method Set : Import  
Processing Method : 344808\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #69  
KKDKNKWRMLIDFRE  
Cat#5778 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344809                   **Lot #:** SW05047T

**Sequence:** Lys-Lys-Asp-Lys-Asn-Lys-Trp-Arg-Met-Leu-Ile-Asp-Phe-Arg-Glu

**Molecular Weight:** 2007.4 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.2%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 64.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00		Ile	1.00	0.98	Met	1.00	1.02
Asx	3.00	3.05		Leu	1.00	1.13	Phe	1.00	1.00
Glx	1.00	0.88		Lys	4.00	3.98	Trp	1.00	0.00 *1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

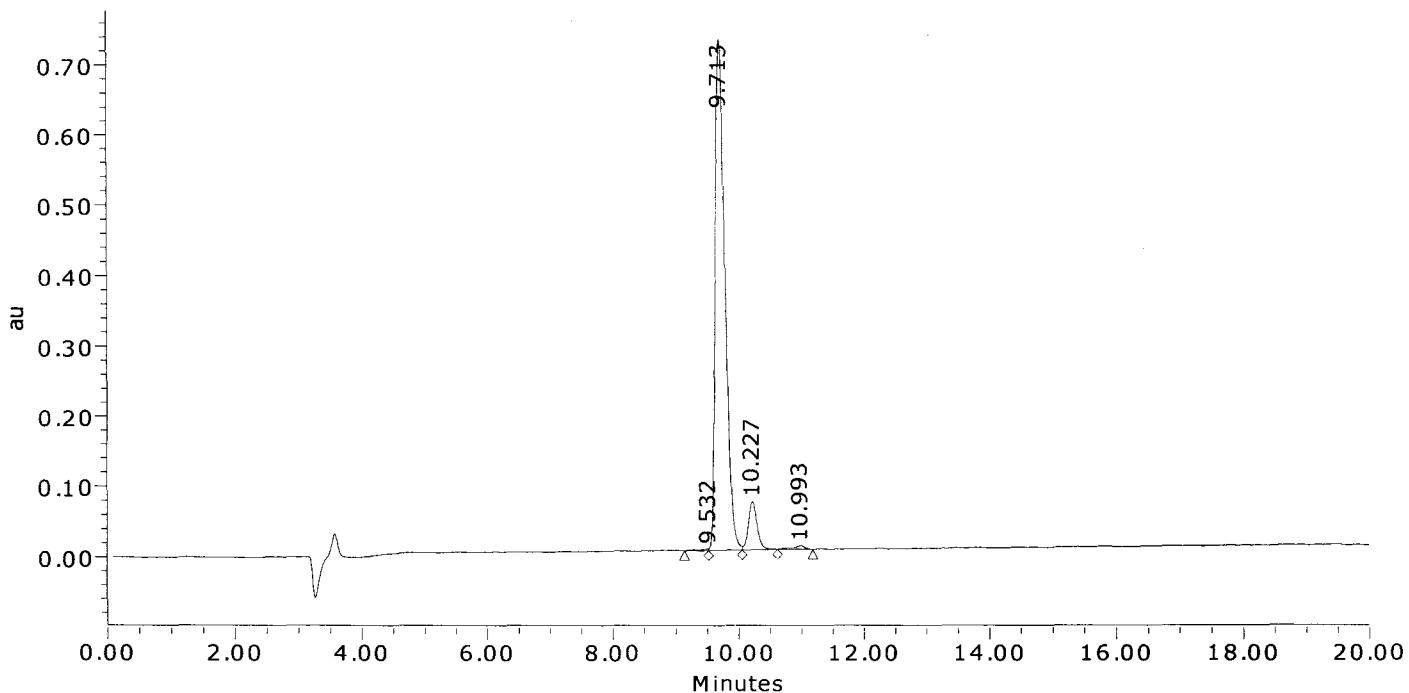
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344809/SW05047T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/14/2008 9:50:17 CST  
Sample ID: 344809 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344809\_A Final\_PDA  
Date Acquired: 5/13/2008 18:24:27 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.3	9.532	23464	2469
2	91.2	9.713	7773961	727542
3	7.7	10.227	654545	68123
4	0.8	10.993	69379	5149
Sum	100.00		8521349	803282.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344809**

**Lot # : SW05047T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 18:24:27 CST

Expected MS :

MW: 2007.4

Acq. Method Set :

Import

Processing Method :

344809\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

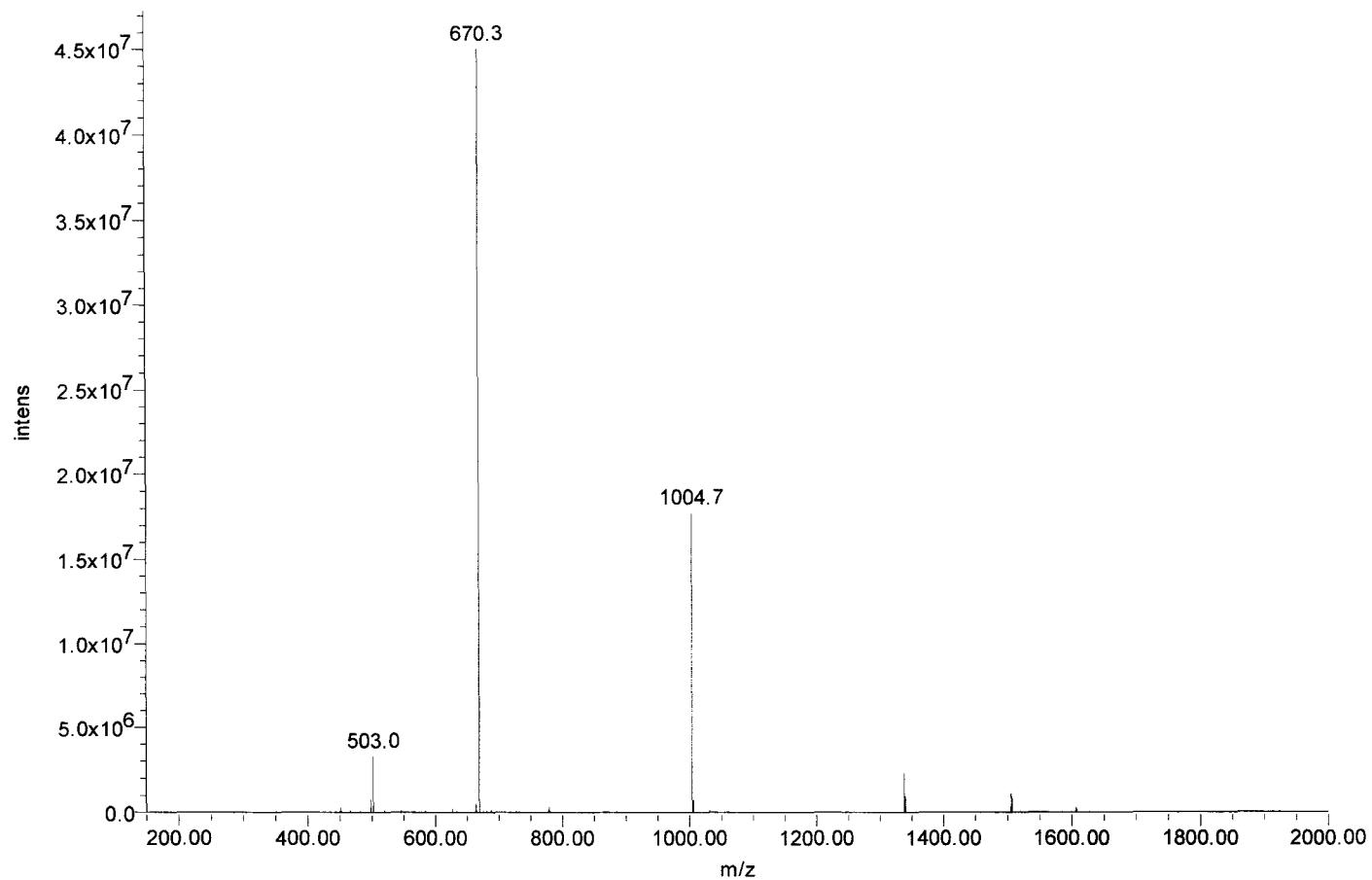
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #70  
NKWRMLIDFRELNRV  
Cat#5779 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344810                   **Lot #:** SW05006T  
**Sequence:** Asn-Lys-Trp-Arg-Met-Leu-Ile-Asp-Phe-Arg-Glu-Leu-Asn-Arg-Val  
**Molecular Weight:** 1990.4 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 75.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	3.00	3.00		Leu	2.00	2.06	Phe	1.00	1.00
Asx	3.00	3.04		Lys	1.00	0.99	Trp	1.00	0.00
Glx	1.00	0.97		Met	1.00	1.02	Val	1.00	0.98
Ile	1.00	0.95							*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li  
Quality Control Department

Date: 05/15/08

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Tel: 760-597-8820 Fax: 760-597-8816

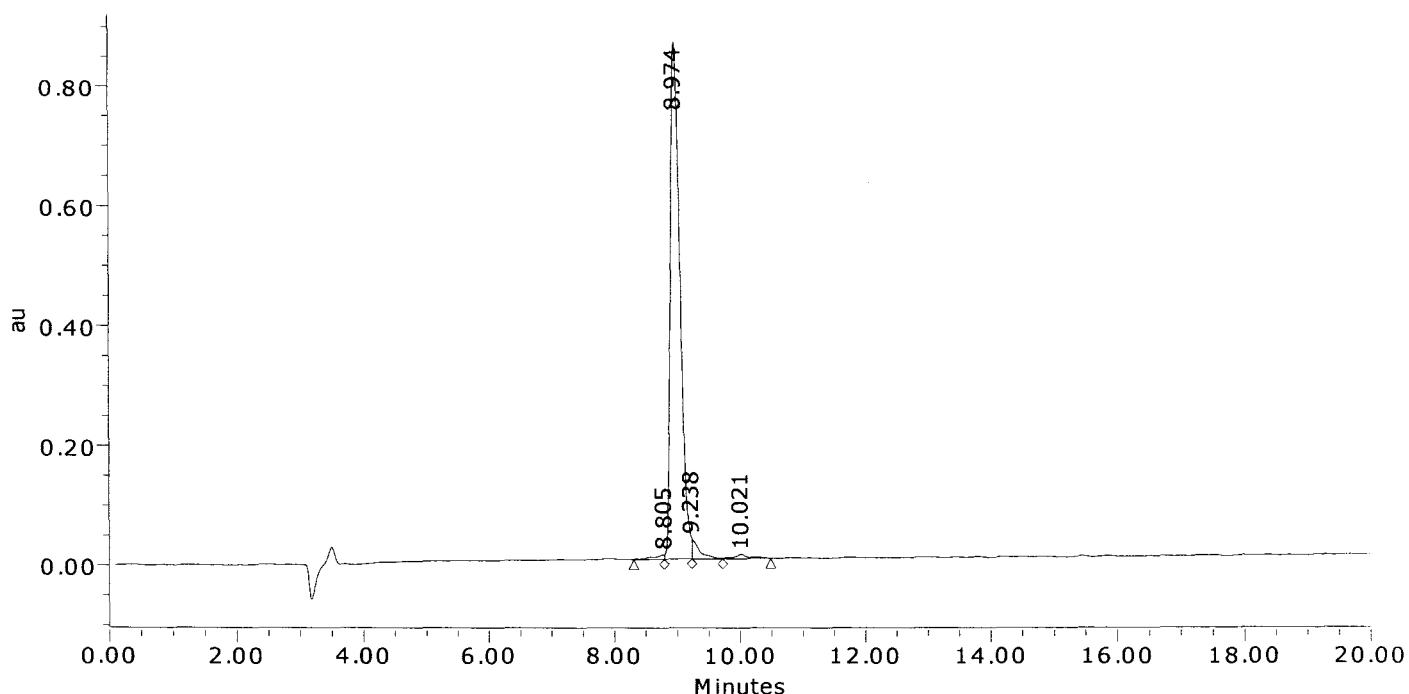
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344810/SW05006T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 11:30:01 CST  
Sample ID: 344810 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344810\_A Final\_PDA  
Date Acquired: 5/12/2008 10:27:46 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.9	8.805	88194	8033
2	94.9	8.974	9224002	864158
3	2.9	9.238	285648	34501
4	1.3	10.021	126388	7728
Sum	100.00		9724233	914418.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344810**

**Lot # : SW05006T**

**Chemist : Yan Li**

Date Acquired :

5/12/2008 10:27:46 CST

Expected MS :

MW: 1990.4

Acq. Method Set :

Import

Processing Method :

344810\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

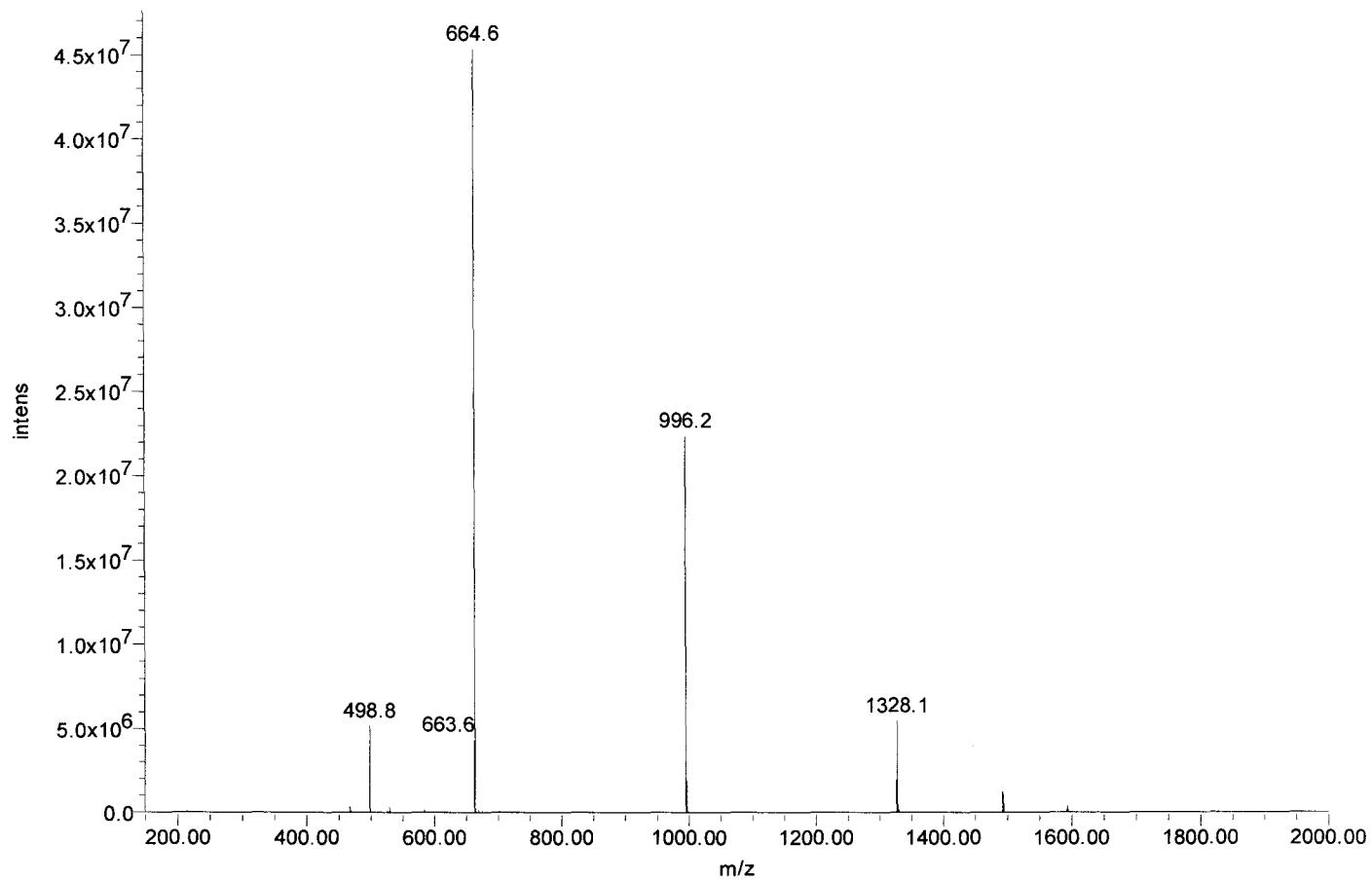
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #71  
MLJDFREI.NRVTQDF  
Cat#5780 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344811                   **Lot #:** SW05082T  
**Sequence:** Met-Leu-Ile-Asp-Phe-Arg-Glu-Leu-Asn-Arg-Val-Thr-Gln-Asp-Phe  
**Molecular Weight:** 1897.2 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 82.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/15/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.03		Ile	1.00	0.97		Phe	2.00	2.02	
Asx	3.00	3.00		Leu	2.00	2.08		Thr	1.00	1.04	
Glx	2.00	1.92		Met	1.00	1.03		Val	1.00	1.02	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/20/08  
Quality Control Department

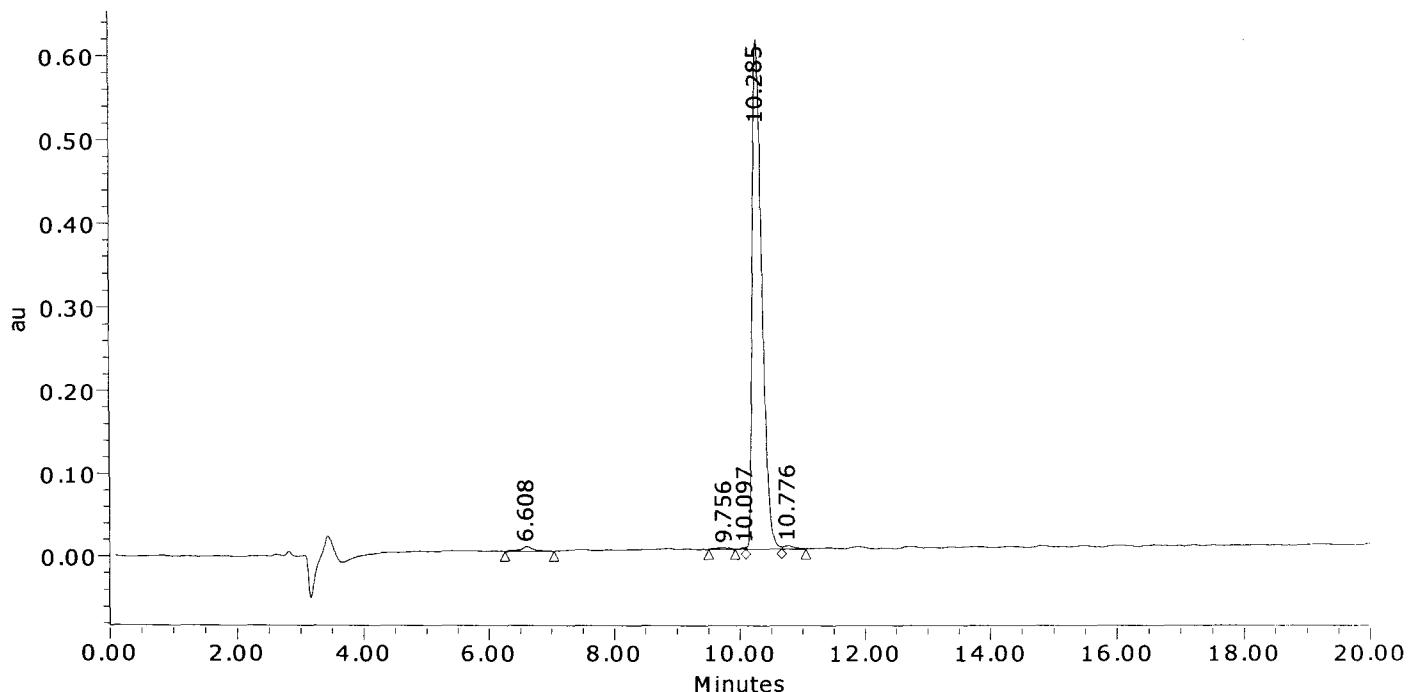
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344811/SW05082T

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data
Channel Name:	PDA 215.0 nm
Sample ID:	344811
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000
Date Acquired:	5/15/2008 14:01:24 CST
Acq. Method Set:	Import
Run Time:	25.0 Minutes
Date Processed:	5/16/2008 9:36:50 CST
Time Calculated:	Result # 1
Processing Method:	344811_A Final_PDA
Run Mode:	Analysis
Peak Measurement:	Peak Area
Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.1	6.608	70398	5508
2	0.3	9.756	23071	1489
3	0.1	10.097	9718	2237
4	97.8	10.285	6497733	611127
5	0.7	10.776	43481	3947
Sum	100.00		6644401	624309.4

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344811

Lot # : SW05082T

Chemist : Yan Li

Date Acquired :

5/15/2008 17:40:59 CST

Expected MS :

MW: 1897.2

Acq. Method Set :

Import

Processing Method :

344811\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

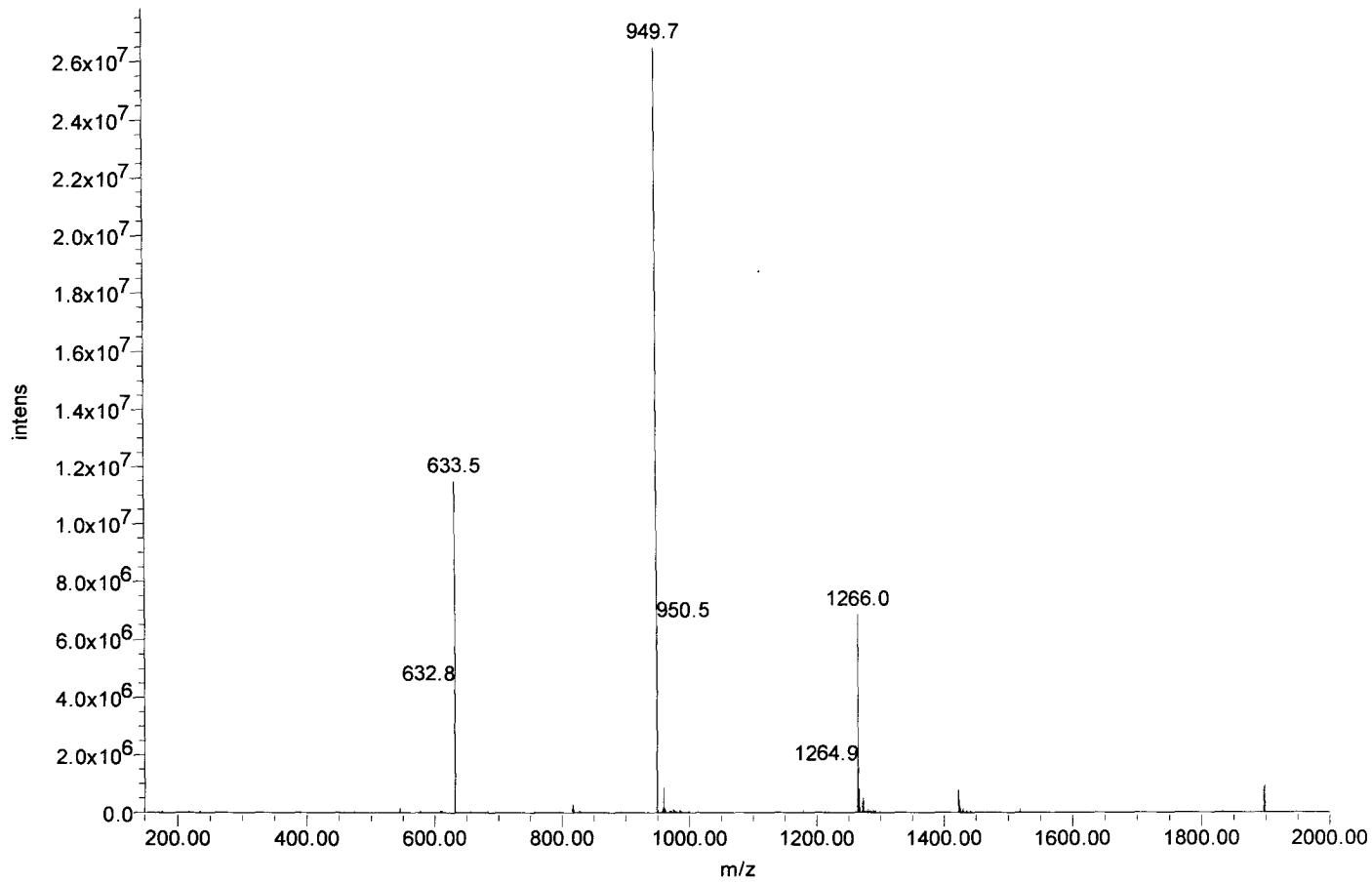
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #72  
FRELNRVTQDFTEVQ  
Cat#5781 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344812                   **Lot #:** SW05067T

**Sequence:** Phe-Arg-Glu-Leu-Asn-Arg-Val-Thr-Gln-Asp-Phe-Thr-Glu-Val-Gln

**Molecular Weight:** 1882.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 83.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	1.98		Leu	1.00	1.15		Thr	2.00	2.00	
Asx	2.00	1.93		Phe	2.00	1.98		Val	2.00	1.97	
Glx	4.00	3.78									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Yanz Li

Date: 05/16/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

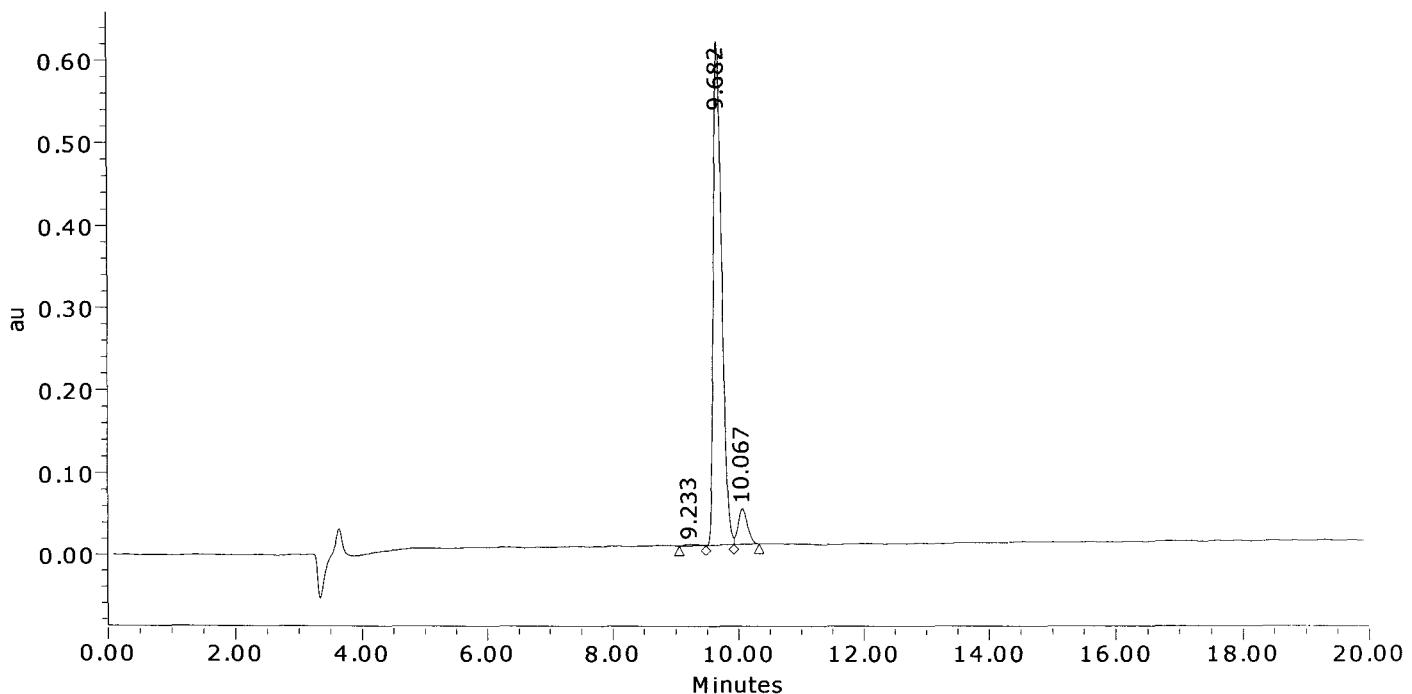
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344812/SW05067T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 12:21:57 CST  
Sample ID: 344812 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344812\_A Final\_PDA  
Date Acquired: 5/14/2008 22:16:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.5	9.233	31497	2046
2	91.9	9.682	5664417	612316
3	7.5	10.067	464438	44493
<b>Sum</b>	<b>100.00</b>		<b>6160352</b>	<b>658854.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344812

Lot # : SW05067T

Chemist : Yan Li

Date Acquired :

5/15/2008 13:29:53 CST

Expected MS :

MW: 1882.1

Acq. Method Set :

Import

Processing Method :

344812\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

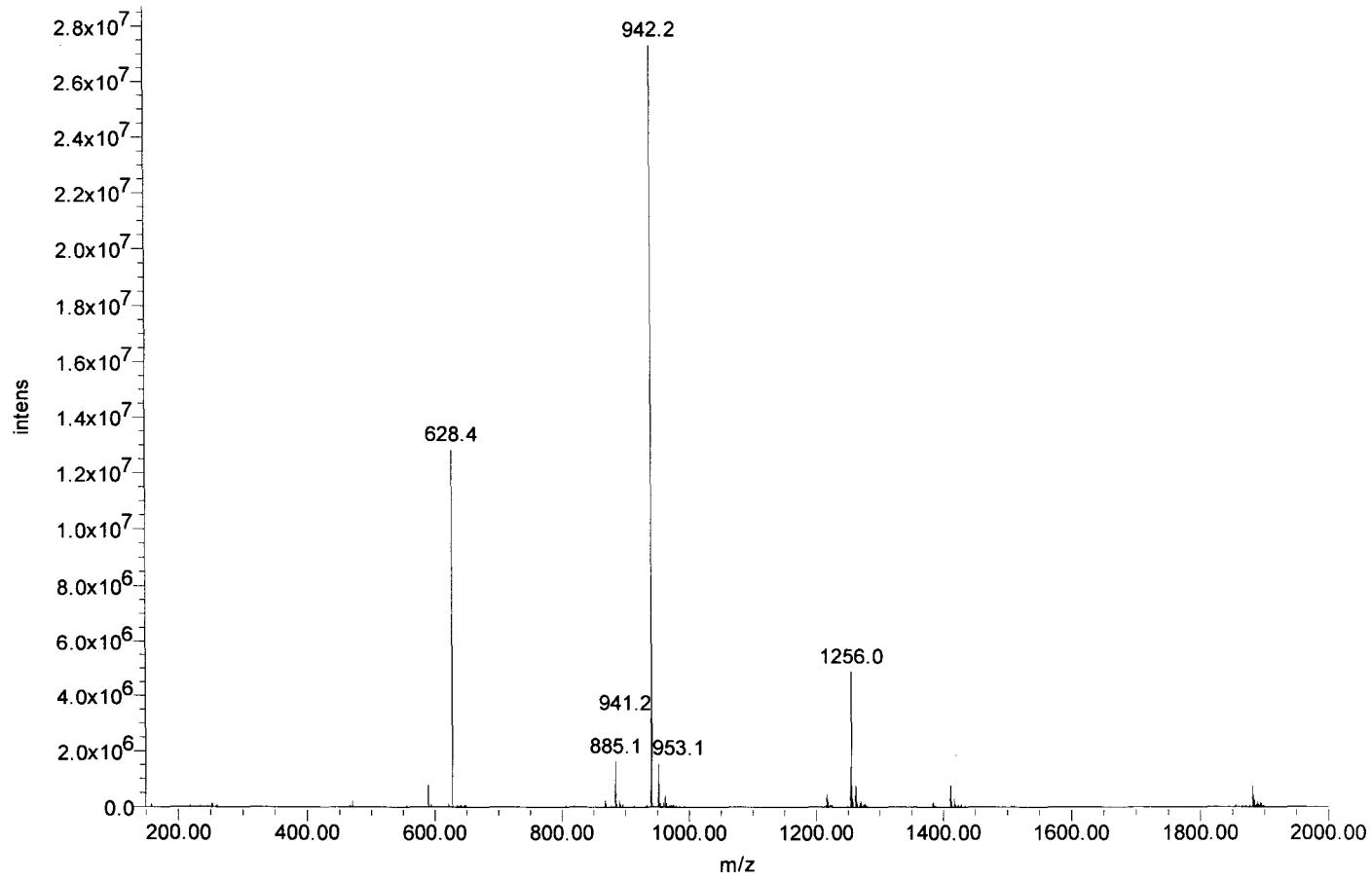
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #73  
NRVTQDFTEVQLGIP  
Cat#5782 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344813                   **Lot #:** SW05094T  
**Sequence:** Asn-Arg-Val-Thr-Gln-Asp-Phe-Thr-Glu-Val-Gln-Leu-Gly-Ile-Pro  
**Molecular Weight:** 1716.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.0%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.89		Ile	1.00	1.00		Pro	1.00	0.94	
Asx	2.00	1.74		Leu	1.00	1.15		Thr	2.00	1.74	
Glx	3.00	2.61		Phe	1.00	0.90		Val	2.00	1.82	
Gly	1.00	1.05									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/21/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

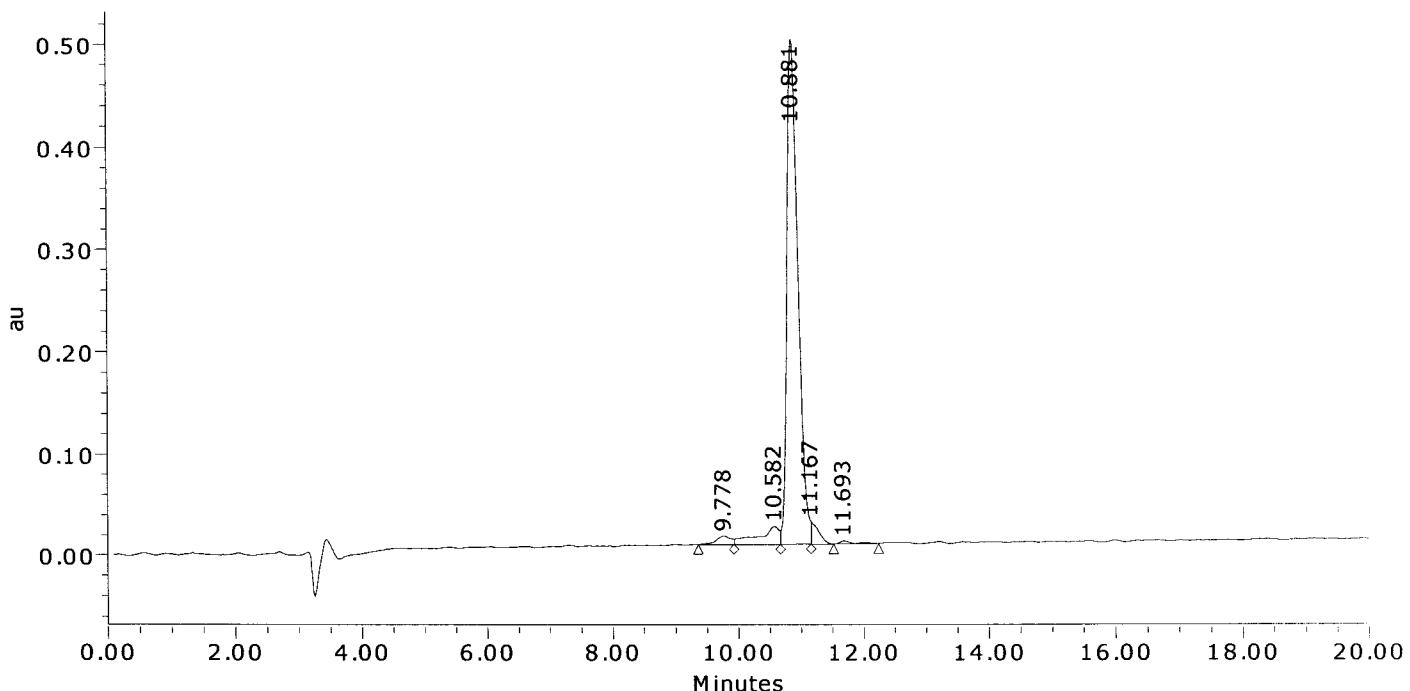
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344813/SW05094T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data
Channel Name:	PDA 215.0 nm
Sample ID:	344813
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000
Date Acquired:	5/16/2008 15:54:16 CST
Acq. Method Set:	Import
Run Time:	25.0 Minutes
Date Processed:	5/19/2008 14:12:00 CST
Time Calculated:	Result # 1
Processing Method:	344813_A Final_PDA
Run Mode:	Analysis
Peak Measurement:	Peak Area
Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	2.0	9.778	135395	8267
2	6.0	10.582	409607	17808
3	88.6	10.881	6061399	493949
4	2.8	11.167	192109	22621
5	0.6	11.693	43130	2963
<b>Sum</b>	<b>100.00</b>		<b>6841641</b>	<b>545607.9</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344813**

**Lot # : SW05094T**

**Chemist : Yan Li**

Date Acquired :

5/16/2008 16:43:51 CST

Expected MS :

MW: 1716.9

Acq. Method Set :

Import

Processing Method :

344813\_A Final\_MS

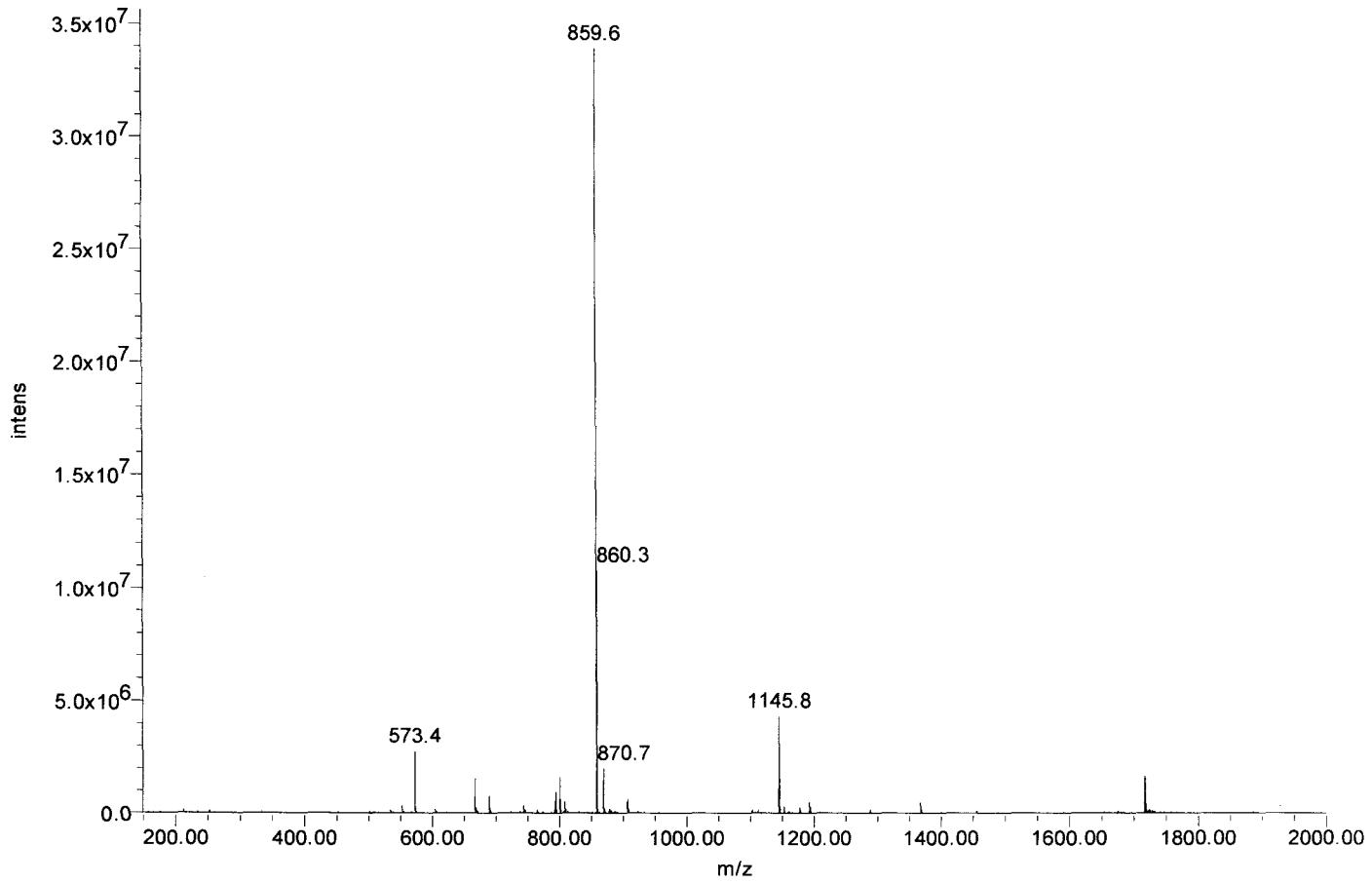
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time : 1.0 Minutes

Flow rate : 1.0 mL/min

Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #74  
QDFTEVQLGIPHPAG  
Cat#5783 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344814                   **Lot #:** SW05023T  
**Sequence:** Gln-Asp-Phe-Thr-Glu-Val-Gln-Leu-Gly-Ile-Pro-His-Pro-Ala-Gly  
**Molecular Weight:** 1608.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		His	1.00	1.01		Pro	2.00	1.89	
Asx	1.00	0.97		Ile	1.00	0.98		Thr	1.00	0.98	
Glx	3.00	2.80		Leu	1.00	1.11		Val	1.00	1.00	
Gly	2.00	1.93		Phe	1.00	0.97					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/15/08  
Quality Control Department

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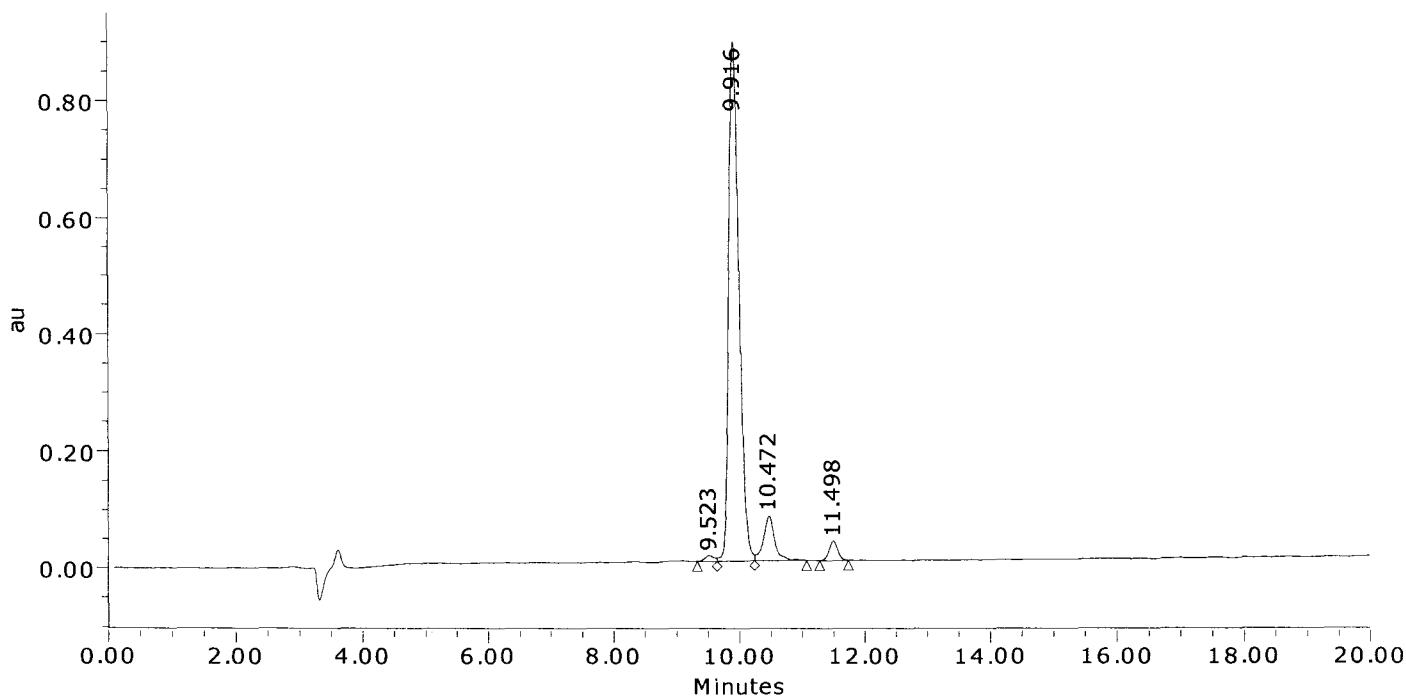
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344814/SW05023T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/13/2008 9:26:10 CST
Sample ID:	344814	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344814_A Final_PDA
Date Acquired:	5/12/2008 18:37:46 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.9	9.523	103399	10136
2	88.1	9.916	10096075	888226
3	8.3	10.472	951931	76885
4	2.7	11.498	313769	33008
<b>Sum</b>	<b>100.00</b>		<b>11465174</b>	<b>1008255.2</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344814

Lot # : SW05023T

Chemist : Yan Li

Date Acquired :

5/12/2008 18:37:46 CST

Expected MS :

MW: 1608.8

Acq. Method Set :

Import

Processing Method :

344814\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

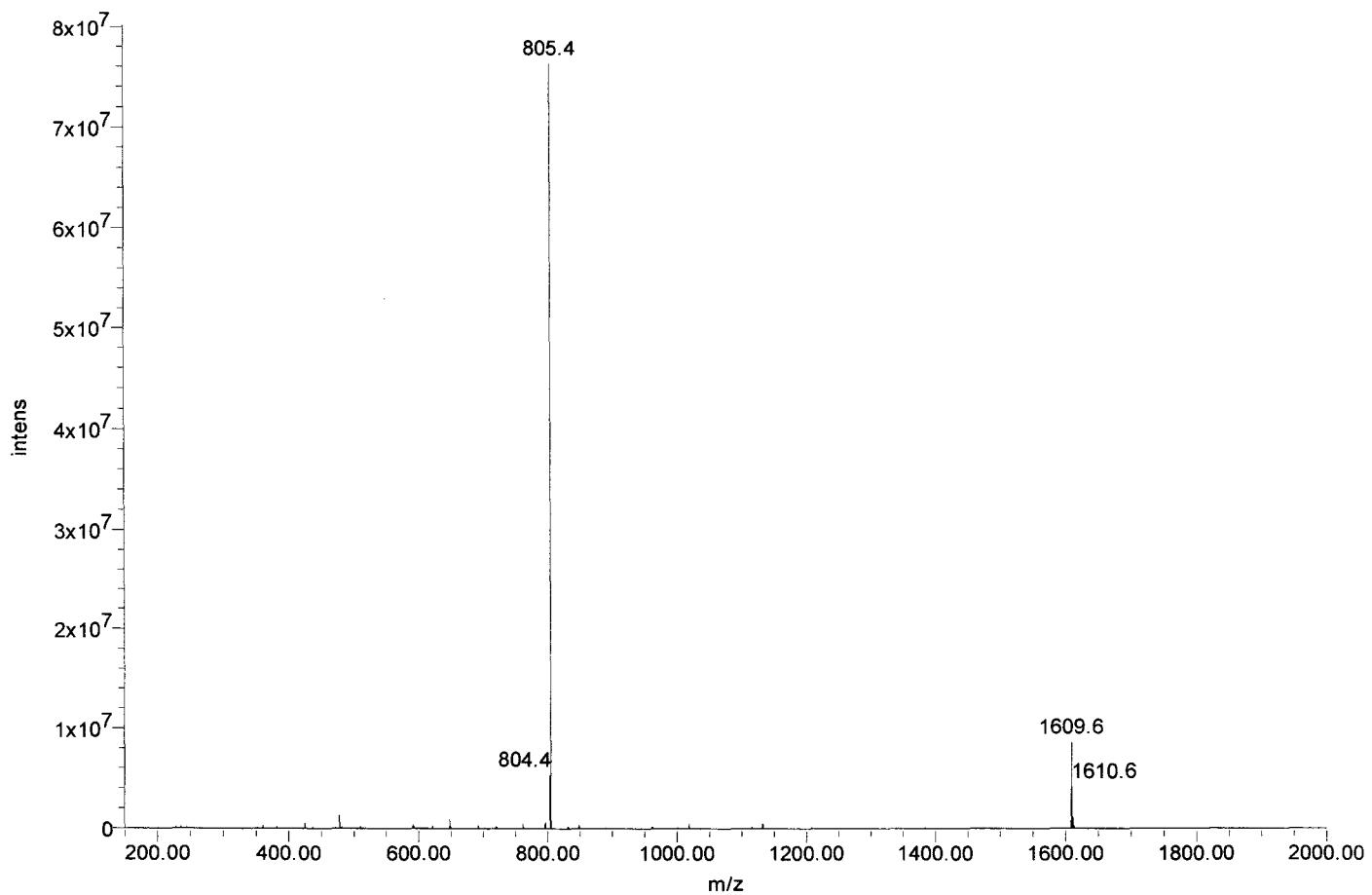
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #75  
EVQLGIPHPAGLAKR  
Cat#5784 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344815                   **Lot #:** SW05071T  
**Sequence:** Glu-Val-Gln-Leu-Gly-Ile-Pro-His-Pro-Ala-Gly-Leu-Ala-Lys-Arg  
**Molecular Weight:** 1585.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		His	1.00	0.98		Lys	1.00	0.96	
Arg	1.00	0.96		Ile	1.00	0.96		Pro	2.00	2.04	
Glx	2.00	2.22		Leu	2.00	1.98		Val	1.00	1.02	
Gly	2.00	1.95									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yon Z Li  
Quality Control Department

Date: 05/20/08

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Moriya, Ibaraki 302-0104 Japan  
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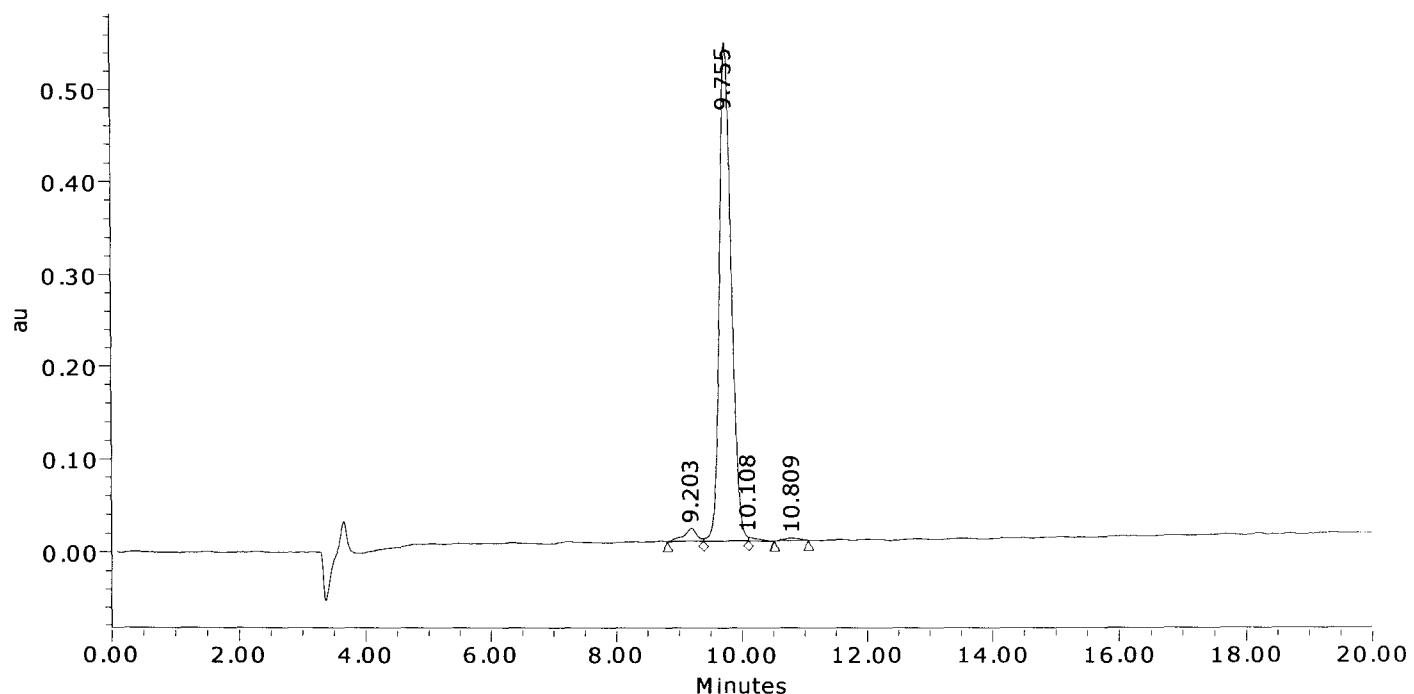
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344815/SW05071T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 9:35:29 CST  
Sample ID: 344815 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344815\_A Final\_PDA  
Date Acquired: 5/14/2008 22:53:38 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

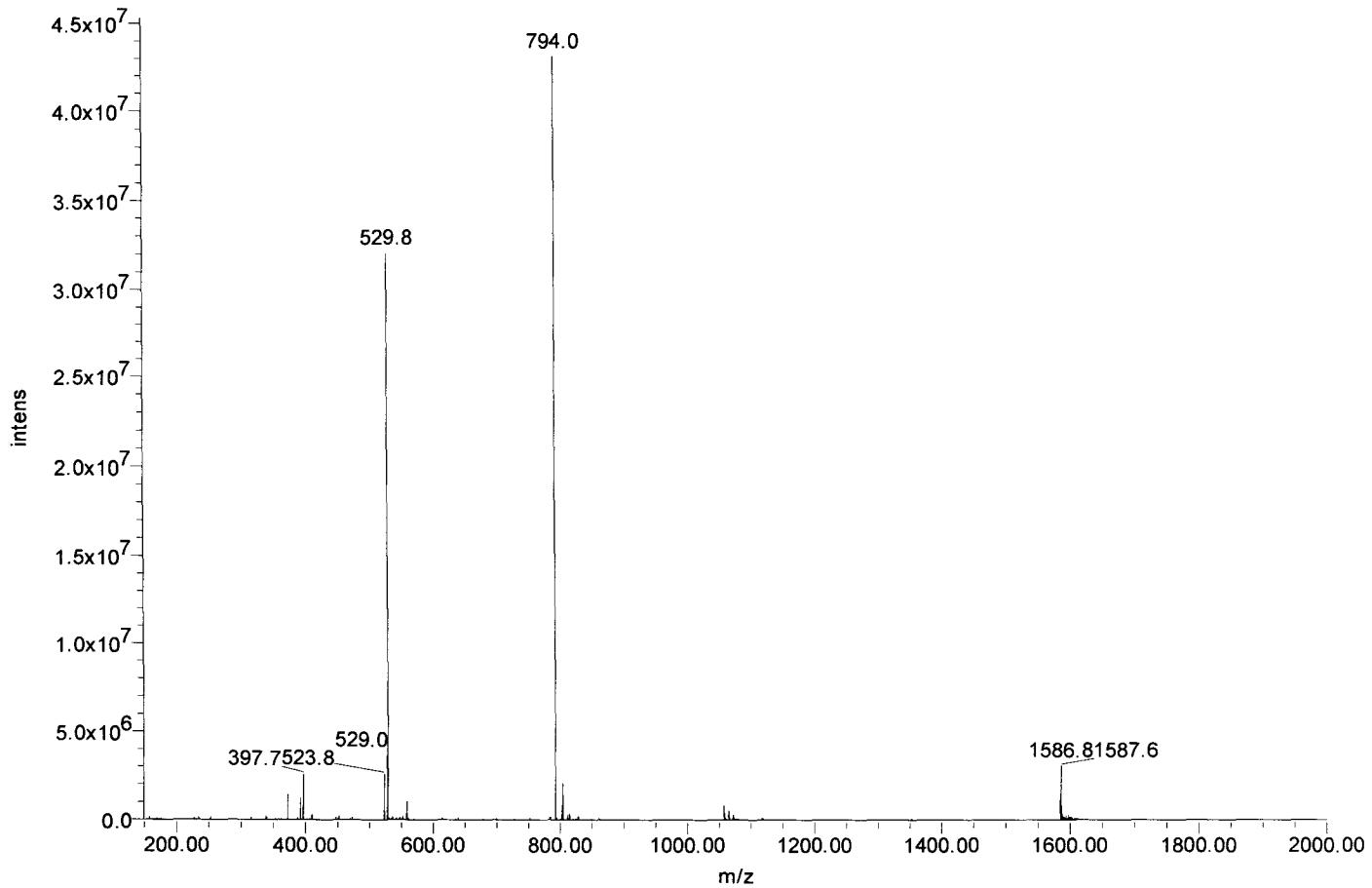


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.6	9.203	193654	13668
2	96.2	9.755	7054674	540645
3	0.6	10.108	40465	4026
4	0.6	10.809	43241	2616
Sum	100.00		7332034	560953.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344815      **Lot # :** SW05071T      **Chemist :** Yan Li

Date Acquired : 5/15/2008 13:40:23 CST  
Expected MS: MW: 1585.9  
Acq. Method Set : Import  
Processing Method : 344815\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #76  
GIPHPAGLAKRKIT  
Cat#5785 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344816                   **Lot #:** SW05083T  
**Sequence:** Gly-Ile-Pro-His-Pro-Ala-Gly-Leu-Ala-Lys-Arg-Lys-Arg-Ile-Thr  
**Molecular Weight:** 1615.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 98.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 69.0%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/15/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		His	1.00	0.98		Lys	2.00	1.97	
Arg	2.00	1.97		Ile	2.00	1.87		Pro	2.00	2.10	
Gly	2.00	1.97		Leu	1.00	1.02		Thr	1.00	0.99	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yanz Li'.

Date: 05/20/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

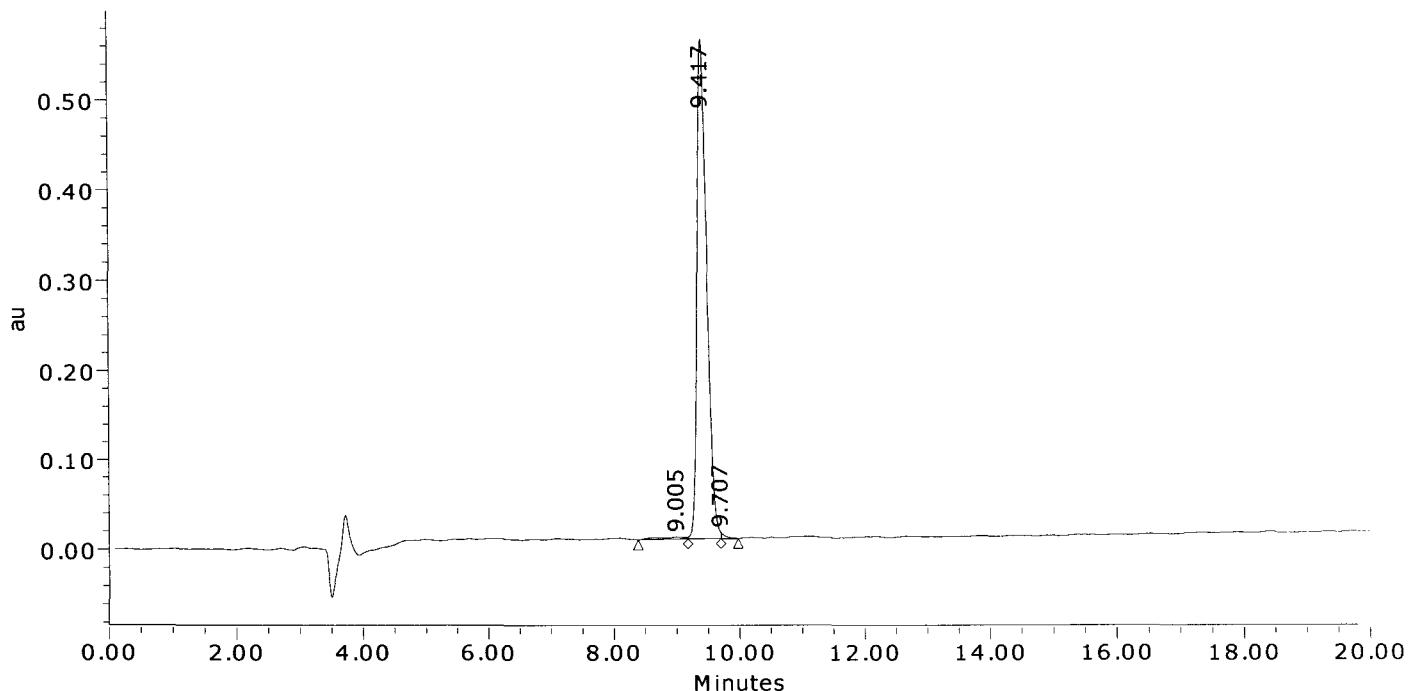
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344816/SW05083T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 12:38:21 CST  
Sample ID: 344816 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344816\_A Final\_PDA  
Date Acquired: 5/15/2008 23:39:31 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15%-35% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.2	9.005	75984	2377
2	98.3	9.417	5981260	555678
3	0.5	9.707	29379	6614
Sum	100.00		6086624	564669.3

**American Peptide Company, Inc.  
MS Analysis Report**

**Sample ID:**

**344816**

**Lot # : SW05083T**

**Chemist : Yan Li**

Date Acquired :

5/16/2008 16:38:08 CST

Expected MS :

MW: 1615.0

Acq. Method Set :

Import

Processing Method :

344816\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

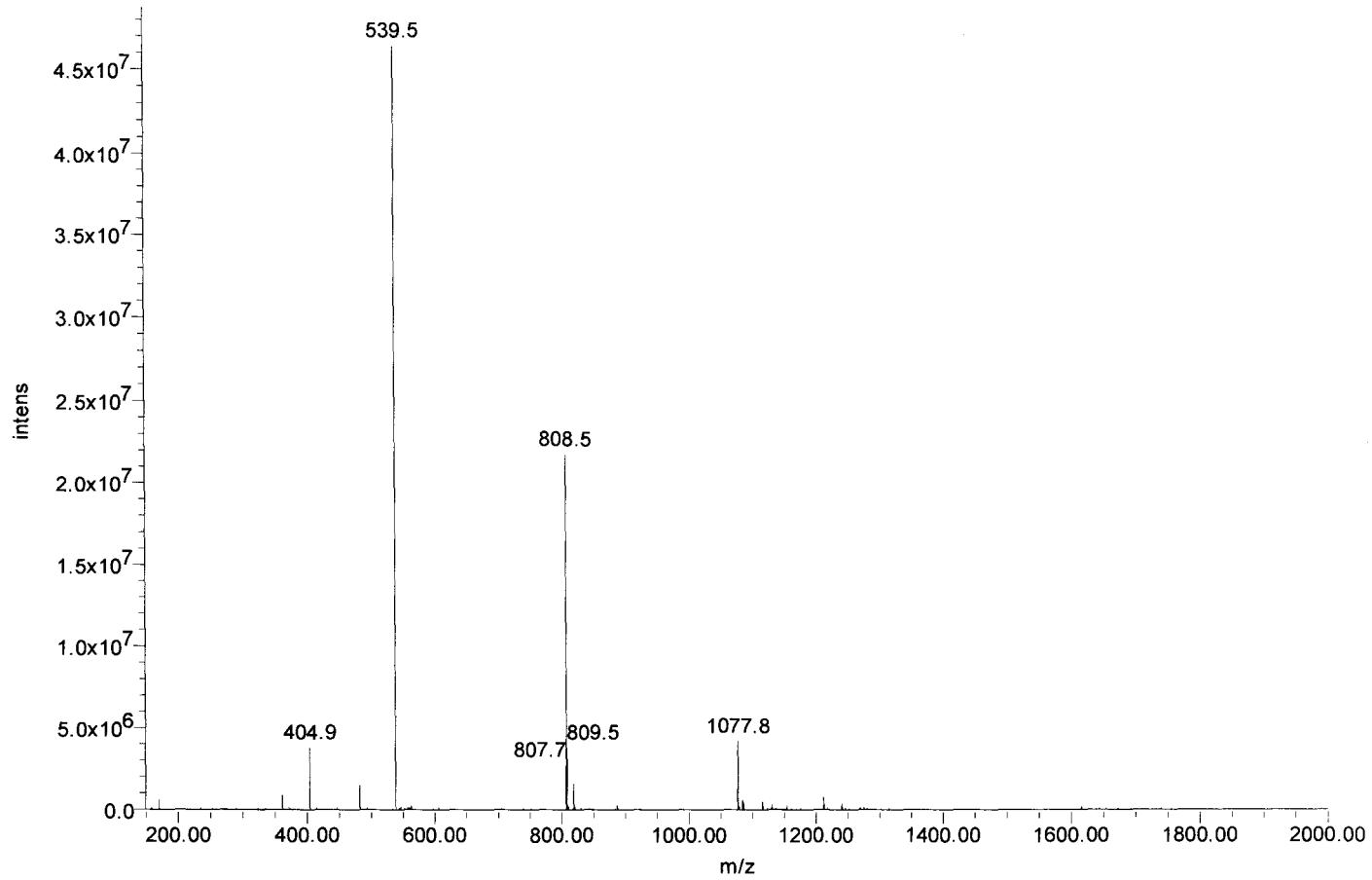
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #77  
PAGLAKRKRTVLDI  
Cat#5786 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344817                   **Lot #:** SW05031T

**Sequence:** Pro-Ala-Gly-Leu-Ala-Lys-Arg-Lys-Arg-Ile-Thr-Val-Leu-Asp-Ile

**Molecular Weight:** 1651.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.0%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.96		Ile	2.00	1.95		Pro	1.00	1.09	
Arg	2.00	2.00		Leu	2.00	2.21		Thr	1.00	1.04	
Asx	1.00	1.00		Lys	2.00	2.03		Val	1.00	1.02	
Gly	1.00	0.97									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Handwritten signature of Yanz Li over a horizontal line.

Date: 05/15/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

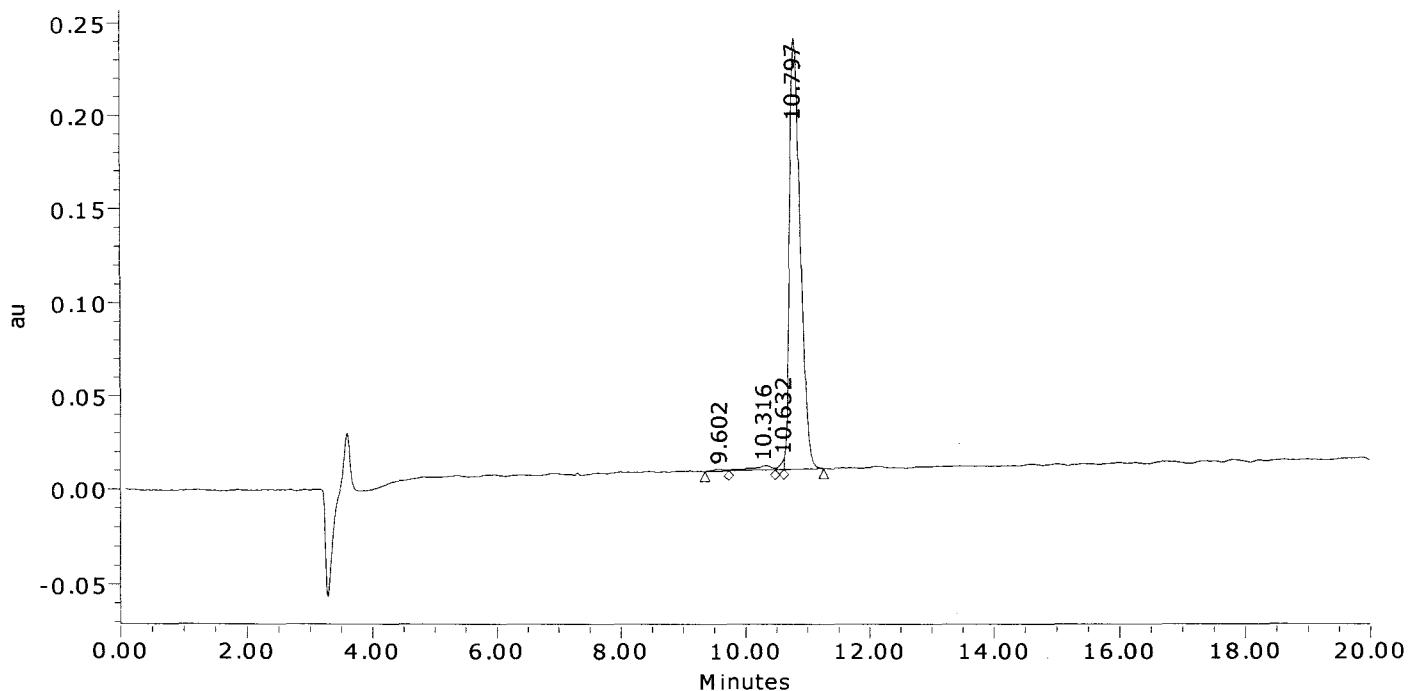
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344817/SW05031T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 12:04:23 CST  
Sample ID: 344817 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344817\_A Final\_PDA  
Date Acquired: 5/13/2008 10:33:38 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22%-42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.6	9.602	15929	1214
2	1.7	10.316	48381	2229
3	0.7	10.632	21094	5651
4	97.0	10.797	2791103	231000
<b>Sum</b>	<b>100.00</b>		<b>2876508</b>	<b>240094.0</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344817

Lot # : SW05031T

Chemist : Yan Li

Date Acquired :

5/13/2008 13:12:46 CST

Expected MS :

MW: 1651.0

Acq. Method Set :

Import

Processing Method :

344817\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

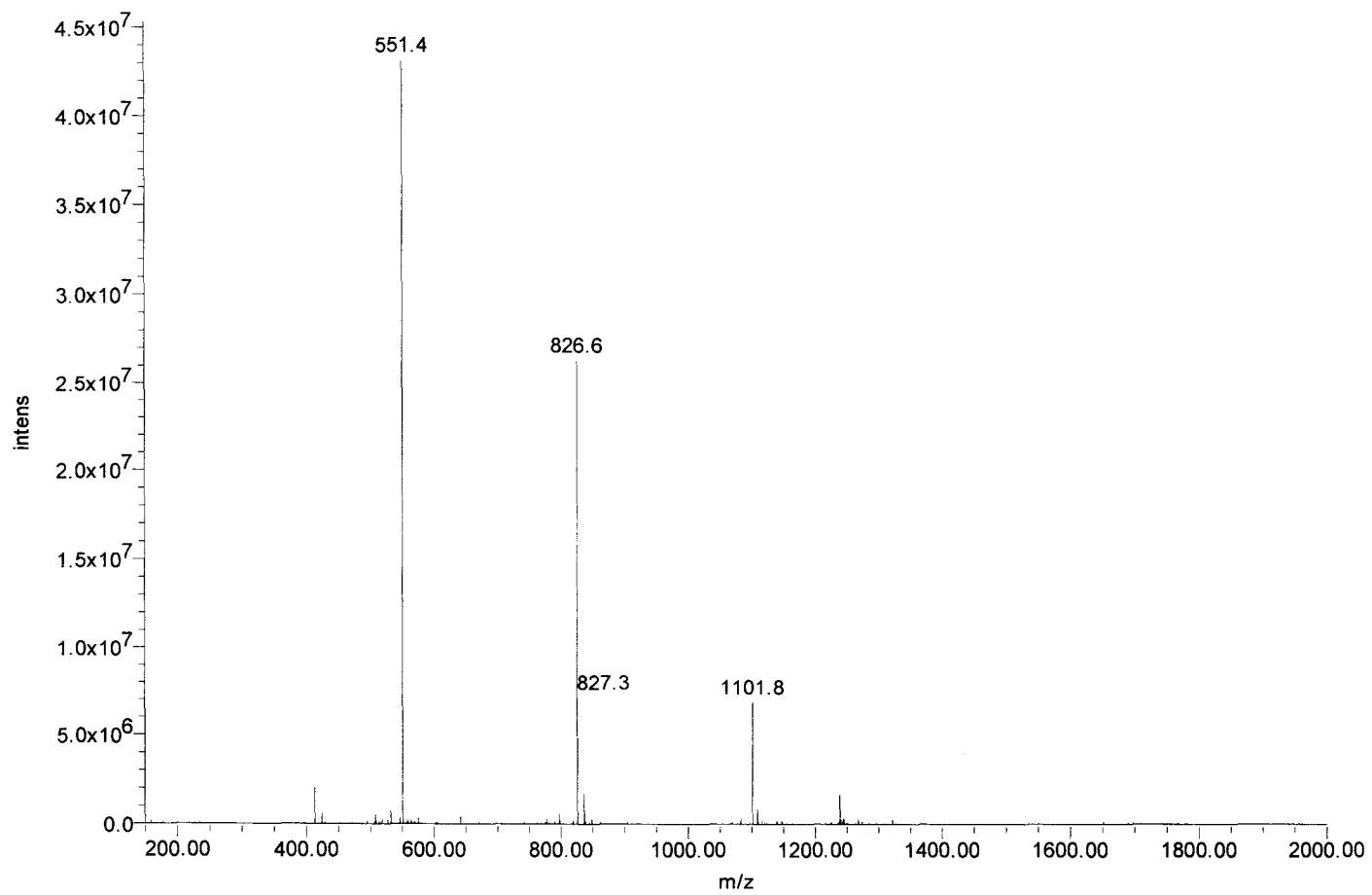
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #78  
AKRKRTVLDIGDAY  
Cat#5787 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344818                   **Lot #:** SW05073T  
**Sequence:** Ala-Lys-Arg-Lys-Arg-Ile-Thr-Val-Leu-Asp-Ile-Gly-Asp-Ala-Tyr  
**Molecular Weight:** 1719.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/14/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.10		Ile	2.00	1.97		Thr	1.00	1.10	
Arg	2.00	2.00		Leu	1.00	1.03		Tyr	1.00	1.00	
Asx	2.00	2.10		Lys	2.00	2.05		Val	1.00	1.04	
Gly	1.00	1.03									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yanz Li'.

Date: 05/20/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

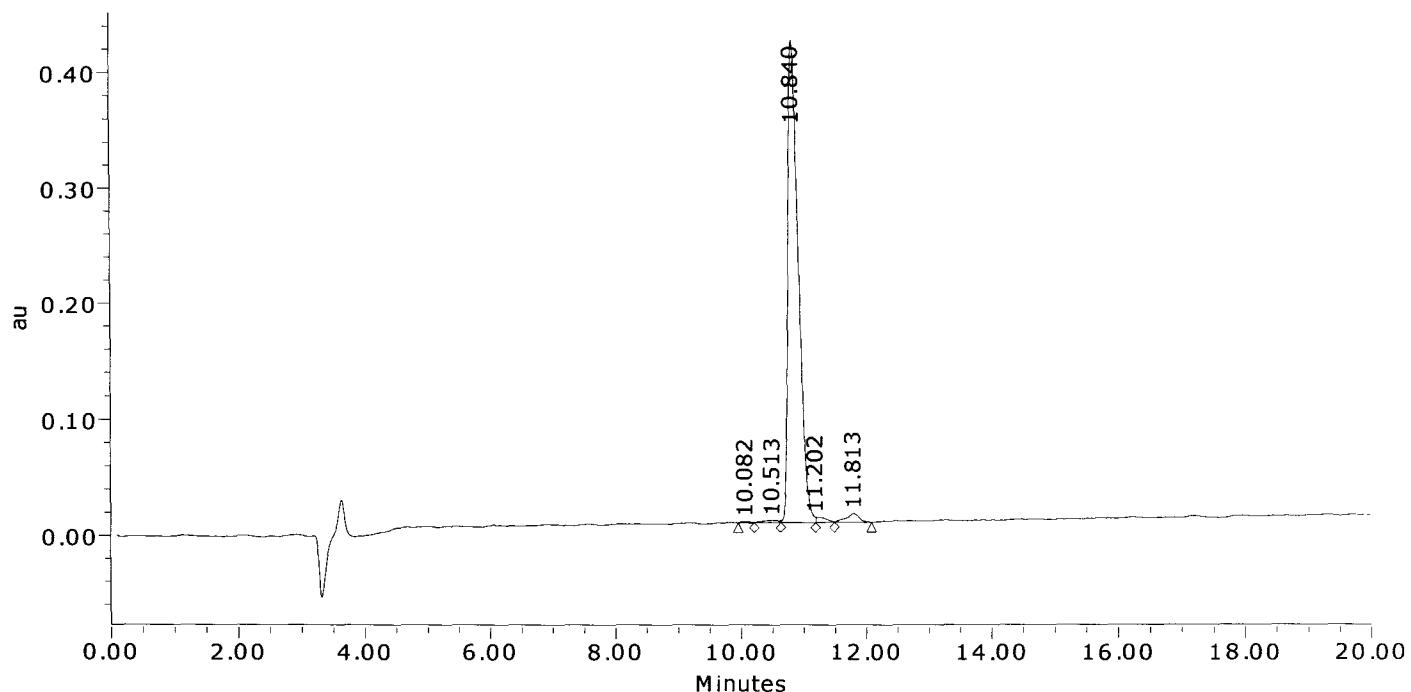
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344818/SW05073T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 13:06:36 CST  
Sample ID: 344818 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344818\_A Final\_PDA  
Date Acquired: 5/14/2008 21:02:28 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

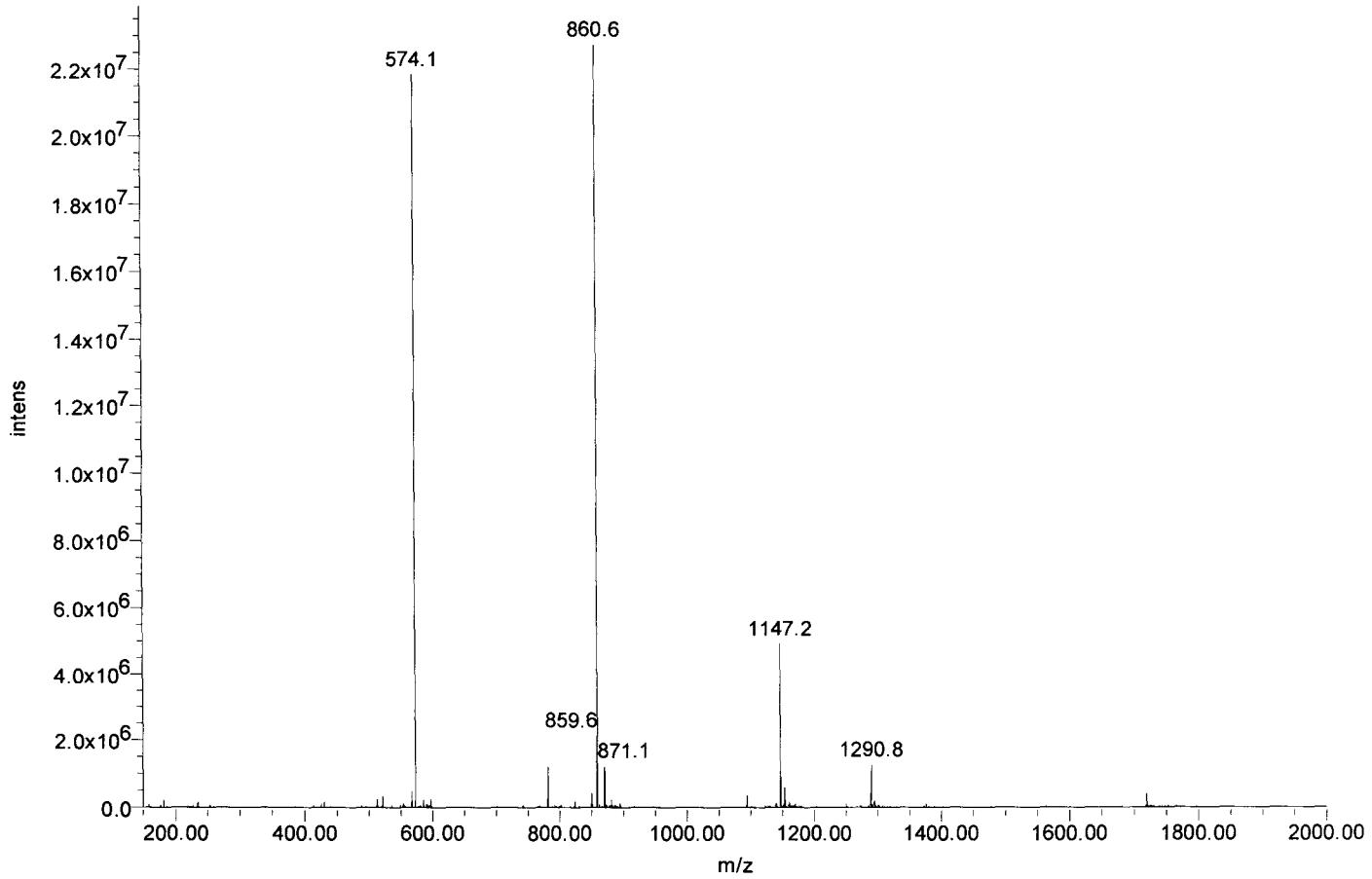


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.2	10.082	8937	945
2	0.7	10.513	36438	2064
3	95.9	10.840	4819177	416154
4	1.1	11.202	52806	4396
5	2.1	11.813	106664	7323
Sum	100.00		5024022	430881.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344818      **Lot # :** SW05073T      **Chemist :** Yan Li

Date Acquired : 5/15/2008 13:25:50 CST  
Expected MS : MW: 1719.0  
Acq. Method Set : Import  
Processing Method : 344818\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #79  
RITVLDIGDAYFSIP  
Cat#5788 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344819                   **Lot #:** SW05141T  
**Sequence:** Arg-Ile-Thr-Val-Leu-Asp-Ile-Gly-Asp-Ala-Tyr-Phe-Ser-Ile-Pro  
**Molecular Weight:** 1680.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 84.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05		Ile	3.00	2.85		Ser	1.00	0.88	
Arg	1.00	0.97		Leu	1.00	0.99		Thr	1.00	0.94	
Asx	2.00	2.00		Phe	1.00	1.03		Tyr	1.00	0.97	
Gly	1.00	1.00		Pro	1.00	1.01		Val	1.00	0.99	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/25/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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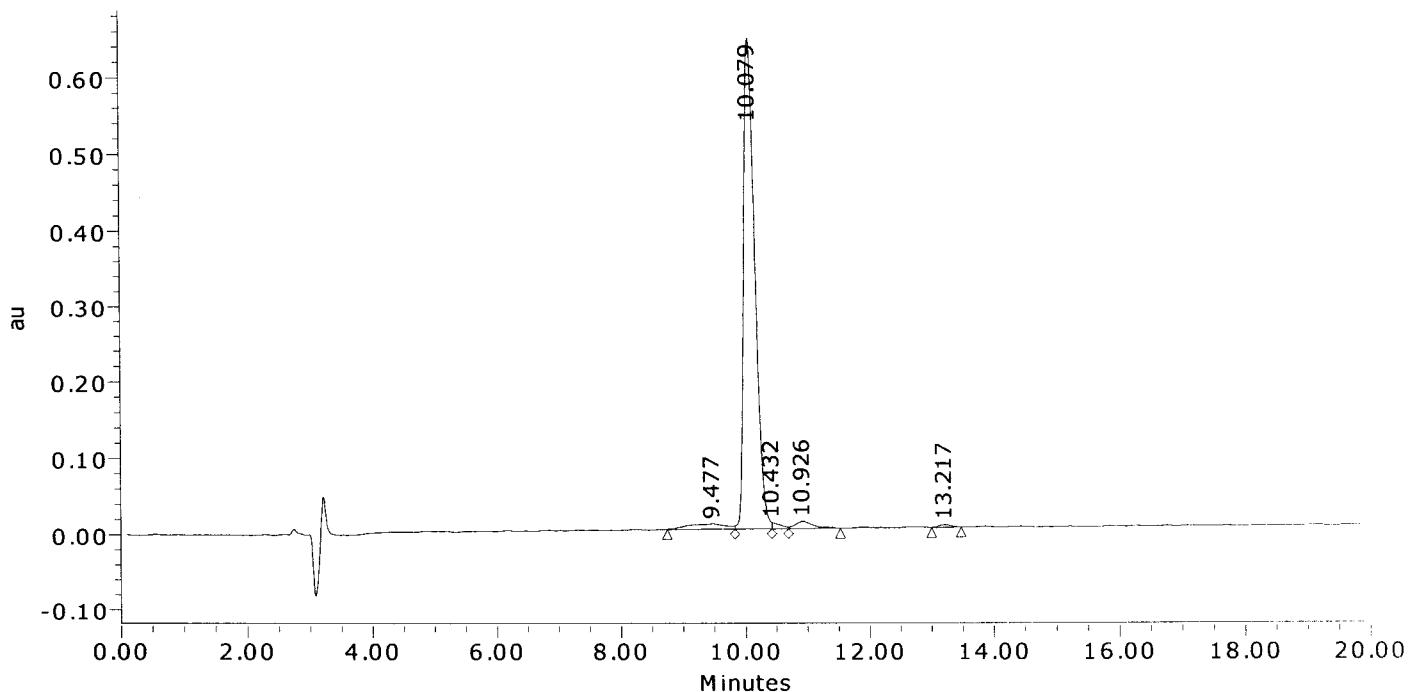
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344819/SW05141T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/21/2008 12:34:13 CST  
Sample ID: 344819 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344819\_A Final\_PDA  
Date Acquired: 5/21/2008 11:27:22 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li; Column Temp.: 50C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	3.3	9.477	289304	7027
2	92.9	10.079	8026967	643588
3	0.9	10.432	78352	8391
4	2.2	10.926	192601	9610
5	0.6	13.217	49223	3721
Sum	100.00		8636447	672336.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344819**

**Lot # : SW05141T**

**Chemist : Yan Li**

Date Acquired :

5/21/2008 16:47:08 CST

Expected MS :

MW: 1680.0

Acq. Method Set :

Import

Processing Method :

344819\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

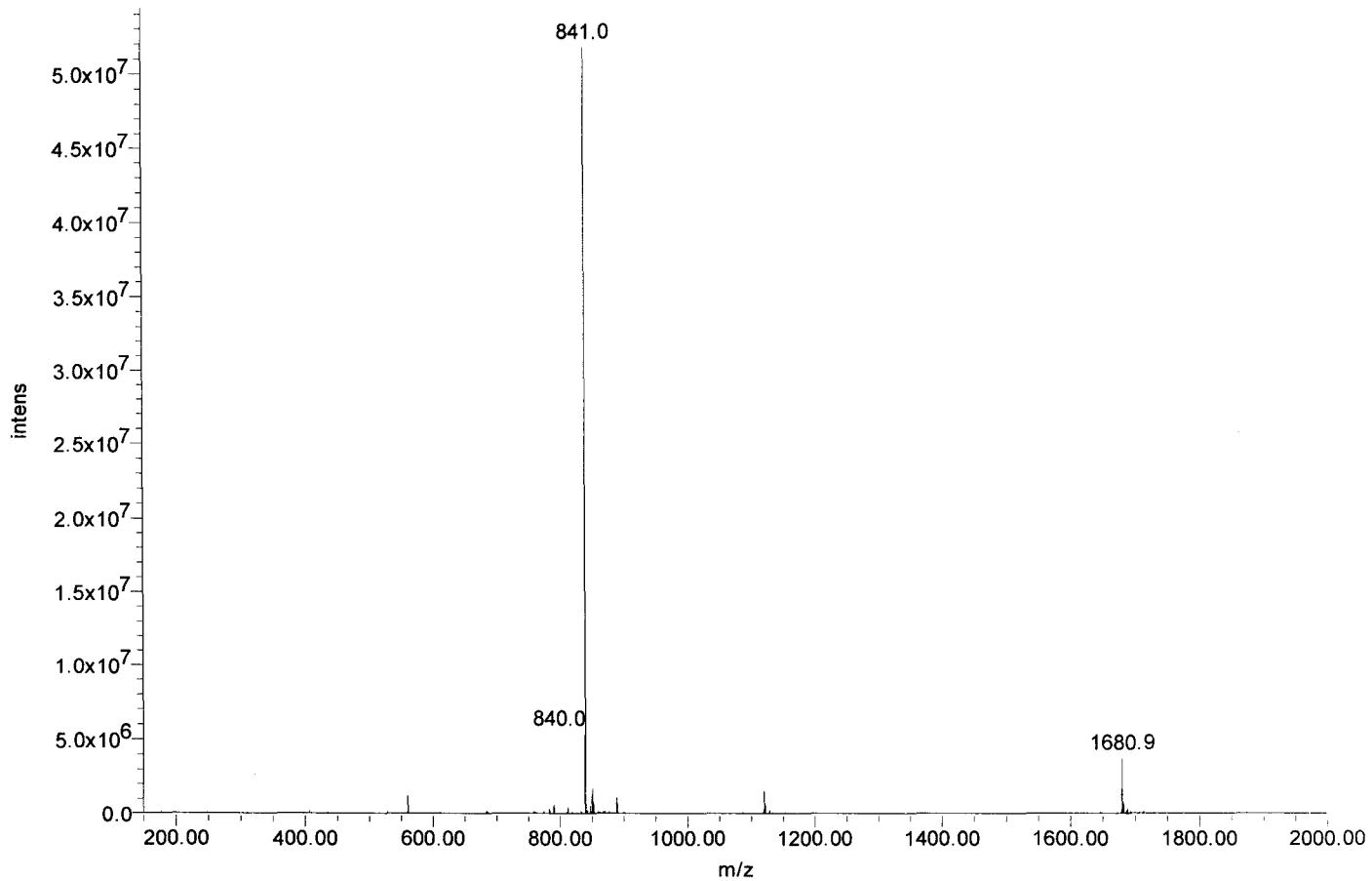
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #80  
LDIGDAYFSIPLDEE  
Cat#5789 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344820                   **Lot #:** SW05092T

**Sequence:** Leu-Asp-Ile-Gly-Asp-Ala-Tyr-Phe-Ser-Ile-Pro-Leu-Asp-Glu-Glu

**Molecular Weight:** 1696.8 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.1%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 90.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.98		Ile	2.00	1.84		Pro	1.00	0.91	
Asx	3.00	3.00		Leu	2.00	1.98		Ser	1.00	0.85	
Glx	2.00	2.20		Phe	1.00	0.97		Tyr	1.00	0.90	
Gly	1.00	0.95									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

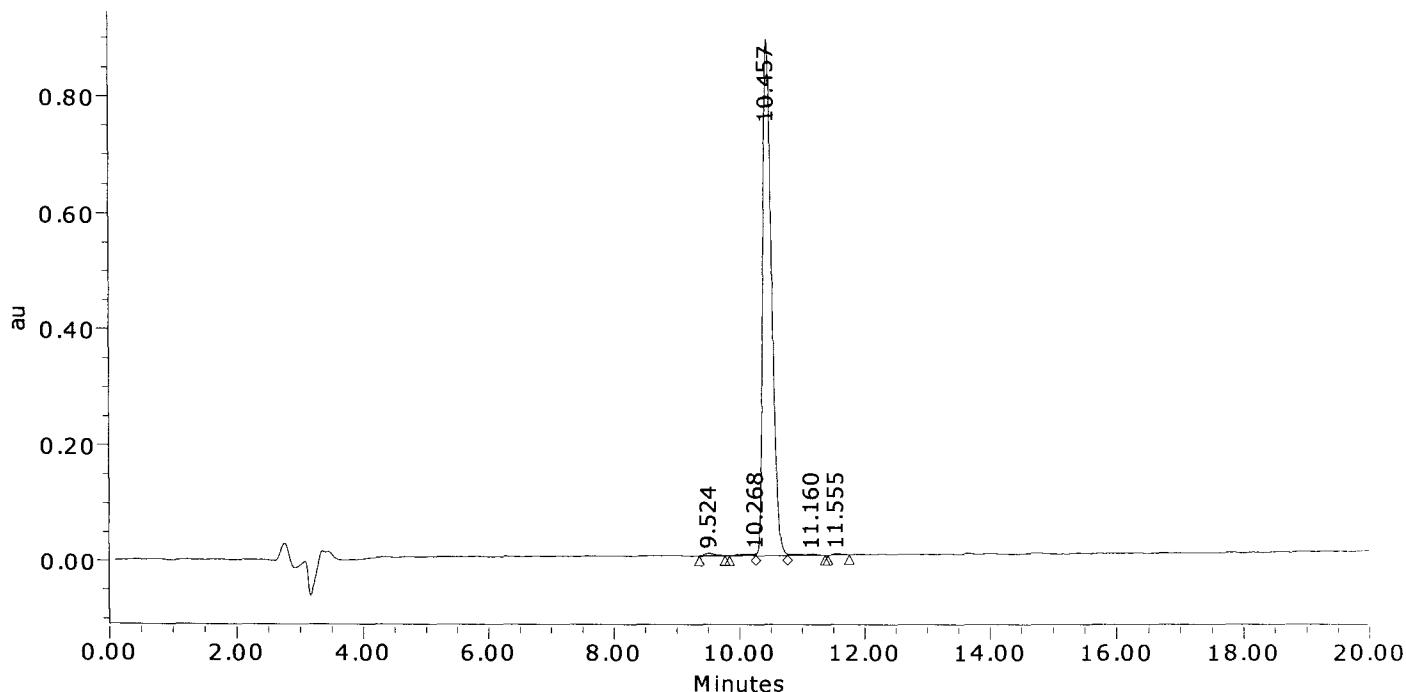
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344820/SW05092T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:51:33 CST  
Sample ID: 344820 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344820\_A Final\_PDA  
Date Acquired: 5/16/2008 15:14:40 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	9.524	43437	3643
2	0.6	10.268	50001	3598
3	98.1	10.457	8644400	887563
4	0.6	11.160	54803	2501
5	0.3	11.555	22762	2283
Sum	100.00		8815403	899588.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344820

Lot # : SW05092T

Chemist : Yan Li

Date Acquired :

5/16/2008 16:41:56 CST

Expected MS :

MW: 1696.8

Acq. Method Set :

Import

Processing Method :

344820\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

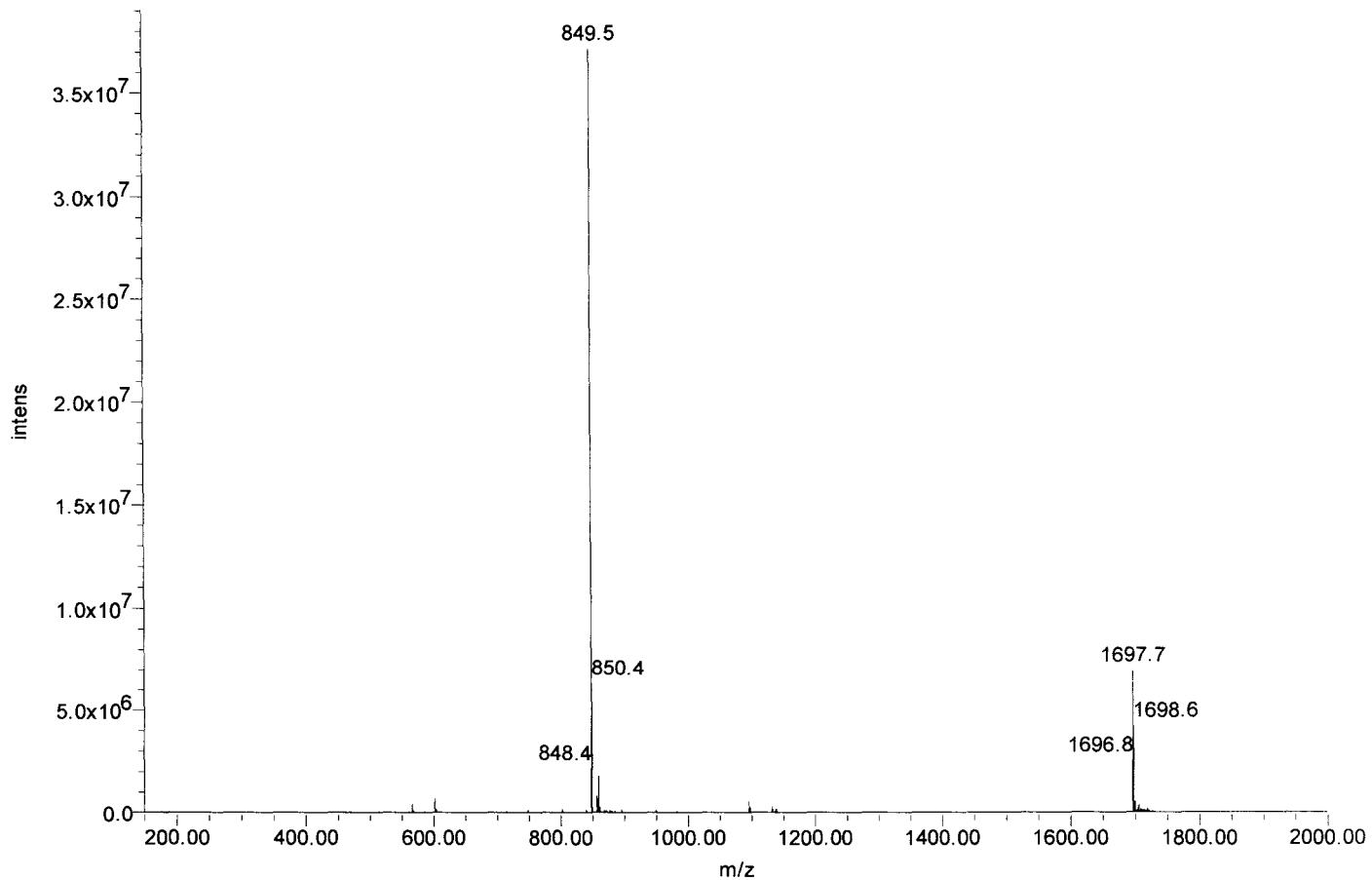
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #81  
DAYFSIPLDEEFRQY  
Cat#5790 Lot#080132  
Net Wt. 1mg

**Product Name:**

Custom Peptide

**Product #:**

344821

**Lot #:** SW05005T

**Sequence:**

Asp-Ala-Tyr-Phe-Ser-Ile-Pro-Leu-Asp-Glu-Glu-Phe-Arg-Gln-Tyr

**Molecular Weight:**

1893.1 amu

**Mass Spectra Analysis:**

Electrospray " Exhibits correct MW "

(see attached MS spectrogram)

**HPLC Analysis:**

Peptide Purity: 97.8%

(see attached HPLC chromatogram)

**Solubility:**

1.0 mg/mL in 10% Acetonitrile in water

**Appearance:**

White lyophilized powder

**Peptide Content:**

86.9%

**Counter Ion:**

Trifluoroacetate

**Date of Mfg:**

05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Ile	1.00	0.94		Pro	1.00	0.85	
Arg	1.00	1.00		Leu	1.00	0.97		Ser	1.00	0.80	
Asx	2.00	2.00		Phe	2.00	2.02		Tyr	2.00	2.01	
Glx	3.00	2.85									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/14/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

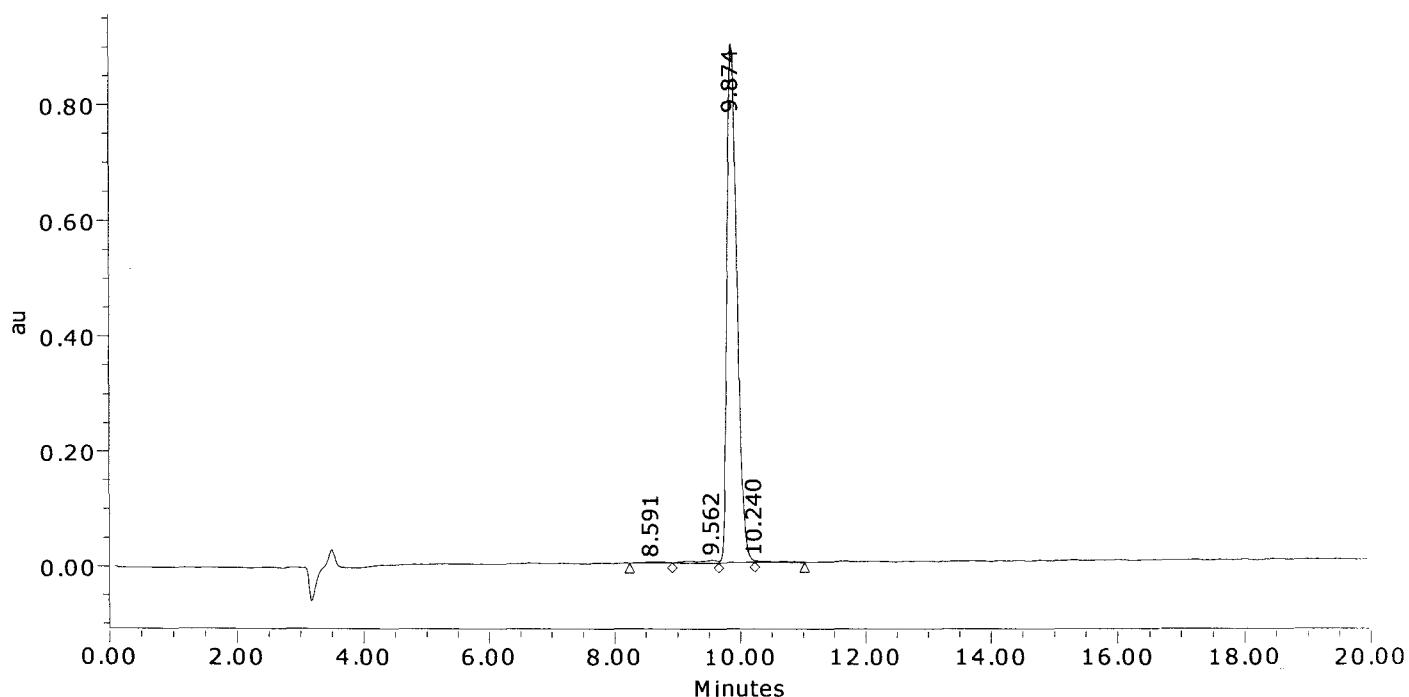
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344821/SW05005T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/12/2008 11:25:04 CST  
Sample ID: 344821 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344821\_A Final\_PDA  
Date Acquired: 5/12/2008 9:50:16 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.5	8.591	47972	2136
2	1.2	9.562	117085	4534
3	97.8	9.874	9877973	899571
4	0.5	10.240	53292	3155
Sum	100.00		10096323	909396.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344821

Lot # : SW05005T

Chemist : Yan Li

Date Acquired :

5/12/2008 13:38:22 CST

Expected MS :

MW: 1893.1

Acq. Method Set :

Import

Processing Method :

344821\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

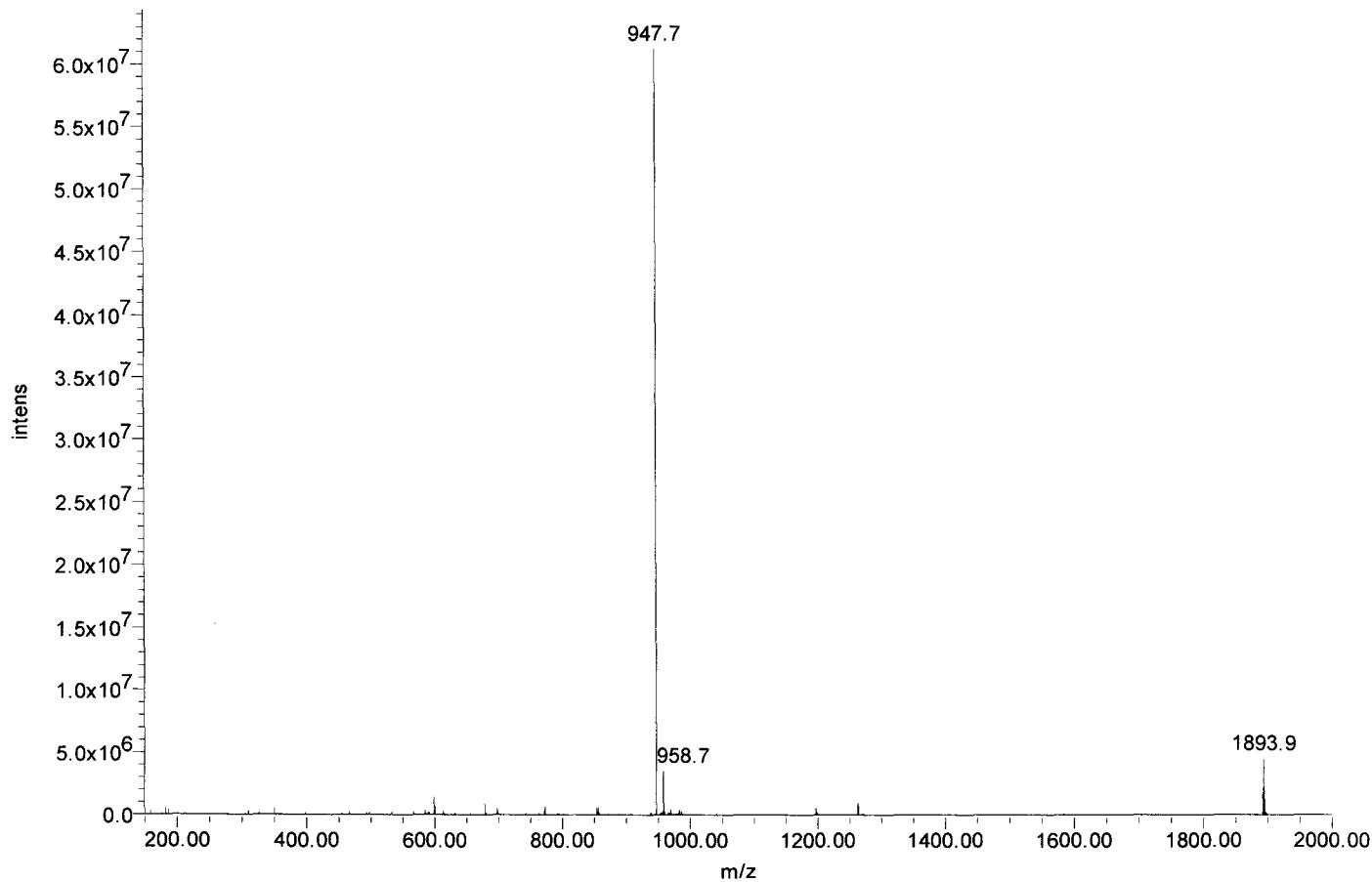
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #82  
SIPLDEEFRQYTAFT  
Cat#5791 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344822                   **Lot #:** SW05081T

**Sequence:** Ser-Ile-Pro-Leu-Asp-Glu-Glu-Phe-Arg-Gln-Tyr-Thr-Ala-Phe-Thr

**Molecular Weight:** 1817.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 86.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		Ile	1.00	0.96		Ser	1.00	0.85	
Arg	1.00	1.03		Leu	1.00	1.02		Thr	2.00	2.00	
Asx	1.00	1.00		Phe	2.00	2.09		Tyr	1.00	1.00	
Glx	3.00	2.92		Pro	1.00	0.87					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/20/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

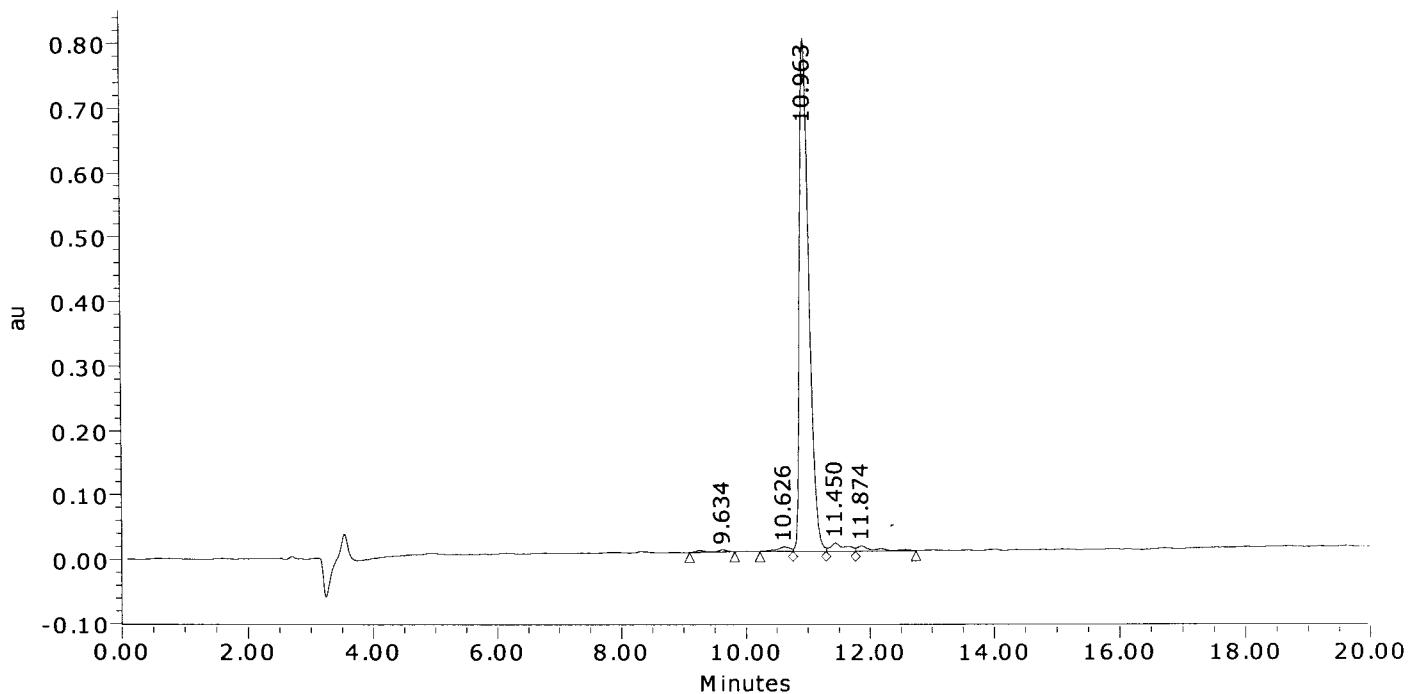
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344822/SW05081T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 10:56:43 CST  
Sample ID: 344822 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344822\_A Final\_PDA  
Date Acquired: 5/15/2008 19:11:47 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.9	9.634	76644	3894
2	1.3	10.626	112824	7111
3	93.6	10.963	8349080	794932
4	2.4	11.450	217798	12606
5	1.8	11.874	165005	8140
Sum	100.00		8921352	826682.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344822**

**Lot # : SW05081T**

**Chemist : Yan Li**

Date Acquired :

5/15/2008 19:11:47 CST

Expected MS :

MW: 1817.0

Acq. Method Set :

Import

Processing Method :

344822\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

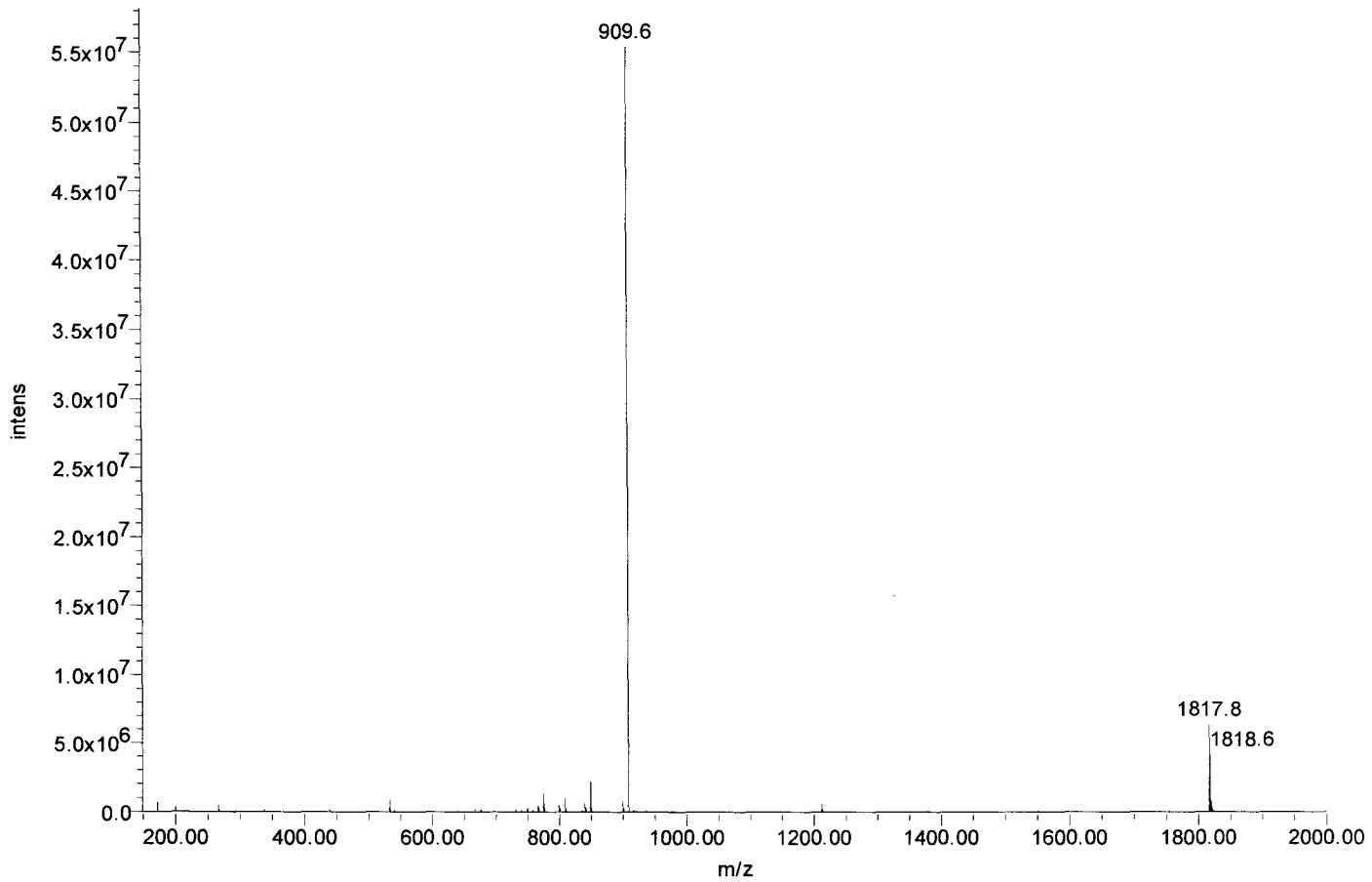
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #83  
DEEFRQYTAFTI.PSV  
Cat#5792 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344823                   **Lot #:** SW05069T

**Sequence:** Asp-Glu-Glu-Phe-Arg-Gln-Tyr-Thr-Ala-Phe-Thr-Leu-Pro-Ser-Val

**Molecular Weight:** 1803.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.9%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 88.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/14/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.02		Leu	1.00	1.12		Thr	2.00	1.94	
Arg	1.00	1.00		Phe	2.00	2.02		Tyr	1.00	1.07	
Asx	1.00	0.97		Pro	1.00	0.87		Val	1.00	1.03	
Glx	3.00	2.87		Ser	1.00	0.87					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/16/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

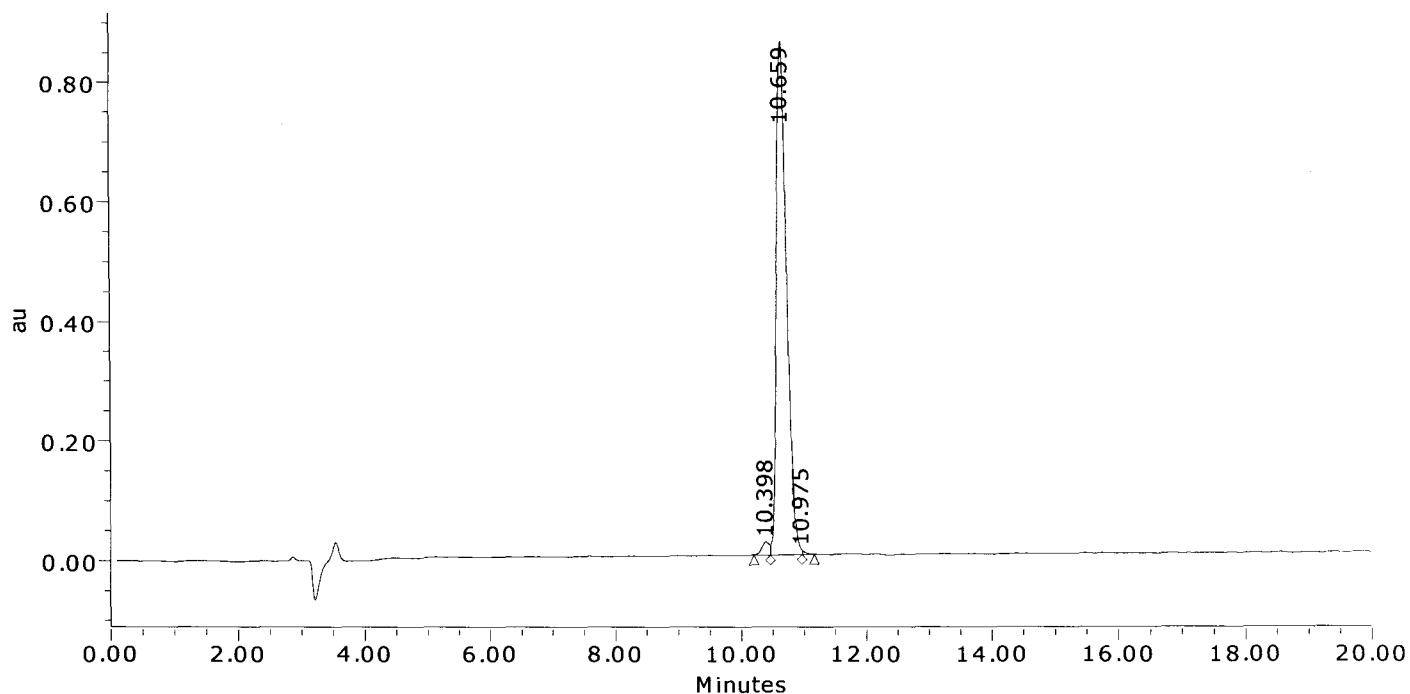
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344823/SW05069T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 9:45:06 CST  
Sample ID: 344823 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344823\_A\_Final\_PDA  
Date Acquired: 5/14/2008 18:30:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

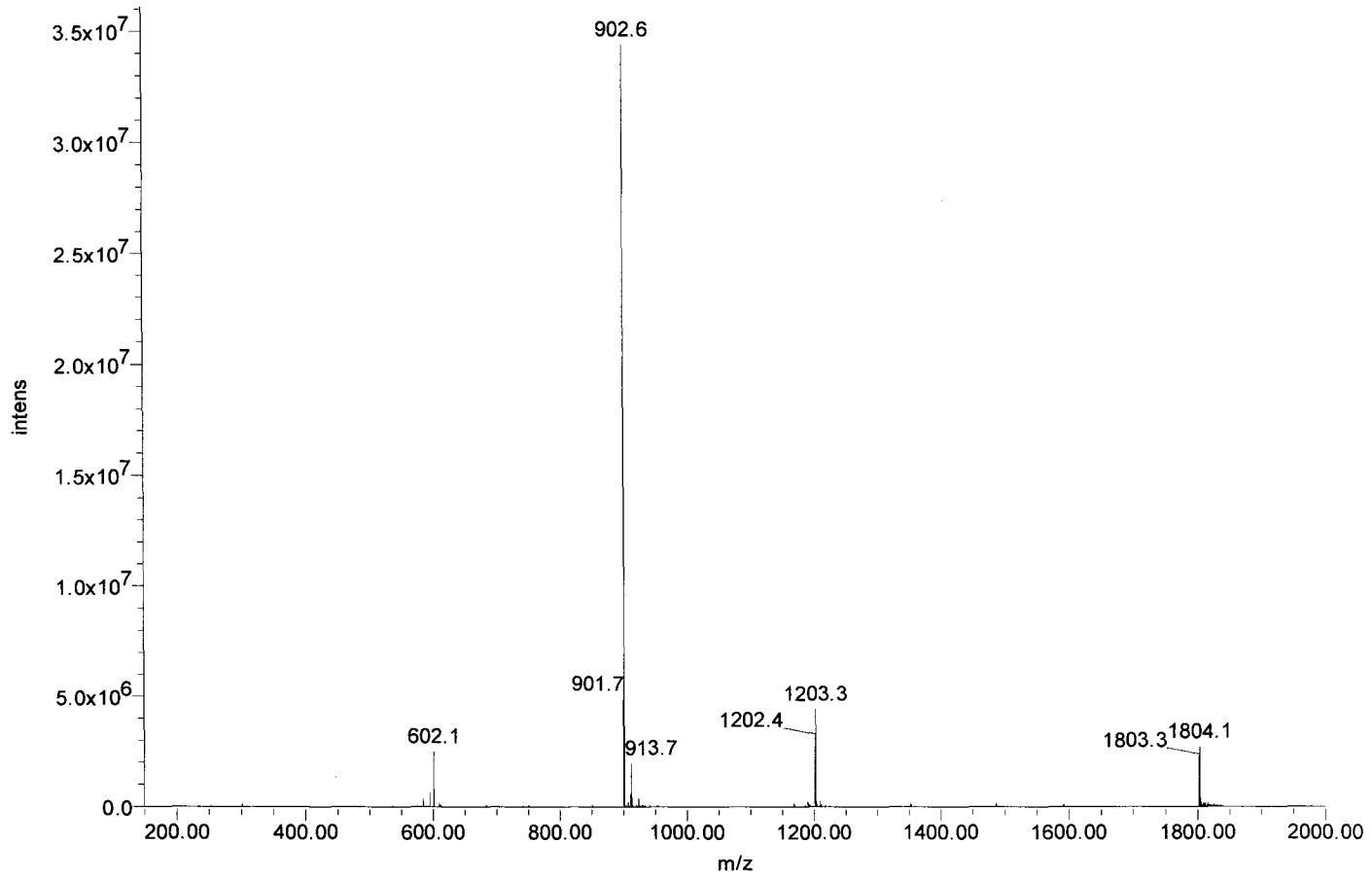


	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	1.8	10.398	181120	21616
2	97.9	10.659	9767016	858908
3	0.3	10.975	26202	7186
Sum	100.00		9974338	887710.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344823      **Lot # :** SW05069T      **Chemist :** Yan Li

Date Acquired : 5/15/2008 13:34:06 CST  
Expected MS : MW: 1803.0  
Acq. Method Set : Import  
Processing Method : 344823\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #84  
RQYTAFTILPSVNNAE  
Cat#5793 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344824                   **Lot #:** SW05189T  
**Sequence:** Arg-Gln-Tyr-Thr-Ala-Phe-Thr-Leu-Pro-Ser-Val-Asn-Asn-Ala-Glu  
**Molecular Weight:** 1710.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 78.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.94		Leu	1.00	0.99		Thr	2.00	1.97	
Arg	1.00	1.00		Phe	1.00	1.00		Tyr	1.00	0.96	
Asx	2.00	1.98		Pro	1.00	1.00		Val	1.00	0.97	
Glx	2.00	2.16		Ser	1.00	0.88					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 05/28/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

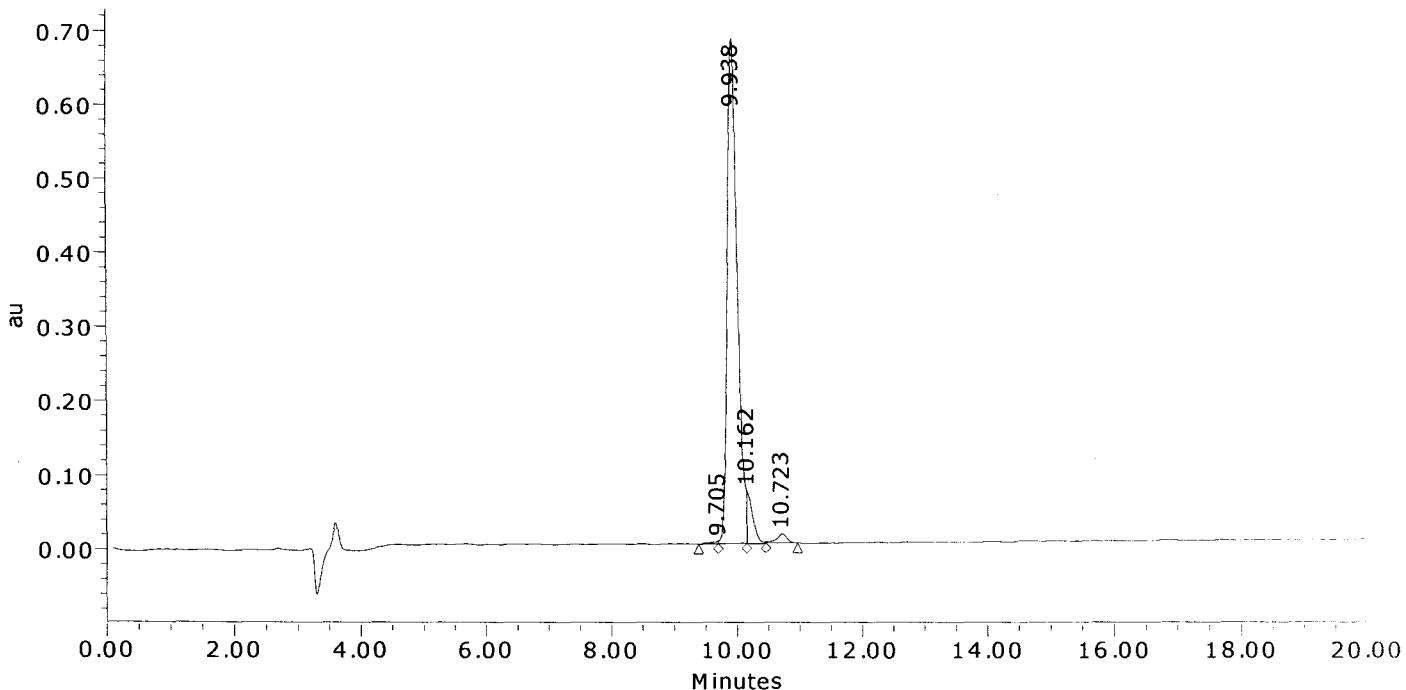
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344824/SW05189T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 10:18:21 CST  
Sample ID: 344824 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344824\_A Final\_PDA  
Date Acquired: 5/26/2008 11:29:57 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.3	9.705	20780	3135
2	92.3	9.938	7468218	681661
3	5.7	10.162	459950	71480
4	1.7	10.723	140062	12227
Sum	100.00		8089009	768502.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344824**

**Lot # : SW05189T**

**Chemist : Yan Li**

Date Acquired :

5/26/2008 11:29:57 CST

Expected MS :

MW: 1710.9

Acq. Method Set :

Import

Processing Method :

344824\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

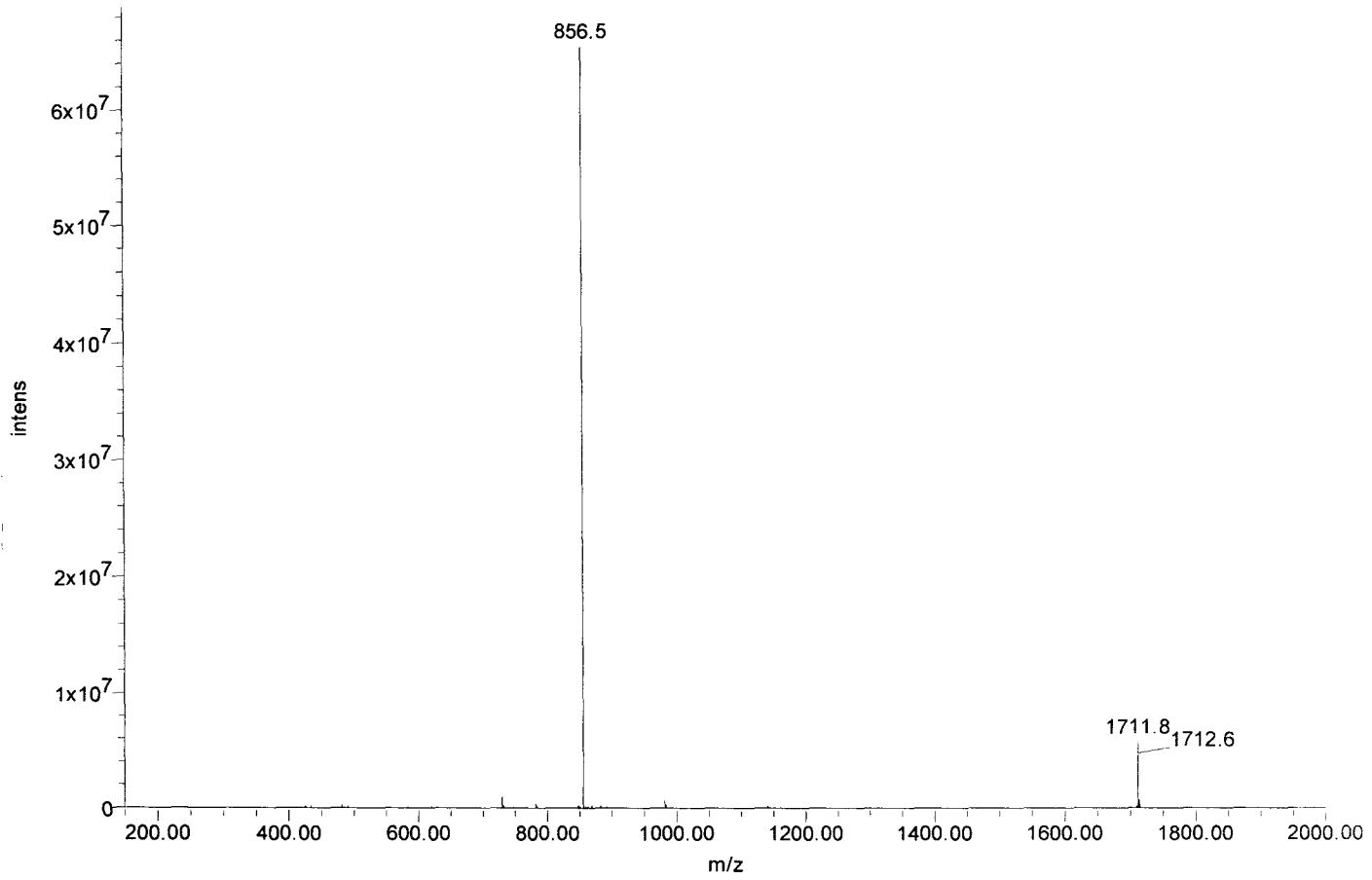
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #85  
AFILPSVNNAEPGKR  
Cat#5794 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344825                   **Lot #:** SW05027T  
**Sequence:** Ala-Phe-Thr-Leu-Pro-Ser-Val-Asn-Asn-Ala-Glu-Pro-Gly-Lys-Arg  
**Molecular Weight:** 1600.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 99.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.06		Gly	1.00	1.00		Pro	2.00	2.13	
Arg	1.00	1.00		Leu	1.00	1.03		Ser	1.00	0.83	
Asx	2.00	1.99		Lys	1.00	1.01		Thr	1.00	0.97	
Glx	1.00	0.98		Phe	1.00	1.00		Val	1.00	1.04	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/20/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

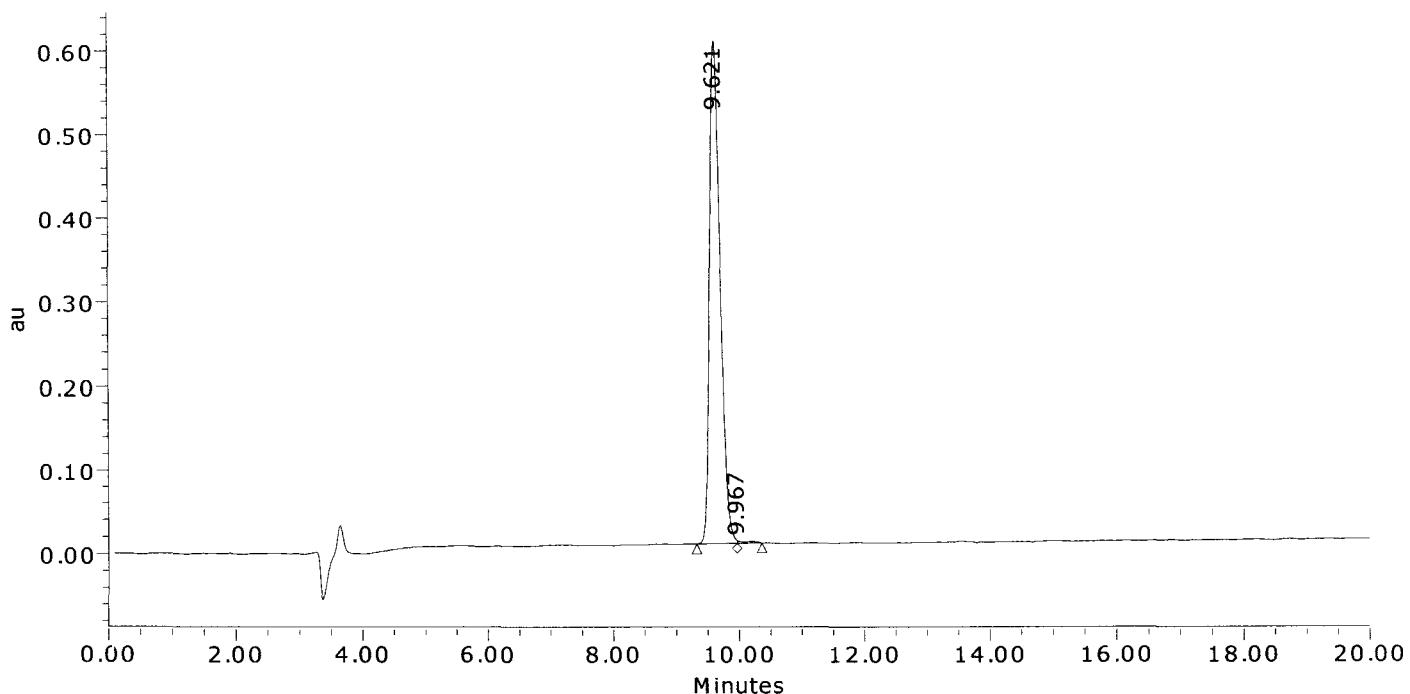
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: **344825/SW05027T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data
Channel Name:	PDA 215.0 nm
Sample ID:	344825
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000
Date Acquired:	5/12/2008 20:30:38 CST
Acq. Method Set:	Import
Run Time:	25.0 Minutes
Date Processed:	5/13/2008 10:03:34 CST
Time Calculated:	Result # 1
Processing Method:	344825_A Final_PDA
Run Mode:	Analysis
Peak Measurement:	Peak Area
Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	99.5	9.621	7046961	599855
2	0.5	9.967	36079	3479
Sum	100.00		7083040	603333.6

**American Peptide Company, Inc.  
MS Analysis Report**

**Sample ID:**

**344825**

**Lot # : SW05027T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 13:29:45 CST

Expected MS :

MW: 1600.8

Acq. Method Set :

Import

Processing Method :

344825\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

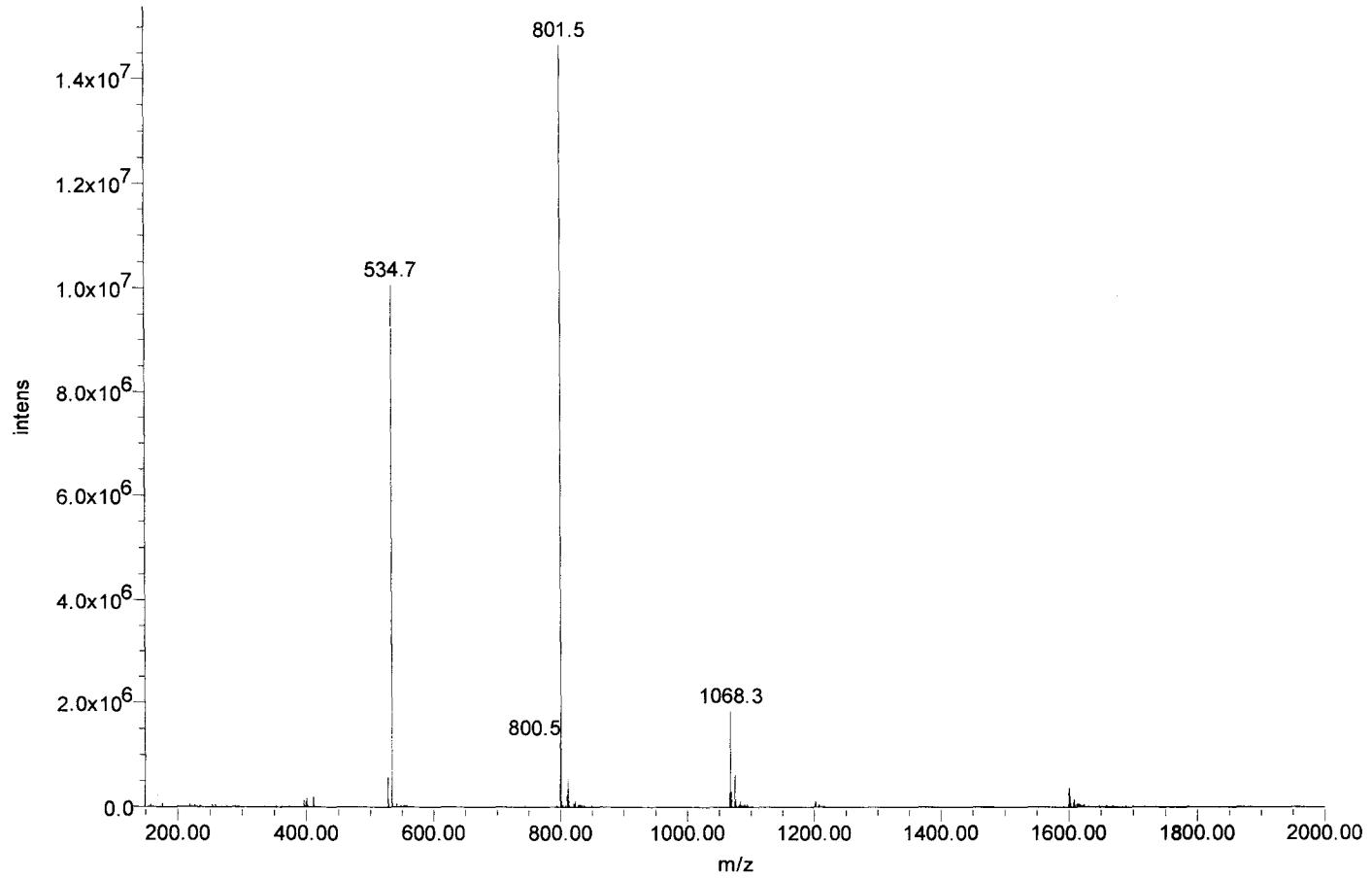
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

STVmac239 Pol #86  
PSVNNAEPMKRYIYK  
Cat#5795 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344826                   **Lot #:** SW05020T

**Sequence:** Pro-Ser-Val-Asn-Asn-Ala-Glu-Pro-Gly-Lys-Arg-Tyr-Ile-Tyr-Lys

**Molecular Weight:** 1736.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		Gly	1.00	1.02	Ser	1.00	0.82
Arg	1.00	1.03		Ile	1.00	0.98	Tyr	2.00	2.14
Asx	2.00	2.00		Lys	2.00	2.02	Val	1.00	1.01
Glx	1.00	1.03		Pro	2.00	2.02			

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/14/08

Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

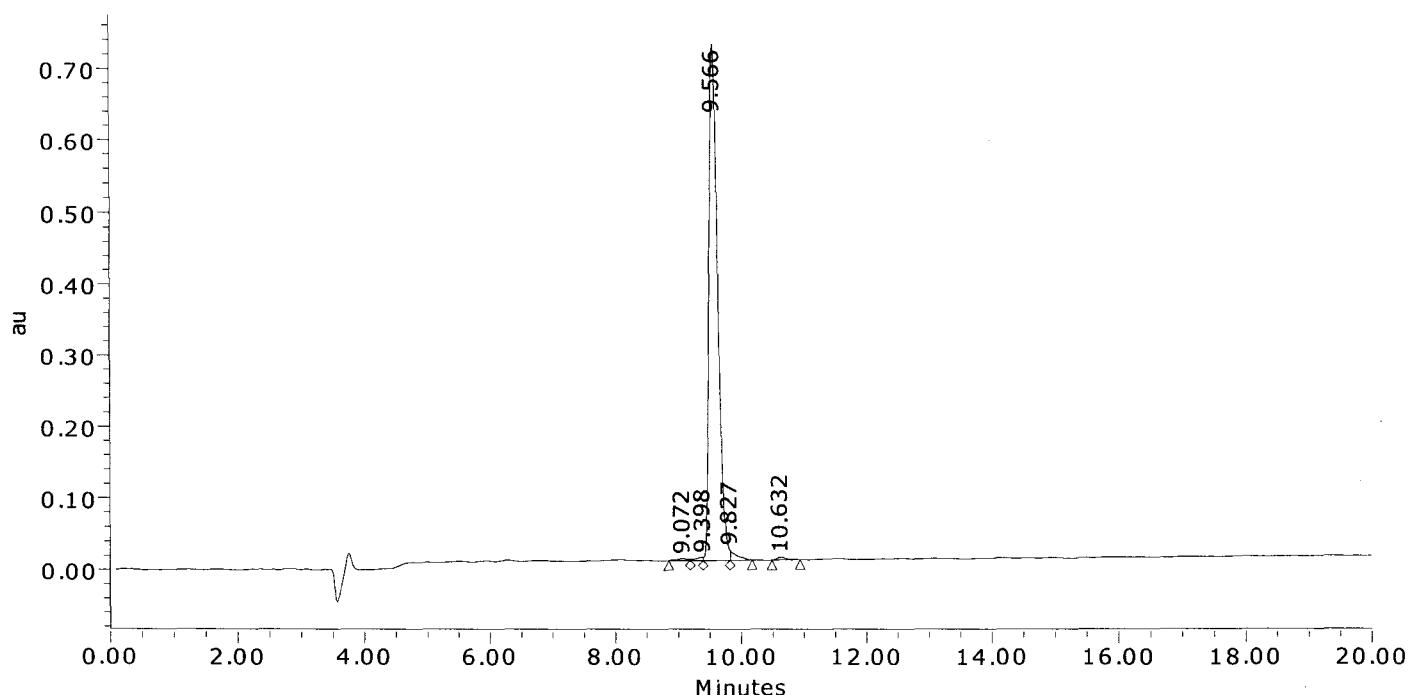
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344826/SW05020T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 10:28:01 CST  
Sample ID: 344826 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344826\_A Final\_PDA  
Date Acquired: 5/12/2008 23:05:24 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 13% -33% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.4	9.072	30127	2656
2	0.5	9.398	33632	4158
3	96.9	9.566	6925993	721036
4	1.5	9.827	110136	14285
5	0.6	10.632	45941	4062
<b>Sum</b>	<b>100.00</b>		<b>7145829</b>	<b>746195.8</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344826

Lot # : SW05020T

Chemist : Yan Li

Date Acquired :

5/12/2008 23:05:24 CST

Expected MS :

MW: 1736.0

Acq. Method Set :

Import

Processing Method :

344826\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

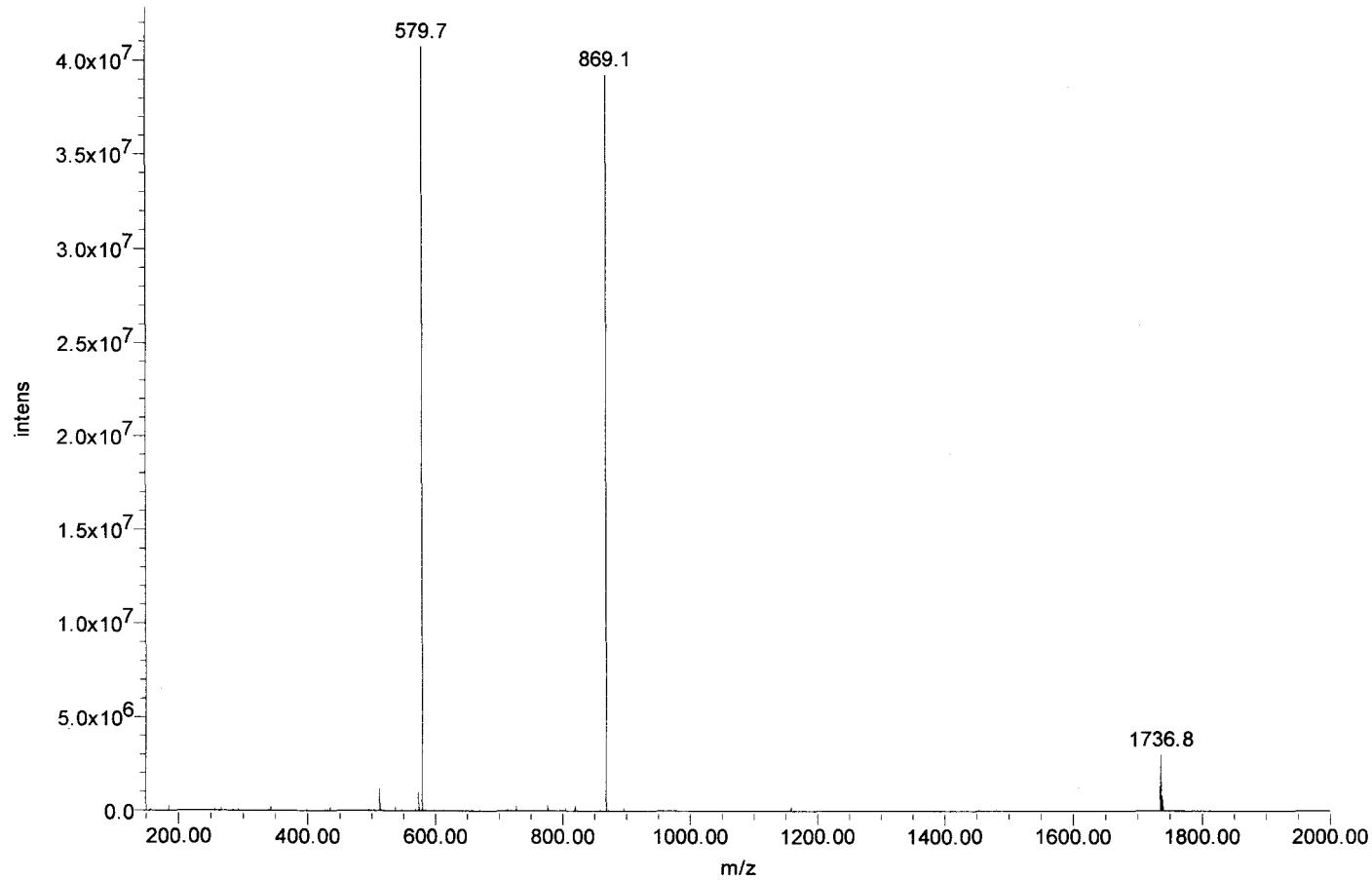
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #87  
NAEPGKRYIYKVLPQ  
Cat#5796 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344827                   **Lot #:** SW05009T  
**Sequence:** Asn-Ala-Glu-Pro-Gly-Lys-Arg-Tyr-Ile-Tyr-Lys-Val-Leu-Pro-Gln  
**Molecular Weight:** 1776.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 98.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.99		Gly	1.00	0.97		Pro	2.00	2.18	
Arg	1.00	0.99		Ile	1.00	0.91		Tyr	2.00	1.96	
Asx	1.00	1.00		Leu	1.00	0.96		Val	1.00	1.01	
Glx	2.00	1.91		Lys	2.00	1.97					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanze Li Date: 05/14/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

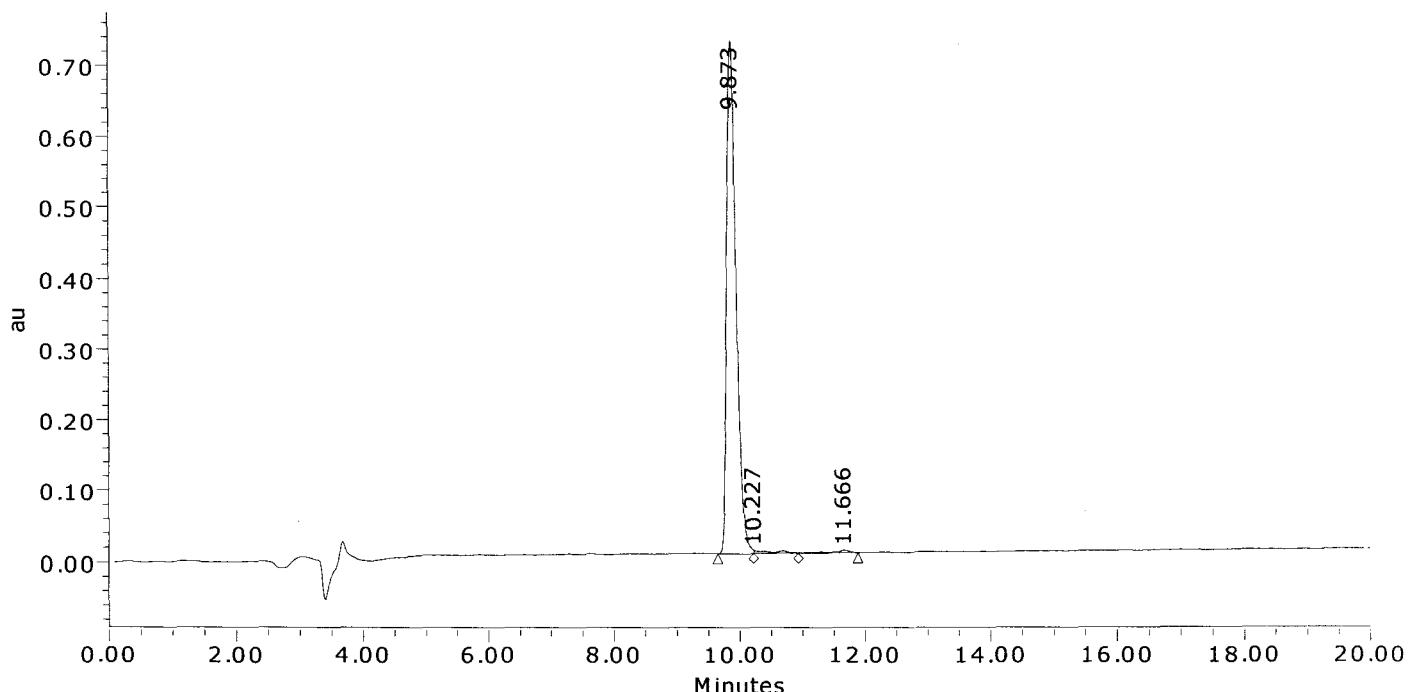
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344827/SW05009T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/12/2008 13:02:47 CST
Sample ID:	344827	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344827_A Final_PDA
Date Acquired:	5/12/2008 12:26:46 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	98.2	9.873	7478328	722073
2	1.0	10.227	75520	4163
3	0.8	11.666	63594	3195
<b>Sum</b>	<b>100.00</b>		<b>7617442</b>	<b>729429.9</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344827

Lot # : SW05009T

Chemist : Yan Li

Date Acquired :

5/12/2008 12:26:46 CST

Expected MS :

MW: 1776.1

Acq. Method Set :

Import

Processing Method :

344827\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

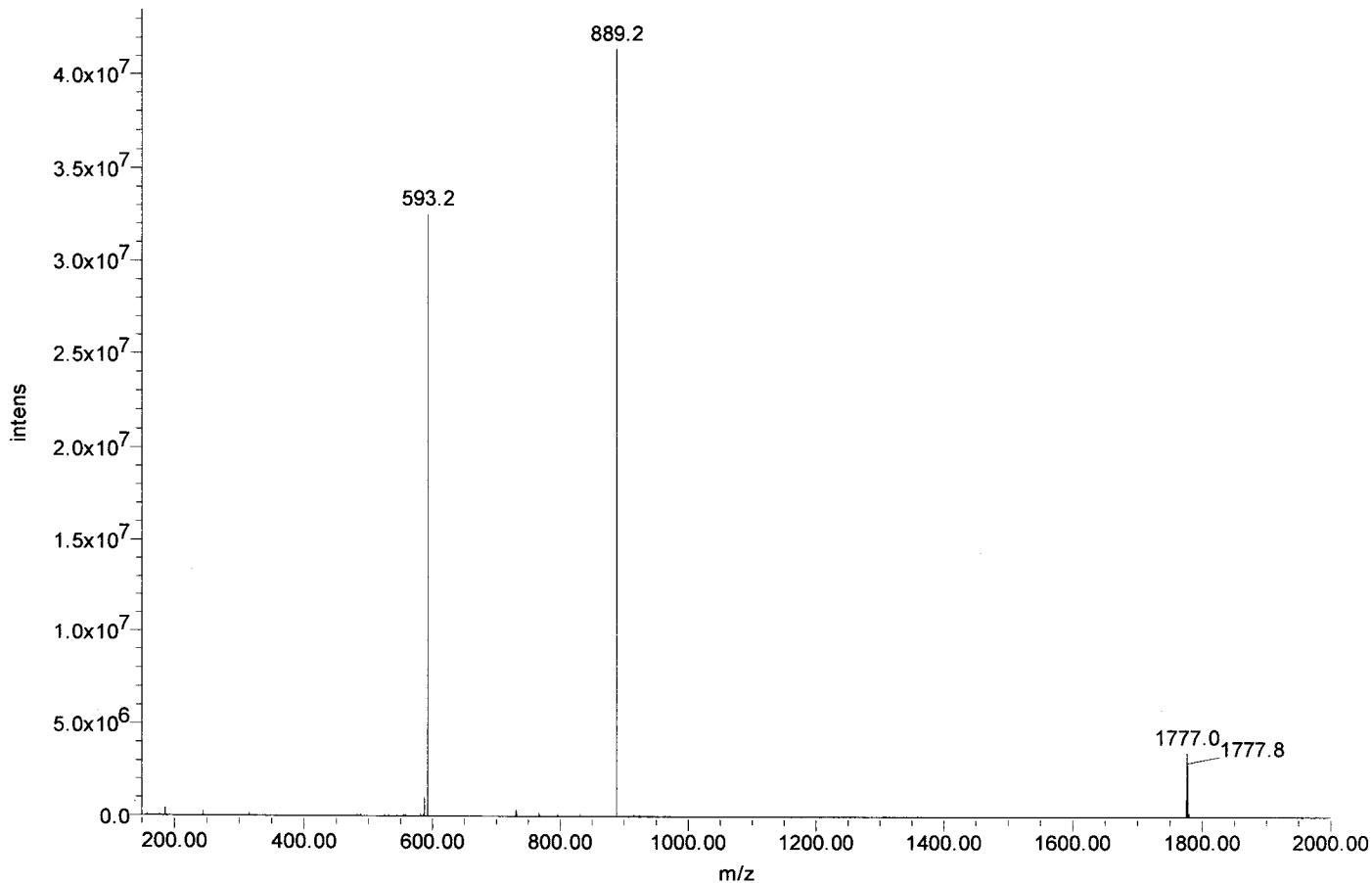
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #88  
GKRYIYKVLPGWKG  
Cat#5797 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344828                   **Lot #:** SW05026T

**Sequence:** Gly-Lys-Arg-Tyr-Ile-Tyr-Lys-Val-Leu-Pro-Gln-Gly-Trp-Lys-Gly

**Molecular Weight:** 1793.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.9%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 71.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Leu	1.00	0.97	Trp	1.00	0.00 *1
Glx	1.00	1.01		Lys	3.00	3.01	Tyr	2.00	2.01
Gly	3.00	3.06		Pro	1.00	0.89	Val	1.00	1.02
Ile	1.00	0.92							

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/15/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

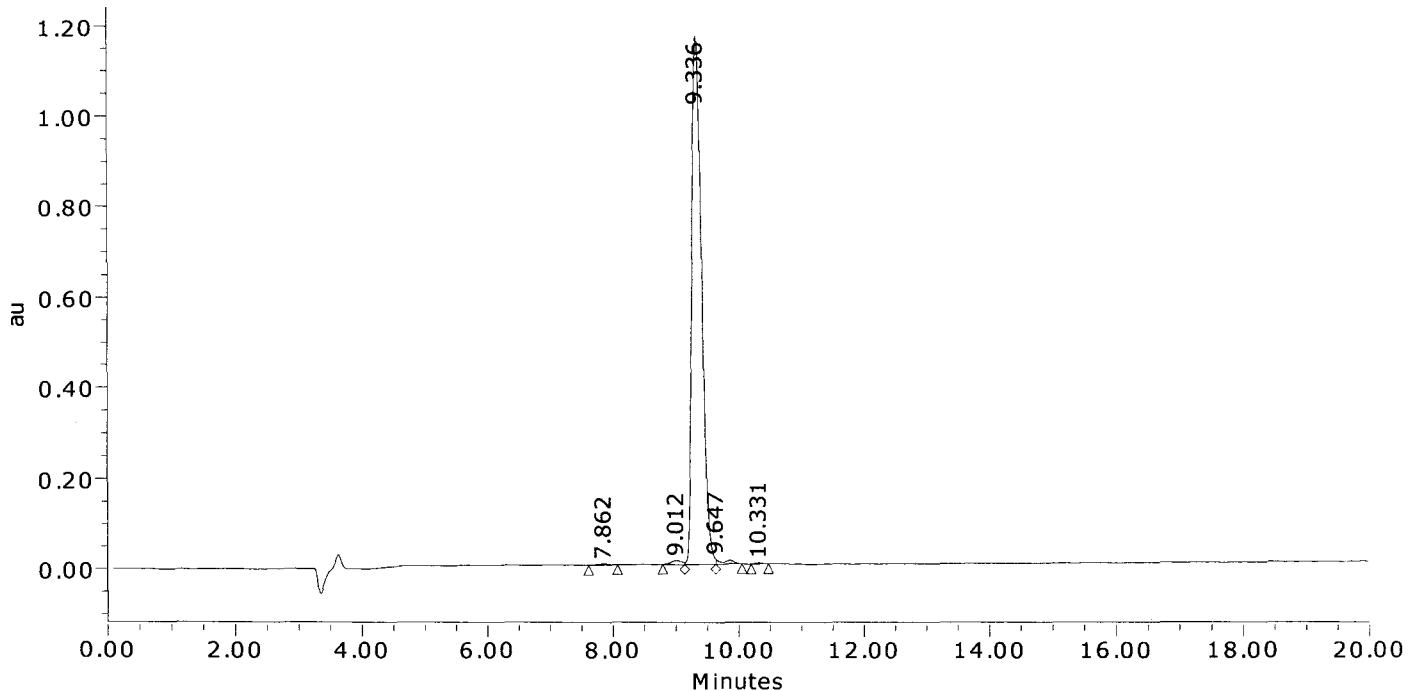
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344828/SW05026T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 9:53:26 CST  
Sample ID: 344828 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344828\_A Final\_PDA  
Date Acquired: 5/12/2008 19:53:01 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.3	7.862	36944	2770
2	0.8	9.012	97460	8409
3	97.9	9.336	12626200	1167422
4	0.9	9.647	118872	11016
5	0.1	10.331	18428	2276
<b>Sum</b>	<b>100.00</b>		<b>12897904</b>	<b>1191892.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344828**

**Lot # : SW05026T**

**Chemist : Yan Li**

Date Acquired :

5/12/2008 19:53:01 CST

Expected MS :

MW: 1793.2

Acq. Method Set :

Import

Processing Method :

344828\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

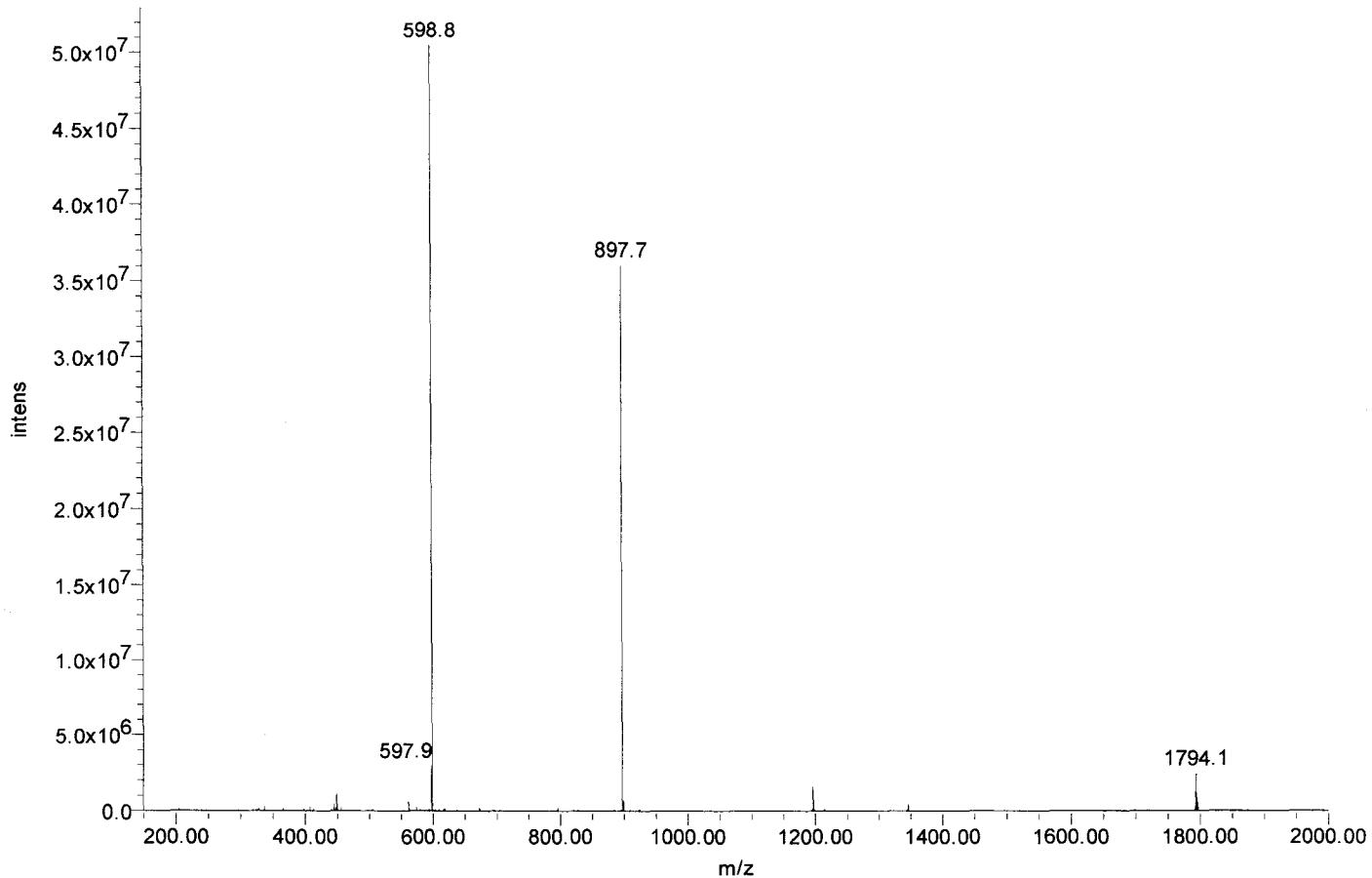
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #89  
IYKVLQPQGWKGSPA  
Cat#5798 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344829                   **Lot #:** SW05021T

**Sequence:** Ile-Tyr-Lys-Val-Leu-Pro-Gln-Gly-Trp-Lys-Gly-Ser-Pro-Ala-Ile

**Molecular Weight:** 1657.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 82.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/12/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Leu	1.00	0.94	Trp	1.00	0.00 *1
Glx	1.00	1.01		Lys	2.00	1.85	Tyr	1.00	0.89
Gly	2.00	1.90		Pro	2.00	1.99	Val	1.00	0.95
Ile	2.00	1.80		Ser	1.00	0.80			

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

*Yanz Li*  
Quality Control Department

Date: 05/14/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

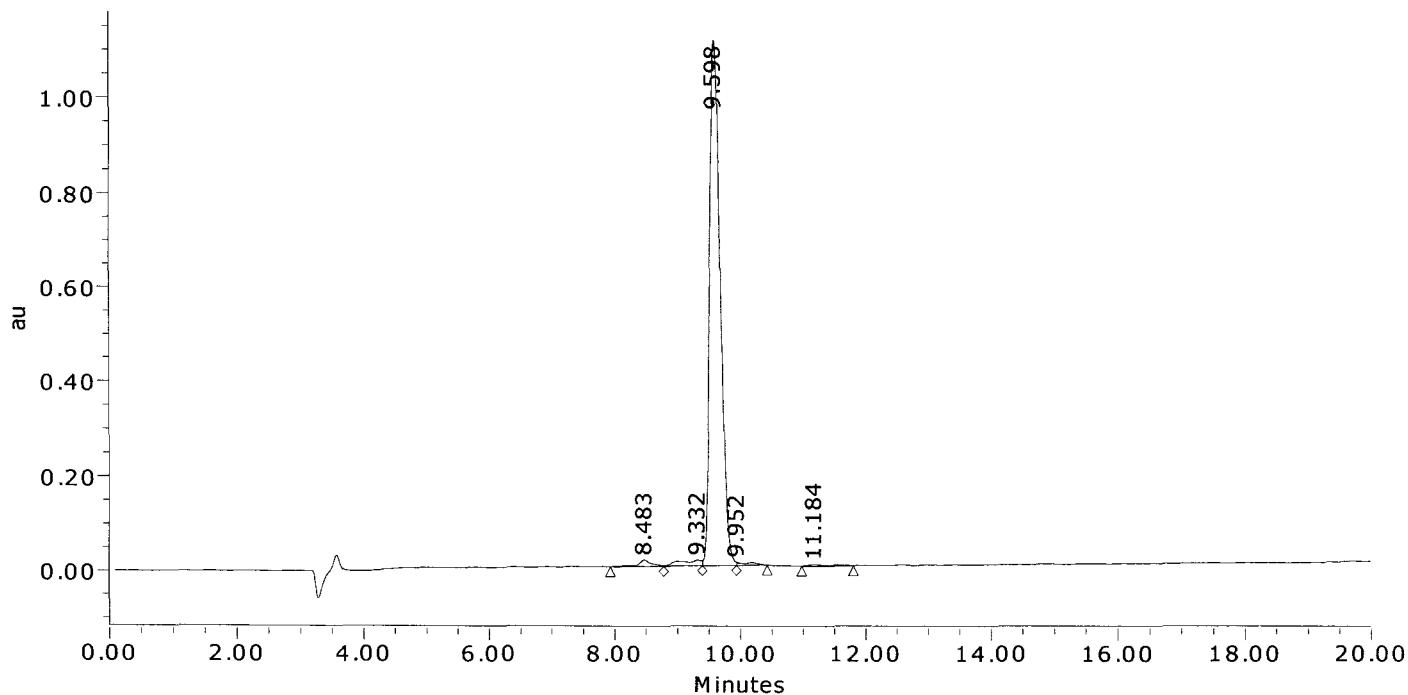
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344829/SW05021T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/13/2008 10:41:54 CST  
Sample ID: 344829 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344829\_A Final\_PDA  
Date Acquired: 5/12/2008 18:00:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	1.6	8.483	217333	14196
2	2.1	9.332	288020	11796
3	95.1	9.598	13007851	1109071
4	0.8	9.952	105932	6574
5	0.5	11.184	63937	3114
Sum	100.00		13683072	1144750.7

# American Peptide Company, Inc.

## MS Analysis Report

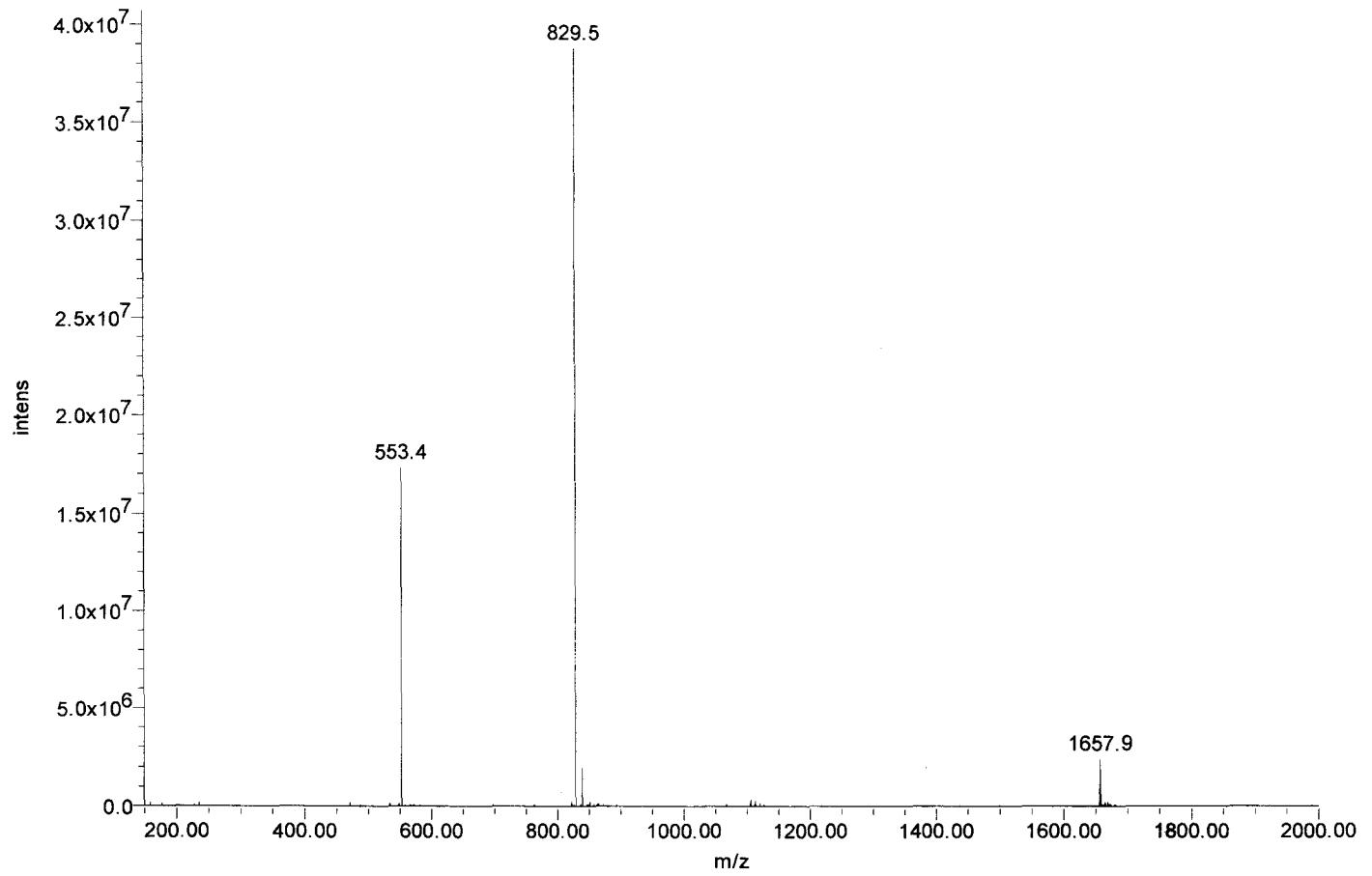
Sample ID:

344829

Lot # : SW05021T

Chemist : Yan Li

Date Acquired : 5/13/2008 13:19:29 CST  
Expected MS : MW: 1657.0  
Acq. Method Set : Import  
Processing Method : 344829\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #90**  
LPQGWKGSPAIFQYT  
Cat#5799 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00	Leu	1.00	0.95	Ser	1.00	0.88
Glx	2.00	2.21	Lys	1.00	0.94	Thr	1.00	0.96
Gly	2.00	1.88	Phe	1.00	0.93	Trp	1.00	0.00
Ile	1.00	0.90	Pro	2.00	1.94	Tyr	1.00	0.95

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/20/08  
**Quality Control Department**

## Quality Control Department

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Sunnyvale, CA 94086 USA

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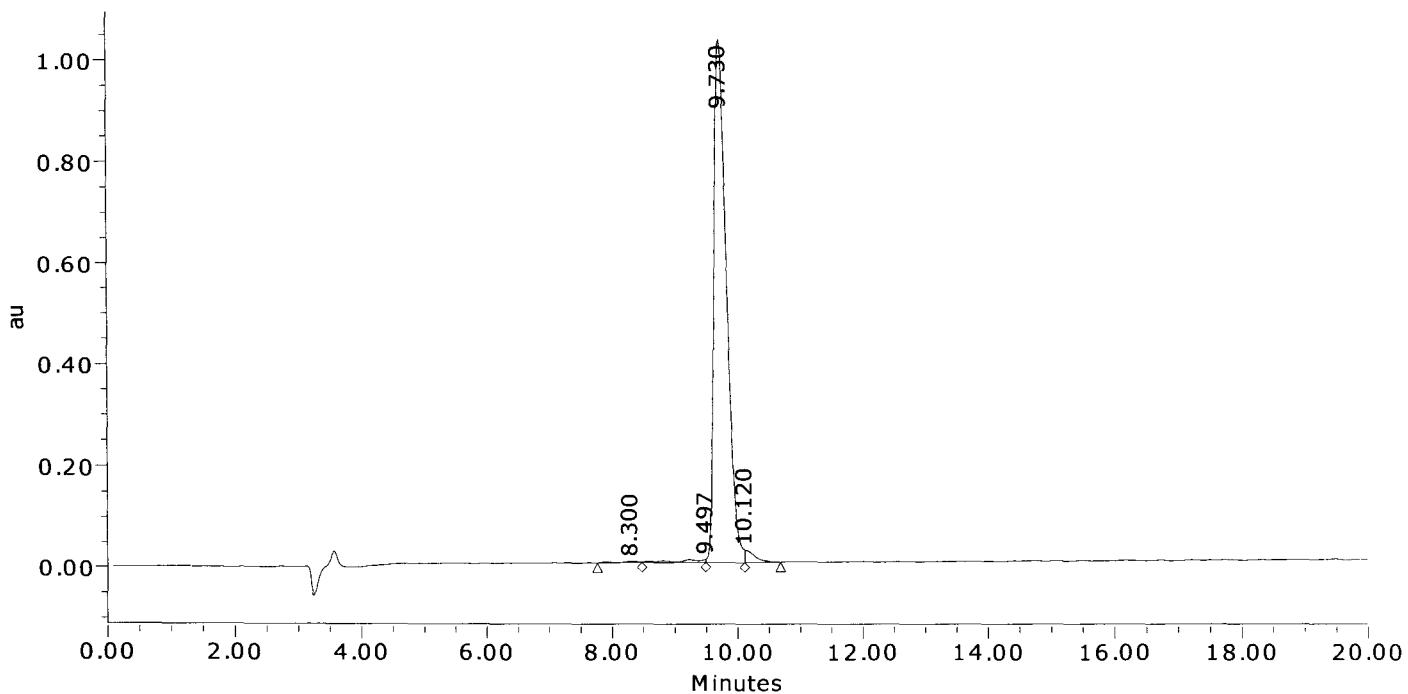
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344830/SW05075T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/15/2008 12:56:01 CST  
Sample ID: 344830 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344830\_A Final\_PDA  
Date Acquired: 5/14/2008 19:09:27 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

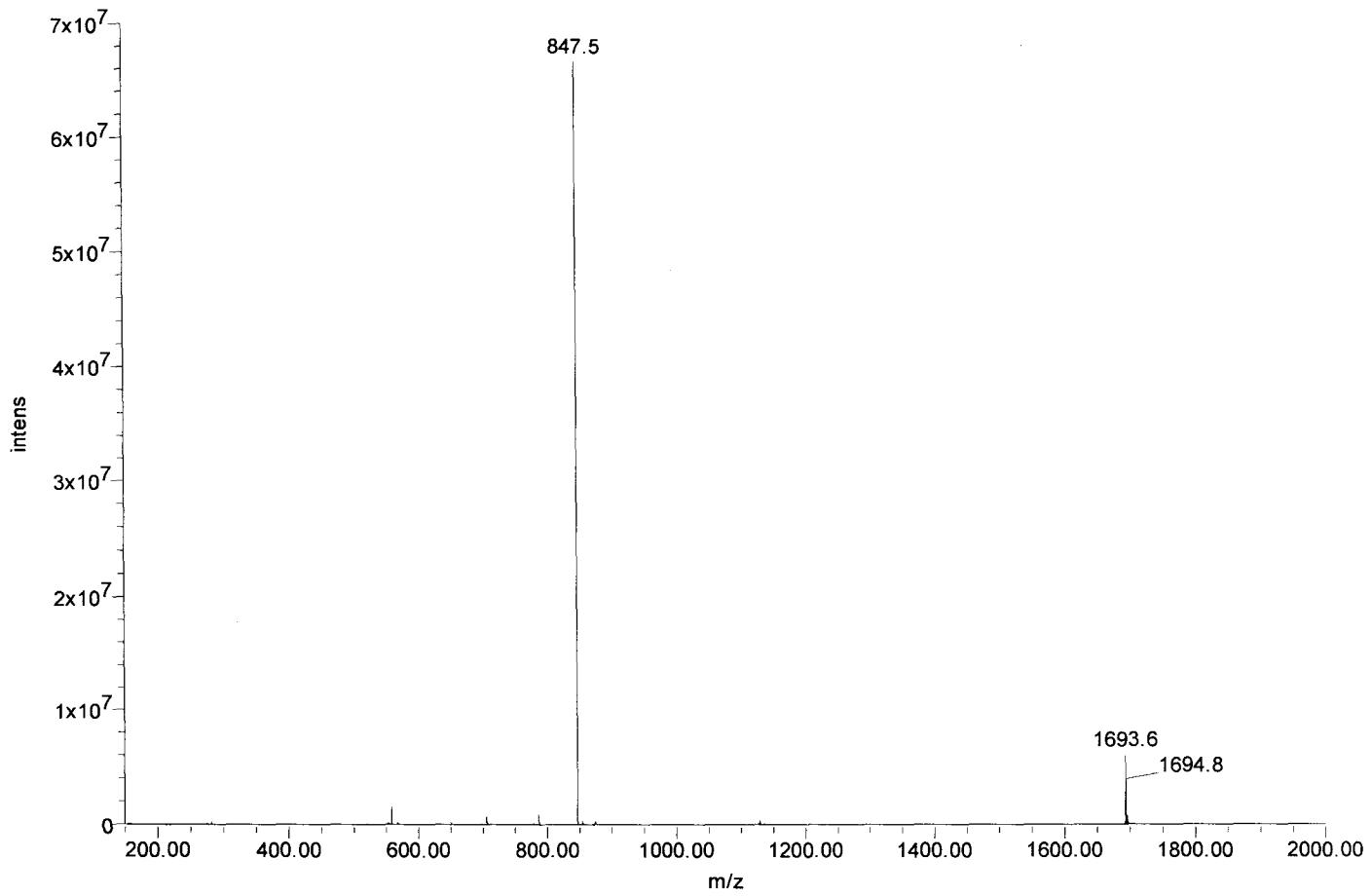


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.4	8.300	56364	3170
2	1.3	9.497	197131	6293
3	96.4	9.730	14296159	1028789
4	1.9	10.120	276350	25351
<b>Sum</b>	<b>100.00</b>		<b>14826005</b>	<b>1063602.9</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344830      **Lot # :** SW05075T      **Chemist :** Yan Li

Date Acquired : 5/14/2008 19:09:27 CST  
Expected MS : MW: 1693.0  
Acq. Method Set : Import  
Processing Method : 344830\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #91  
WKGSPAIFQYTMRHV  
Cat#5800 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344831                   **Lot #:** SW05029T  
**Sequence:** Trp-Lys-Gly-Ser-Pro-Ala-Ile-Phe-Gln-Tyr-Thr-Met-Arg-His-Val  
**Molecular Weight:** 1821.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/13/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Ile	1.00	0.97		Ser	1.00	0.87	
Arg	1.00	1.00		Lys	1.00	0.99		Thr	1.00	0.97	
Glx	1.00	1.03		Met	1.00	1.03		Trp	1.00	0.00	*1
Gly	1.00	1.00		Phe	1.00	0.99		Tyr	1.00	1.08	
His	1.00	0.97		Pro	1.00	1.04		Val	1.00	0.98	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/15/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

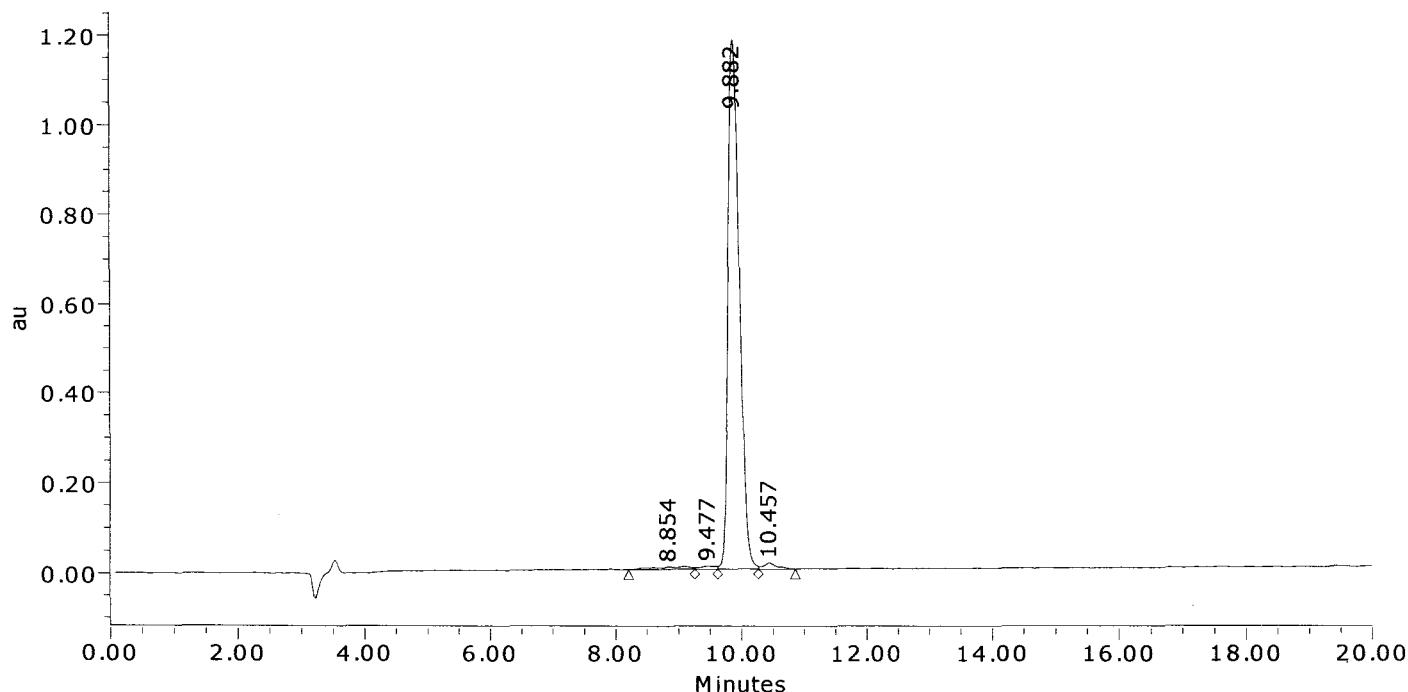
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344831/SW05029T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/13/2008 12:21:39 CST
Sample ID:	344831	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344831_A Final_PDA
Date Acquired:	5/13/2008 9:14:56 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	1.5	8.854	227064	5869
2	0.7	9.477	111851	6703
3	96.4	9.882	14681709	1179442
4	1.3	10.457	204074	13158
<b>Sum</b>	<b>100.00</b>		<b>15224698</b>	<b>1205172.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344831**

**Lot # : SW05029T**

**Chemist : Yan Li**

Date Acquired :

5/13/2008 9:14:56 CST

Expected MS :

MW: 1821.2

Acq. Method Set :

Import

Processing Method :

344831\_A Final\_MS

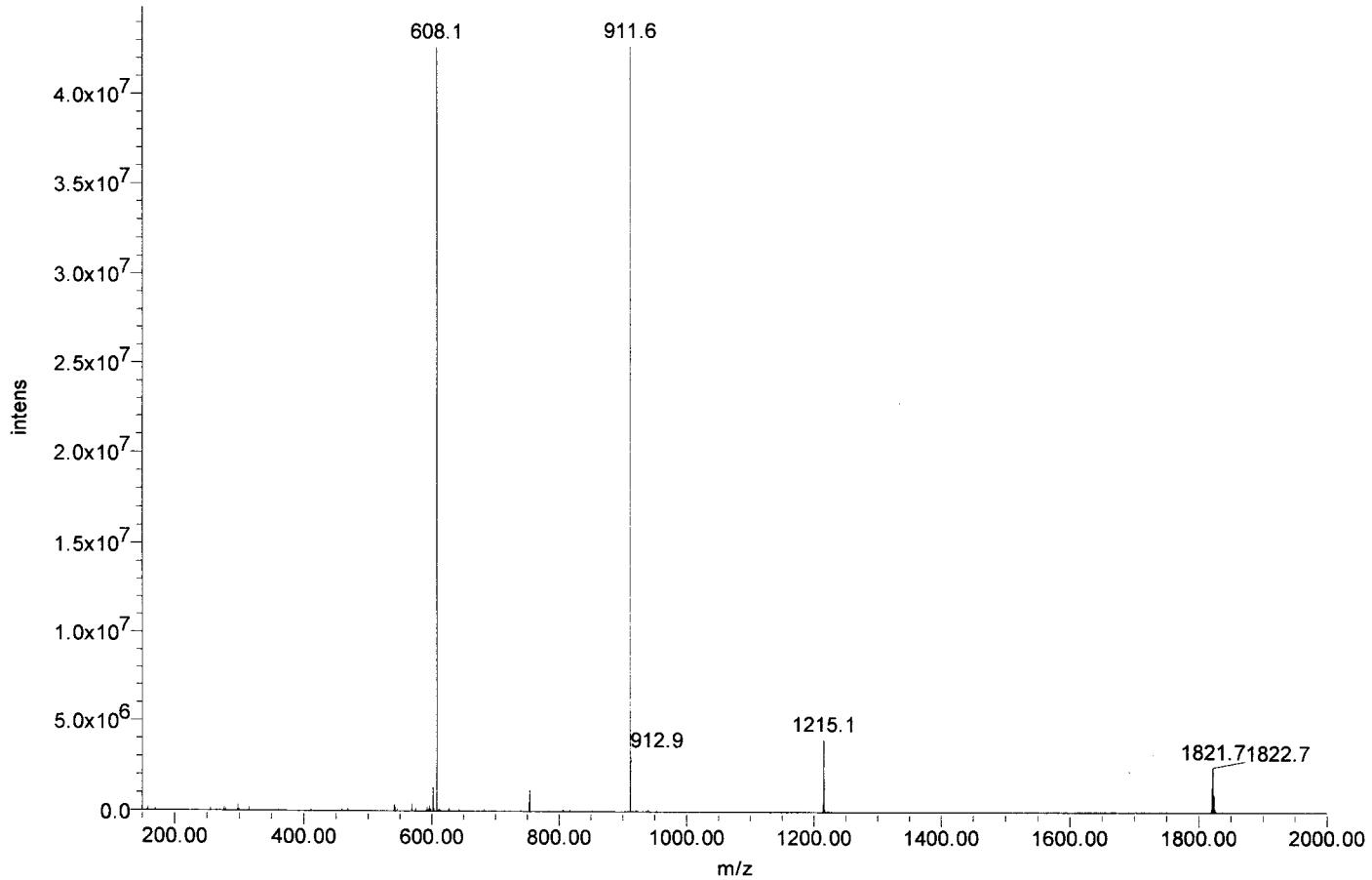
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time : 25.0 Minutes

Flow rate : 1.0 mL/min

Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #92  
PAIFQYTMRHVLEPF  
Cat#5801 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344832                   **Lot #:** SW05165T

**Sequence:** Pro-Ala-Ile-Phe-Gln-Tyr-Thr-Met-Arg-His-Val-Leu-Glu-Pro-Phe

**Molecular Weight:** 1849.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 78.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.96		Ile	1.00	0.92		Pro	2.00	1.98	
Arg	1.00	1.00		Leu	1.00	1.02		Thr	1.00	0.99	
Glx	2.00	1.97		Met	1.00	1.00		Tyr	1.00	0.97	
His	1.00	1.02		Phe	2.00	1.97		Val	1.00	0.98	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/26/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

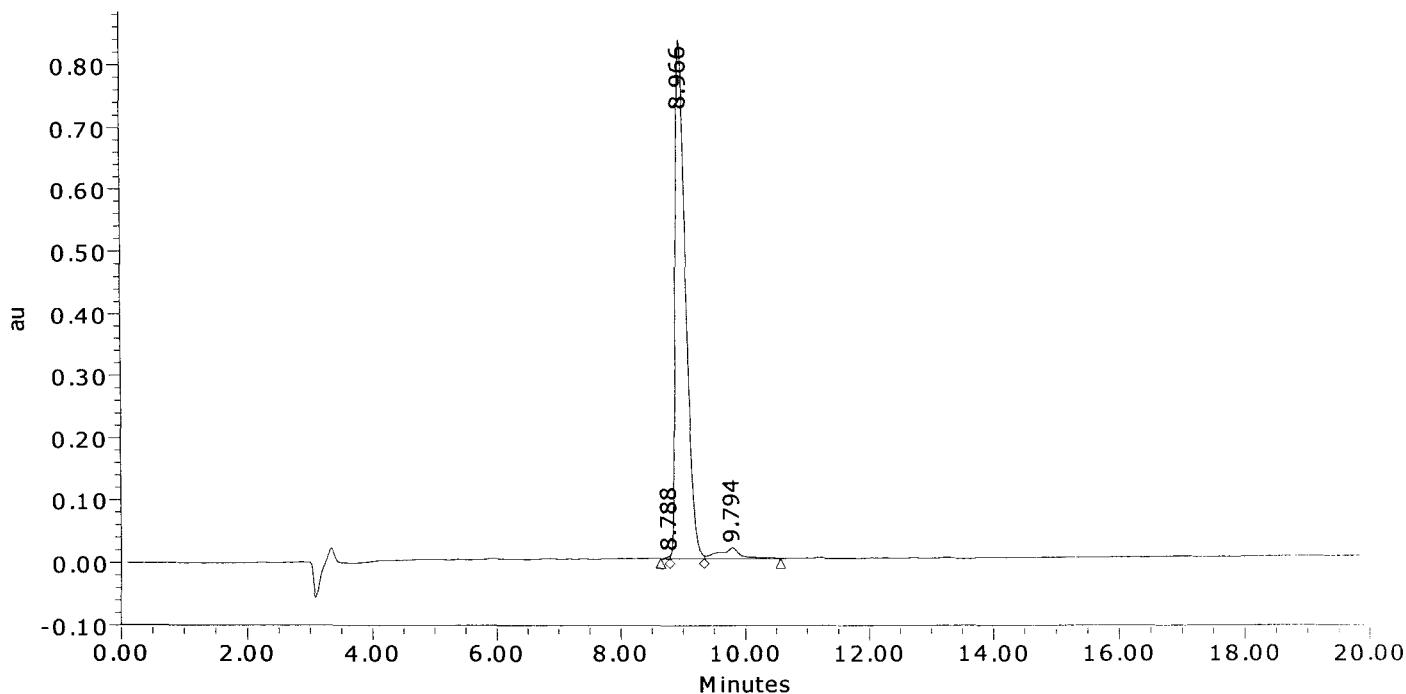
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344832/SW05165T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 14:27:02 CST  
Sample ID: 344832 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344832\_A Final\_PDA  
Date Acquired: 5/23/2008 13:36:15 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 32% -52% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



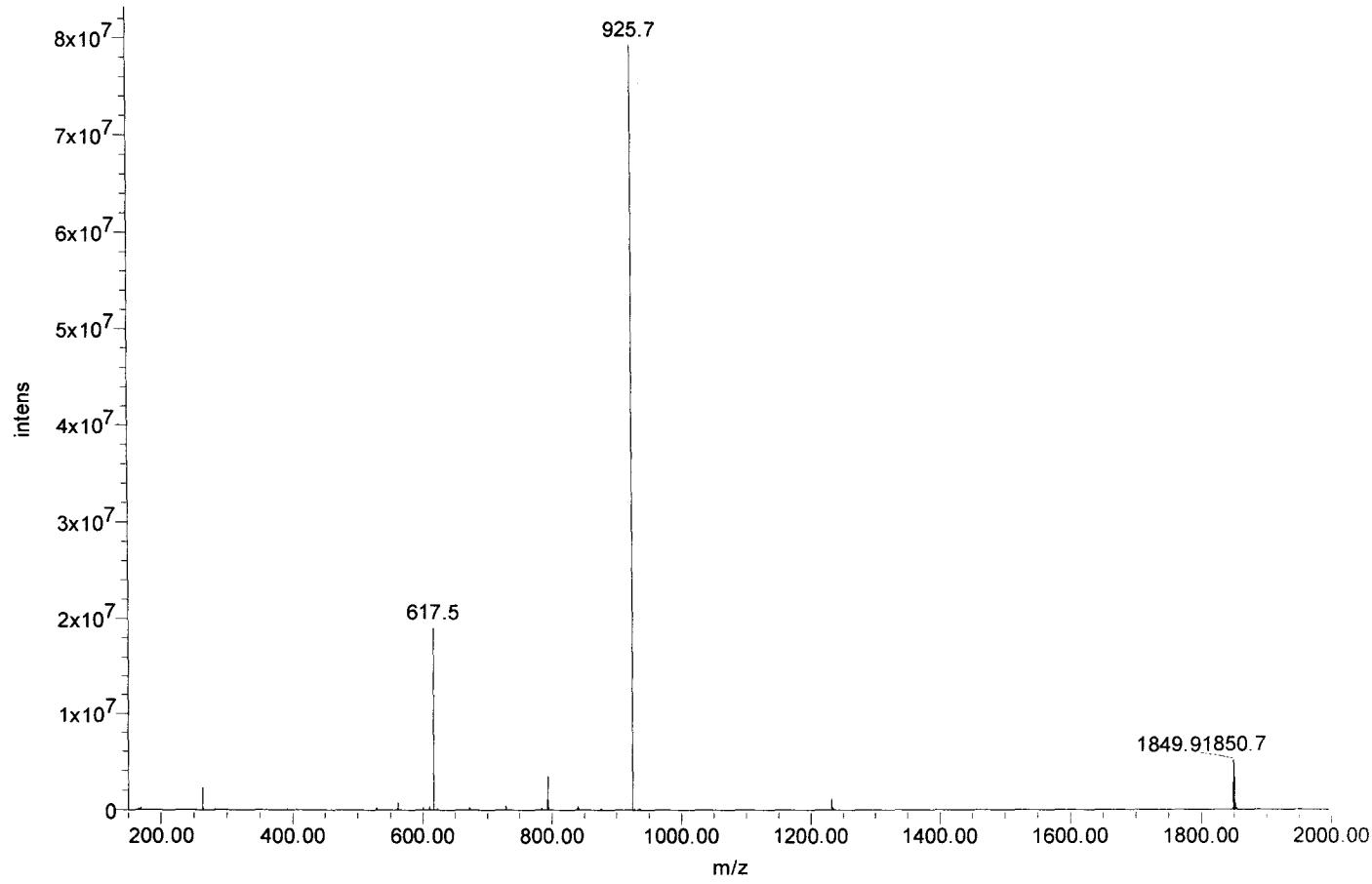
	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.1	8.788	14214	4519
2	95.8	8.966	9618606	832861
3	4.1	9.794	411803	17282
<b>Sum</b>	<b>100.00</b>		<b>10044623</b>	<b>854662.1</b>

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344832      **Lot # :** SW05165T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 13:36:15 CST  
Expected MS : MW: 1849.2  
Acq. Method Set : Import  
Processing Method : 344832\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #93  
QYTMRHVLEPFRKAN  
Cat#5802 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344833                   **Lot #:** SW05167T

**Sequence:** Gln-Tyr-Thr-Met-Arg-His-Val-Leu-Glu-Pro-Phe-Arg-Lys-Ala-Asn

**Molecular Weight:** 1890.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 86.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.4%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.93		Leu	1.00	0.97		Pro	1.00	0.95	
Arg	2.00	2.00		Lys	1.00	0.97		Thr	1.00	0.96	
Asx	1.00	0.89		Met	1.00	1.00		Tyr	1.00	0.96	
Glx	2.00	2.07		Phe	1.00	0.98		Val	1.00	0.95	
His	1.00	0.99									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Yanz Li

Date: 05/28/08

Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

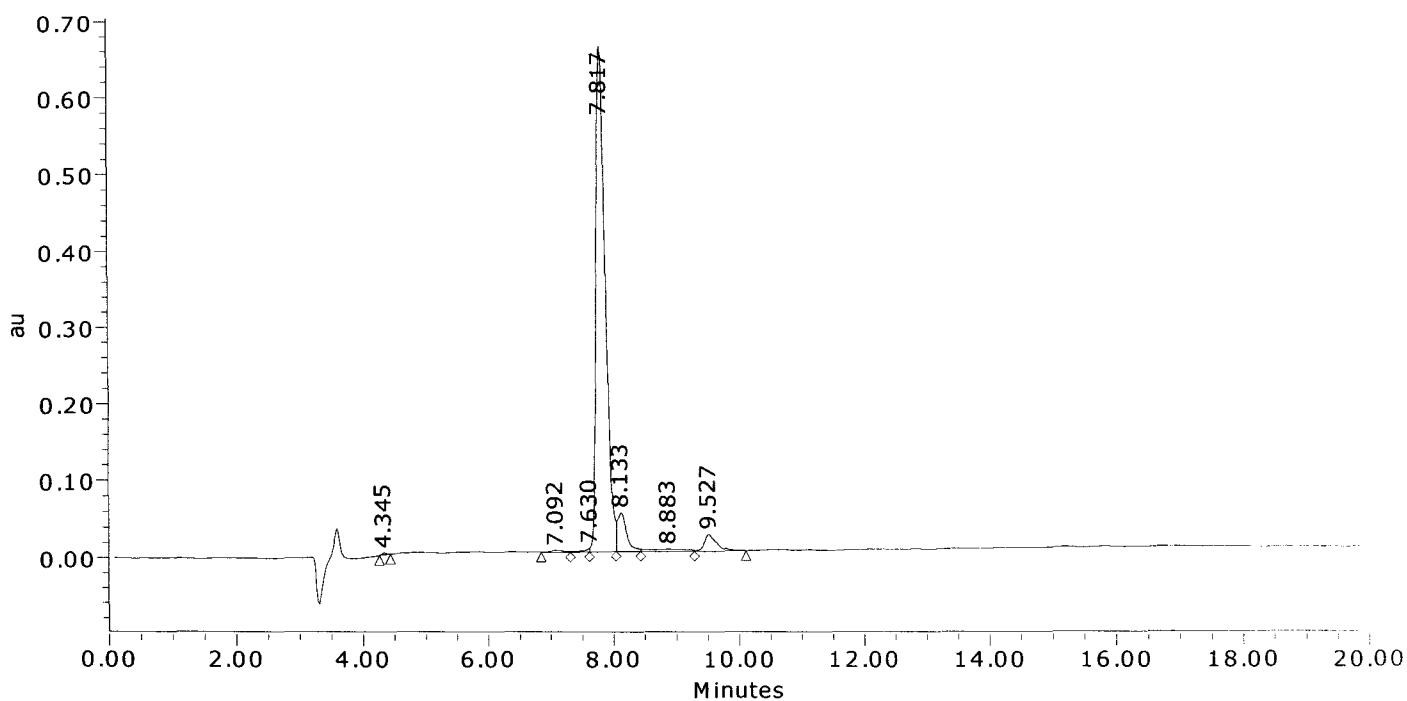
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344833/SW05167T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 9:40:49 CST  
Sample ID: 344833 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344833\_A Final\_PDA  
Date Acquired: 5/22/2008 19:00:40 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

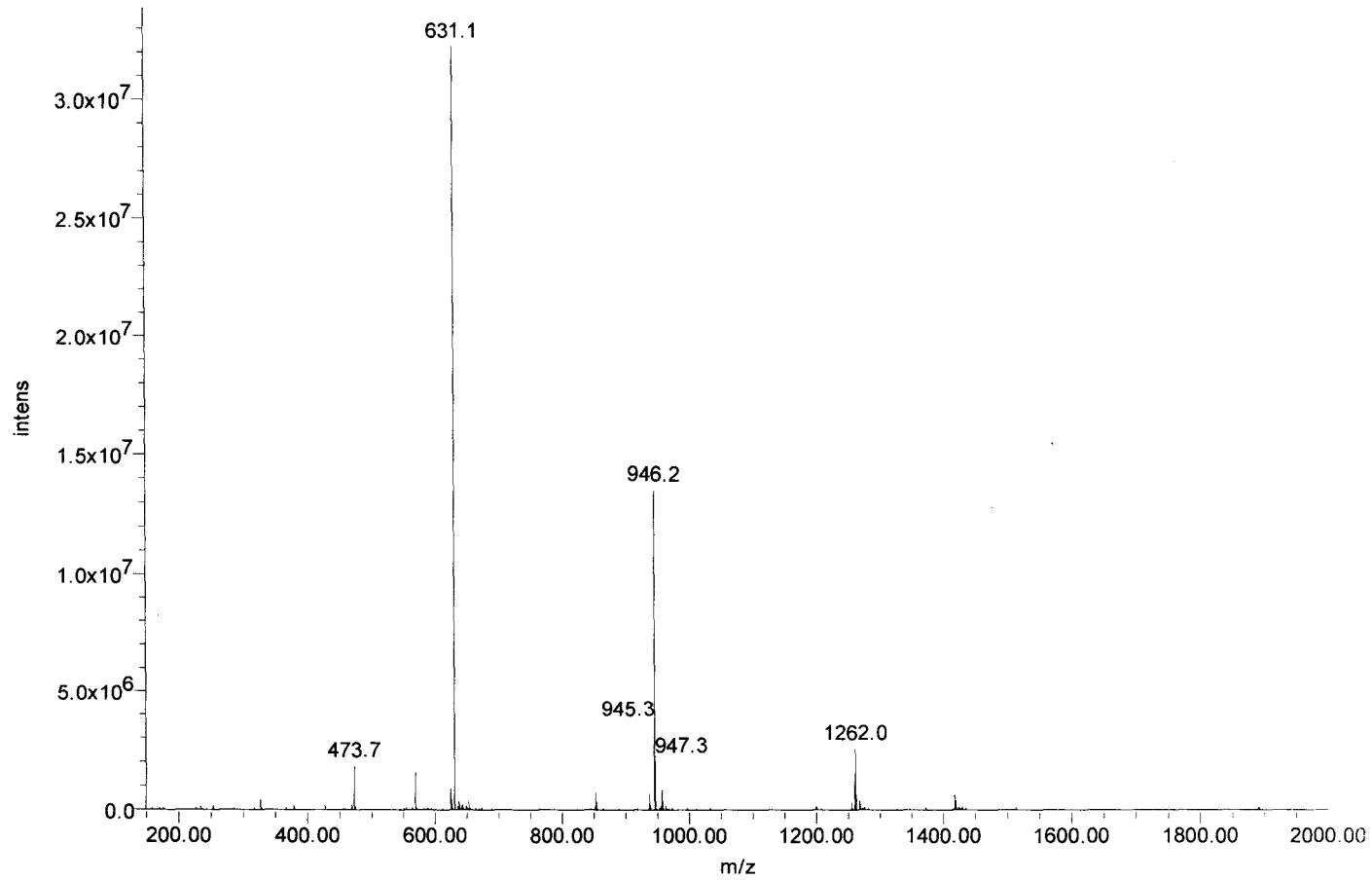


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.2	4.345	13556	2559
2	0.4	7.092	32888	2305
3	0.4	7.630	33365	5181
4	86.6	7.817	6770483	659445
5	6.6	8.133	516825	50219
6	1.7	8.883	130976	3191
7	4.0	9.527	316391	22198
Sum	100.00		7814483	745097.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344833      **Lot # :** SW05167T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 12:24:33 CST  
Expected MS : MW: 1890.2  
Acq. Method Set : Import  
Processing Method : 344833\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #94  
RHVLEPFRKANPDVT  
Cat#5803 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344834                   **Lot #:** SW05139T  
**Sequence:** Arg-His-Val-Leu-Glu-Pro-Phe-Arg-Lys-Ala-Asn-Pro-Asp-Val-Thr  
**Molecular Weight:** 1779.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.0%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 71.0%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
<b>Ala</b>	1.00	1.01		<b>His</b>	1.00	0.98		<b>Pro</b>	2.00	1.88	
<b>Arg</b>	2.00	2.00		<b>Leu</b>	1.00	1.07		<b>Thr</b>	1.00	1.00	
<b>Asx</b>	2.00	1.97		<b>Lys</b>	1.00	0.99		<b>Val</b>	2.00	1.97	
<b>Glx</b>	1.00	1.01		<b>Phe</b>	1.00	1.00					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/25/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

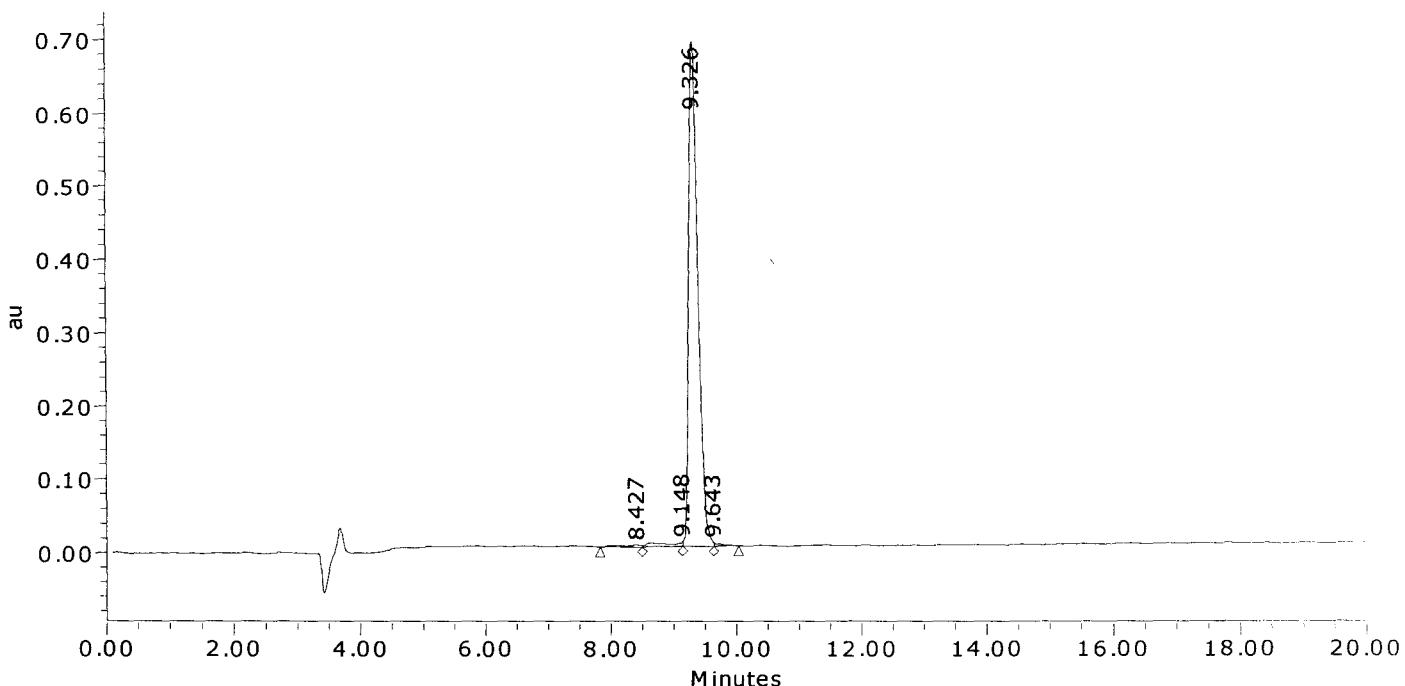
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344834/SW05139T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 15:04:10 CST  
Sample ID: 344834 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344834\_A Final\_PDA  
Date Acquired: 5/22/2008 14:32:47 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.7	8.427	50071	2336
2	1.9	9.148	135545	6106
3	97.0	9.326	7027010	688922
4	0.5	9.643	33677	5179
Sum	100.00		7246303	702542.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344834

Lot # : SW05139T

Chemist : Yan Li

Date Acquired :

5/22/2008 14:32:47 CST

Expected MS :

MW: 1779.0

Acq. Method Set :

Import

Processing Method :

344834\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

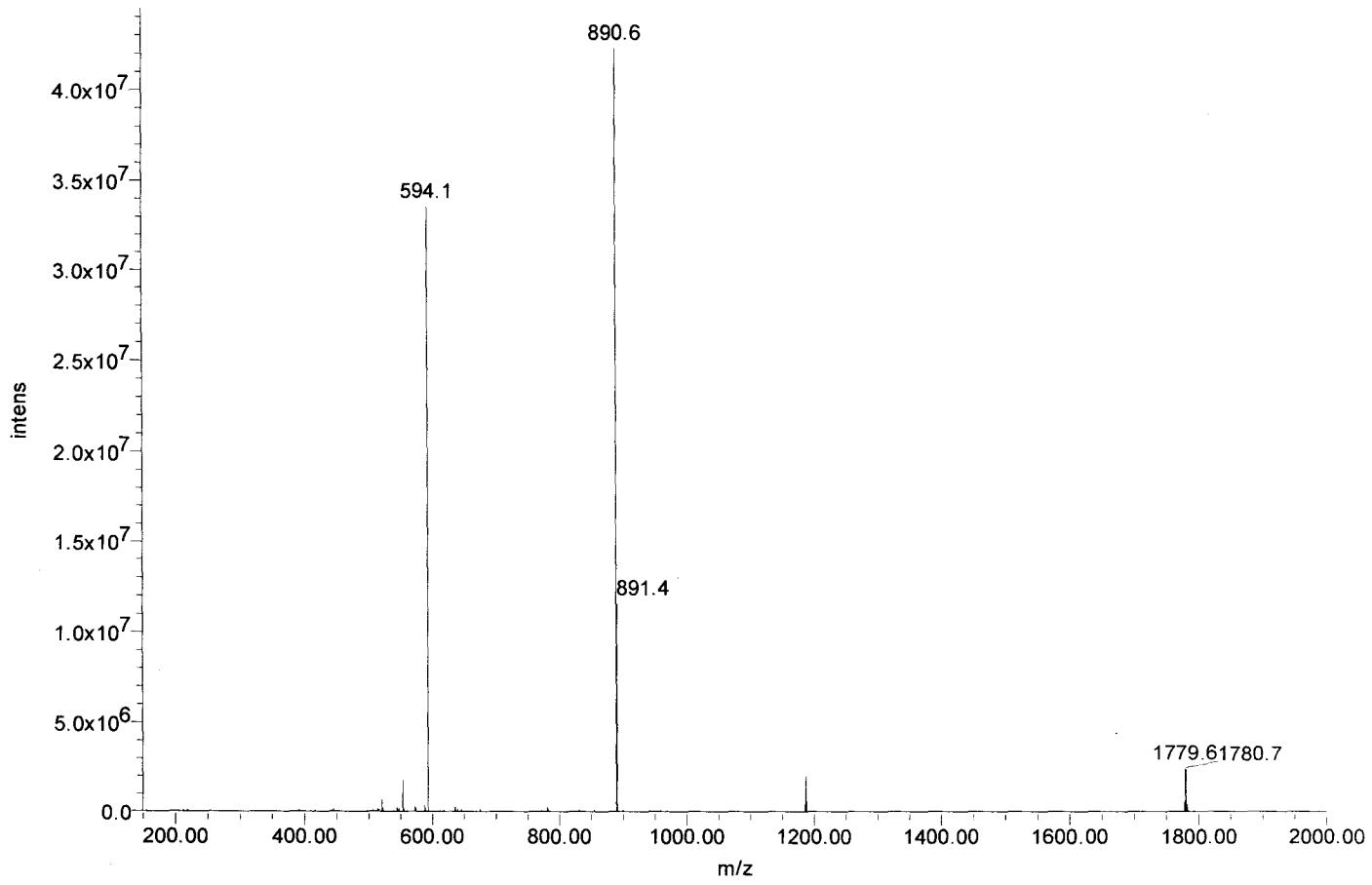
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #95  
EPFRKANPDVILVQY  
Cat#5804 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344835                   **Lot #:** SW05259T  
**Sequence:** Glu-Pro-Phe-Arg-Lys-Ala-Asn-Pro-Asp-Val-Thr-Leu-Val-Gln-Tyr  
**Molecular Weight:** 1777.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/30/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Leu	1.00	1.01		Thr	1.00	1.06	
Arg	1.00	1.00		Lys	1.00	1.00		Tyr	1.00	0.98	
Asx	2.00	2.06		Phe	1.00	1.00		Val	2.00	1.98	
Glx	2.00	2.29		Pro	2.00	2.01					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/05/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

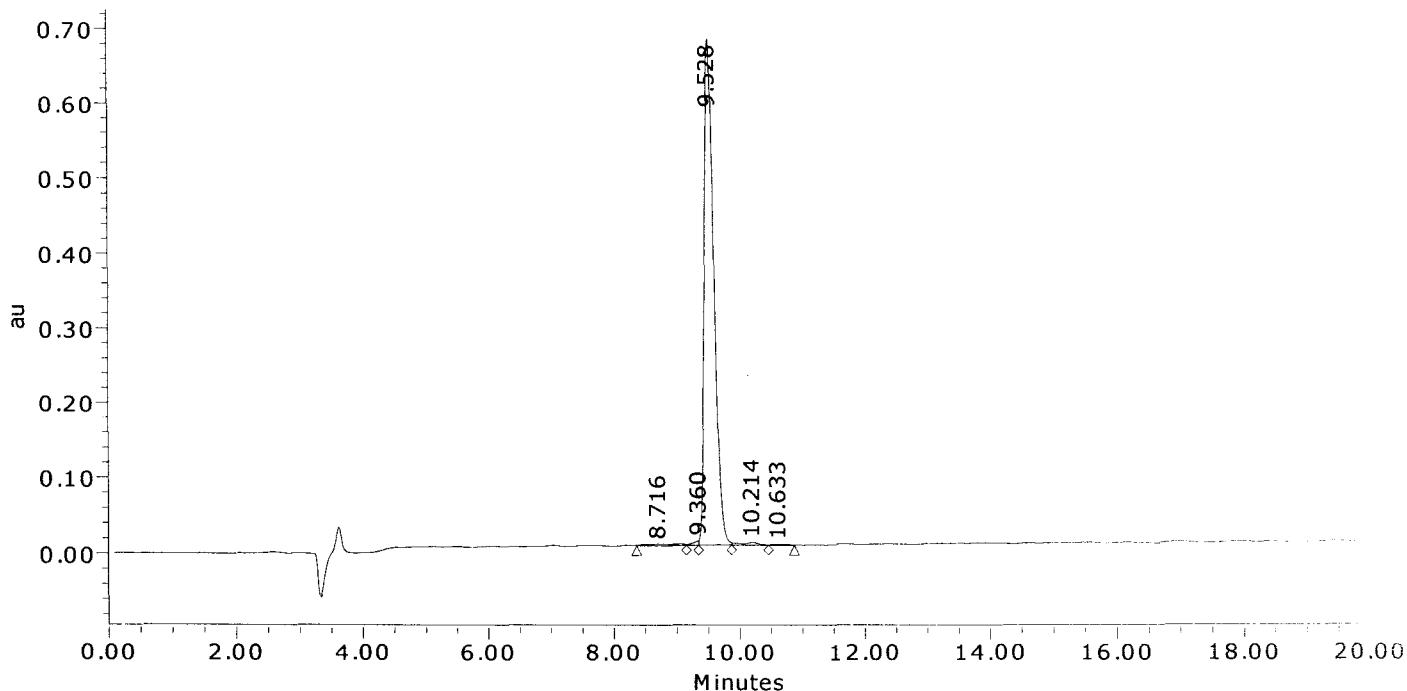
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344835/SW05259T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/2/2008 12:08:37 CST  
Sample ID: 344835 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344835\_A Final\_PDA  
Date Acquired: 5/30/2008 19:15:50 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.8	8.716	56737	1642
2	0.4	9.360	30382	5934
3	97.7	9.528	7170603	675662
4	0.9	10.214	62855	3606
5	0.2	10.633	15264	1160
Sum	100.00		7335842	688005.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344835**

**Lot # : SW05259T**

**Chemist : Yan Li**

Date Acquired :

5/30/2008 19:15:50 CST

Expected MS :

MW: 1777.0

Acq. Method Set :

Import

Processing Method :

344835\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

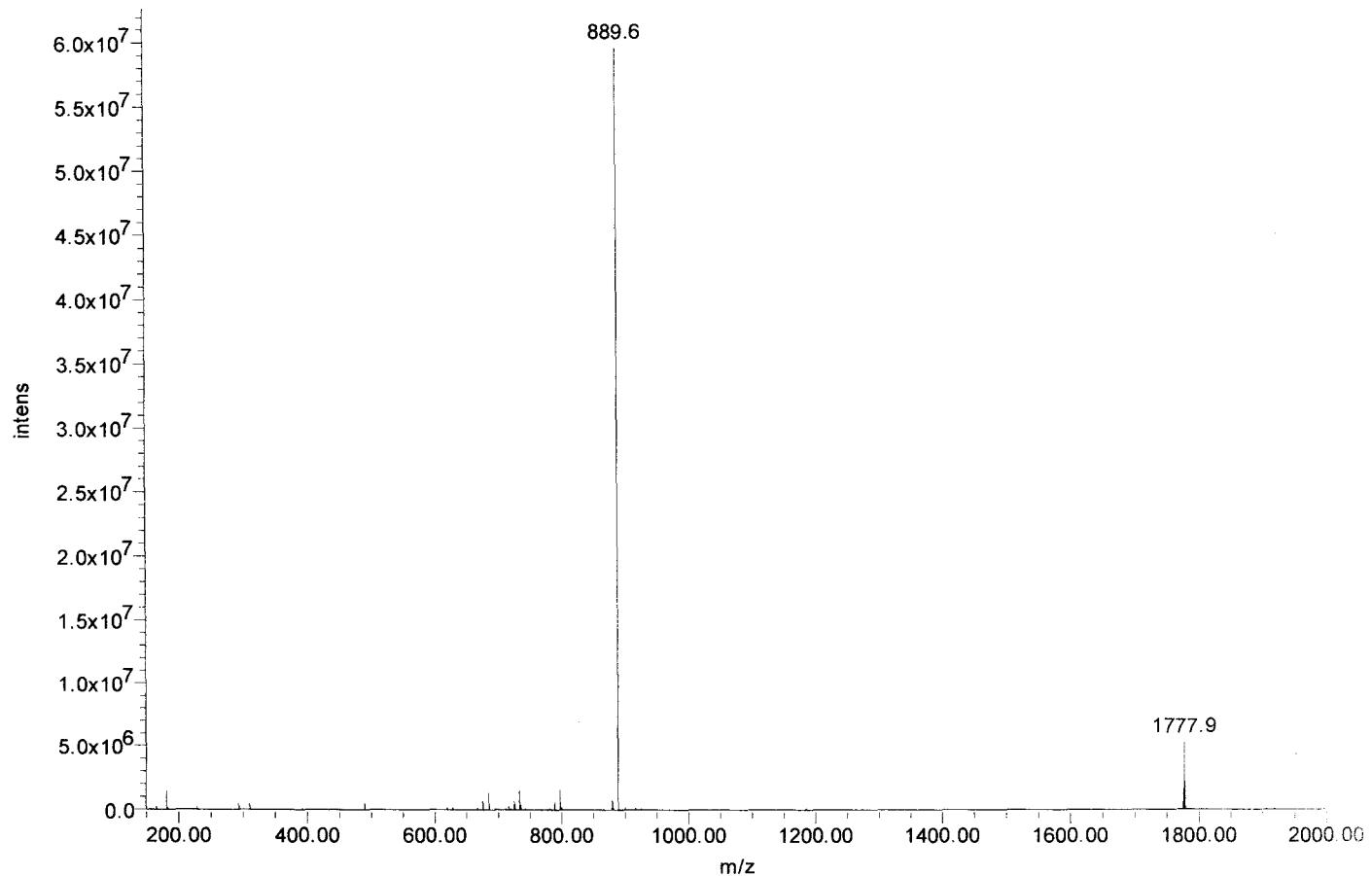
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #96  
KANPDVILVQYMDDI  
Cat#5805 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344836                   **Lot #:** SW06003T

**Sequence:** Lys-Ala-Asn-Pro-Asp-Val-Thr-Leu-Val-Gln-Tyr-Met-Asp-Asp-Ile

**Molecular Weight:** 1722.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.0%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 70.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.90		Leu	1.00	1.00		Thr	1.00	1.06	
Asx	4.00	4.00		Lys	1.00	0.98		Tyr	1.00	0.97	
Glx	1.00	1.15		Met	1.00	1.00		Val	2.00	1.94	
Ile	1.00	0.93		Pro	1.00	0.98					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yan Li'.

Date: 06/05/08

Quality Control Department

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1271 Avenida Chelsea  
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Tel: 760-597-8820 Fax: 760-597-8816

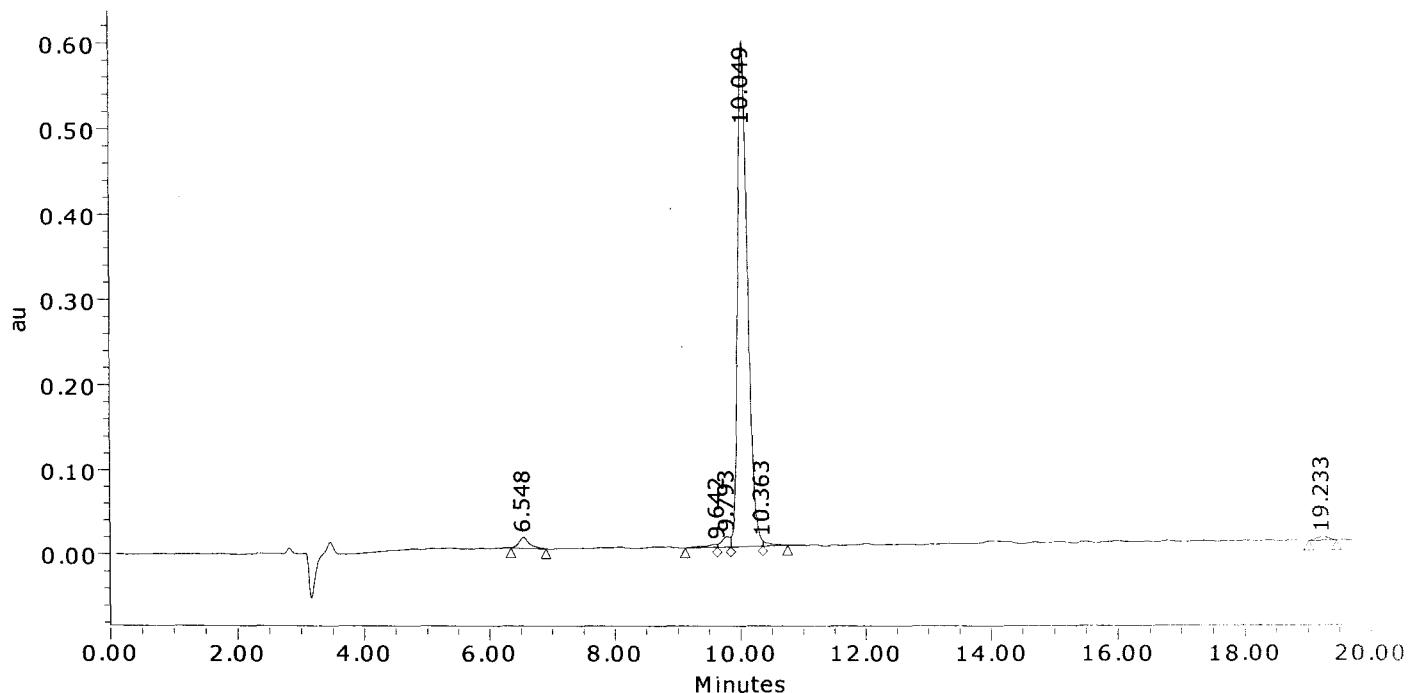
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344836/SW06003T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/3/2008 9:19:09 CST  
Sample ID: 344836 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344836\_A Final\_PDA  
Date Acquired: 6/2/2008 14:23:30 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	2.1	6.548	143967	12860
2	0.7	9.642	51424	3678
3	1.7	9.793	116454	12530
4	94.0	10.049	6496976	594667
5	0.7	10.363	45462	5885
6	0.8	19.233	54318	4244
<b>Sum</b>	<b>100.00</b>		<b>6908601</b>	<b>633864.0</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344836**

**Lot # : SW06003T**

**Chemist : Yan Li**

Date Acquired :

6/2/2008 14:23:30 CST

Expected MS :

MW: 1722.0

Acq. Method Set :

Import

Processing Method :

344836\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

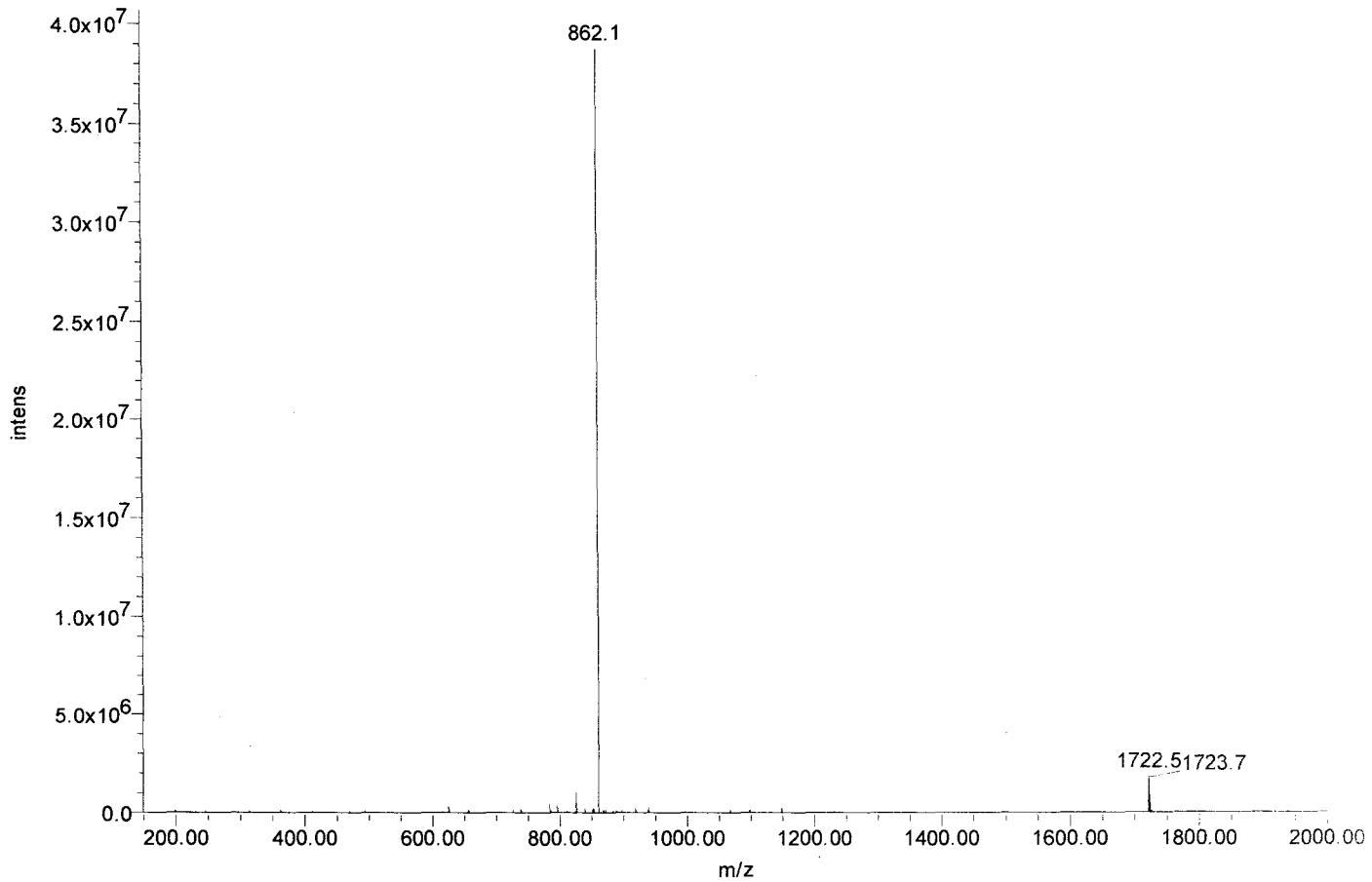
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #97  
DVILVQYMDLILAS  
Cat#5806 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344837                   **Lot #:** SW06015T  
**Sequence:** Asp-Val-Thr-Leu-Val-Gln-Tyr-Met-Asp-Asp-Ile-Leu-Ile-Ala-Ser  
**Molecular Weight:** 1696.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 86.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.05% Ammonia and 30% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 84.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/04/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.10		Leu	2.00	2.00		Thr	1.00	1.03	
Asx	3.00	3.36		Met	1.00	1.02		Tyr	1.00	1.00	
Glx	1.00	1.14		Ser	1.00	1.08		Val	2.00	1.92	
Ile	2.00	1.89									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 06/05/08  
Quality Control Department

AMERICAN PEPTIDE COMPANY, INC.

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

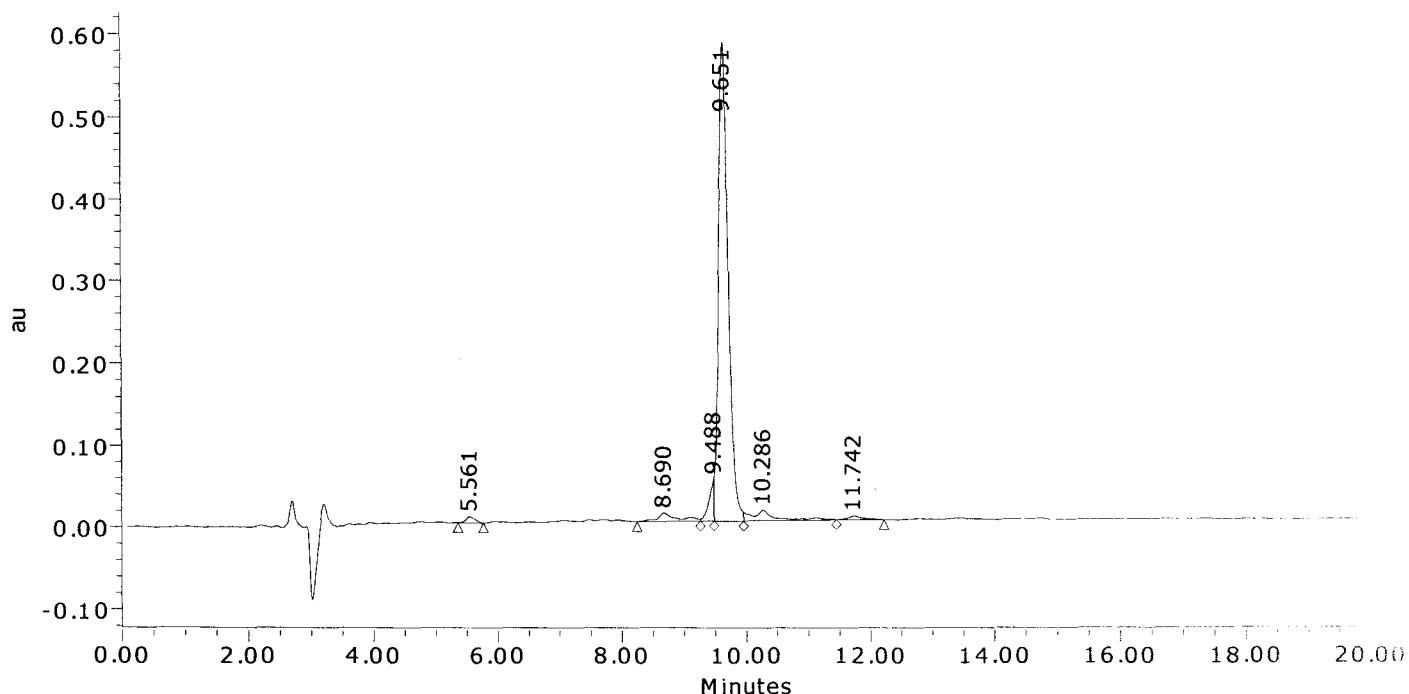
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344837/SW06015T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	6/4/2008 12:43:48 CST
Sample ID:	344837	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344837_A Final_PDA
Date Acquired:	6/4/2008 12:02:14 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

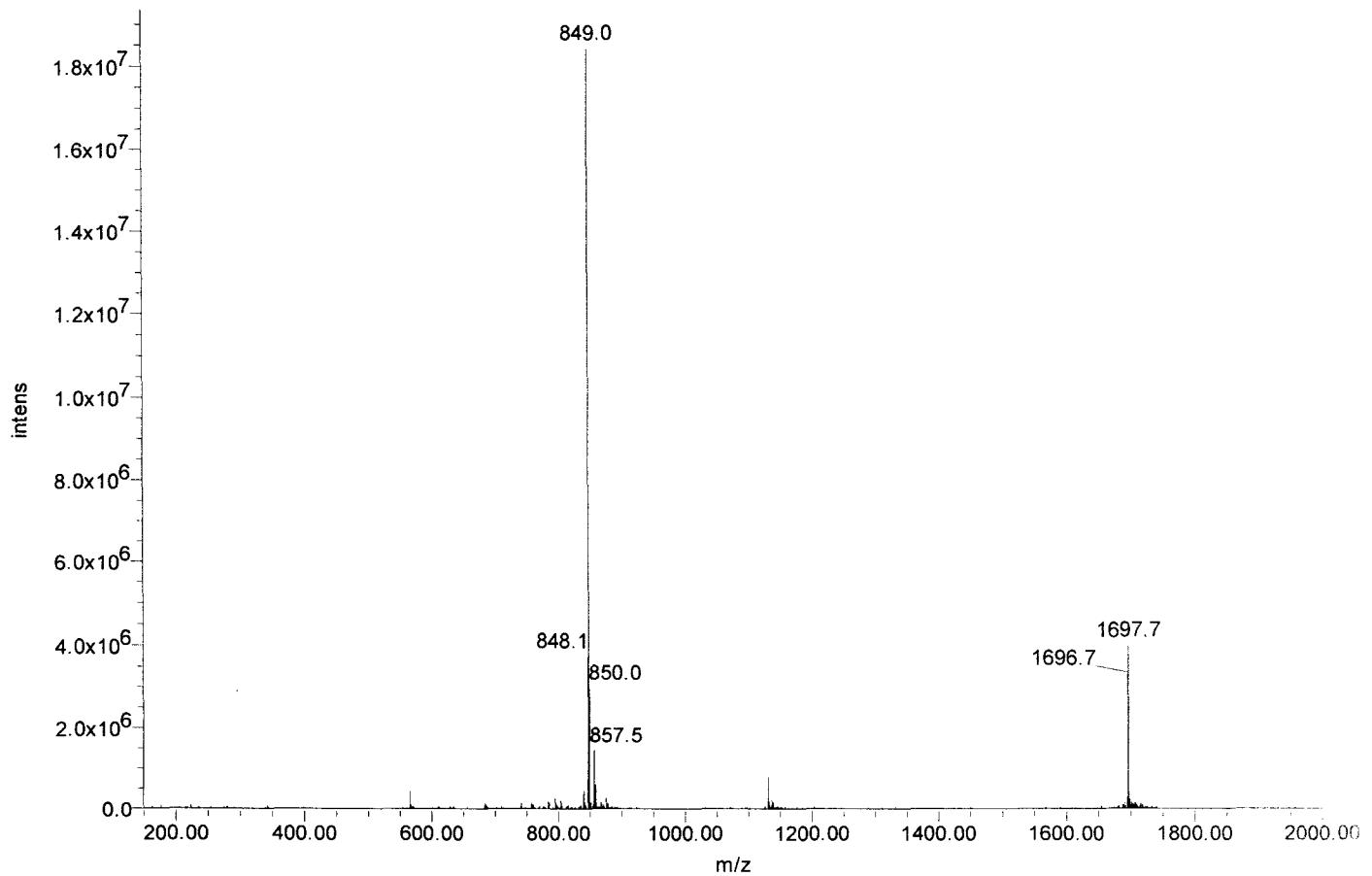
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 37% -57% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.0	5.561	71885	7142
2	3.1	8.690	227360	10592
3	3.5	9.488	254424	51439
4	86.8	9.651	6300101	582812
5	4.6	10.286	331839	12093
6	1.0	11.742	70389	4134
<b>Sum</b>	<b>100.00</b>		<b>7255997</b>	<b>668211.4</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344837</b>	<b>Lot # :</b>	<b>SW06015T</b>	<b>Chemist :</b>	<b>Yan Li</b>
Date Acquired :	6/4/2008 12:32:26 CST				
Expected MS :	MW: 1696.0				
Acq. Method Set :	Import				
Processing Method :	344837_A Final_MS				
Data Path :	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data				
Run Time :	1.0 Minutes				
Flow rate :	1.0 mL/min				
Buffers :	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile				
Instruments :	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000				





## Certificate of Analysis

SIVmac239 Pol #98  
VQYMDILIASDRTID  
Cat#5807 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344838                   **Lot #:** SW06001T  
**Sequence:** Val-Gln-Tyr-Met-Asp-Asp-Ile-Leu-Ile-Ala-Ser-Asp-Arg-Thr-Asp  
**Molecular Weight:** 1755.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.0%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 87.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/02/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.02		Ile	2.00	1.87		Thr	1.00	1.00	
Arg	1.00	0.98		Leu	1.00	0.98		Tyr	1.00	0.94	
Asx	4.00	4.00		Met	1.00	0.97		Val	1.00	0.95	
Glx	1.00	1.06		Ser	1.00	0.87					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yan Li'.

Date: 06/05/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

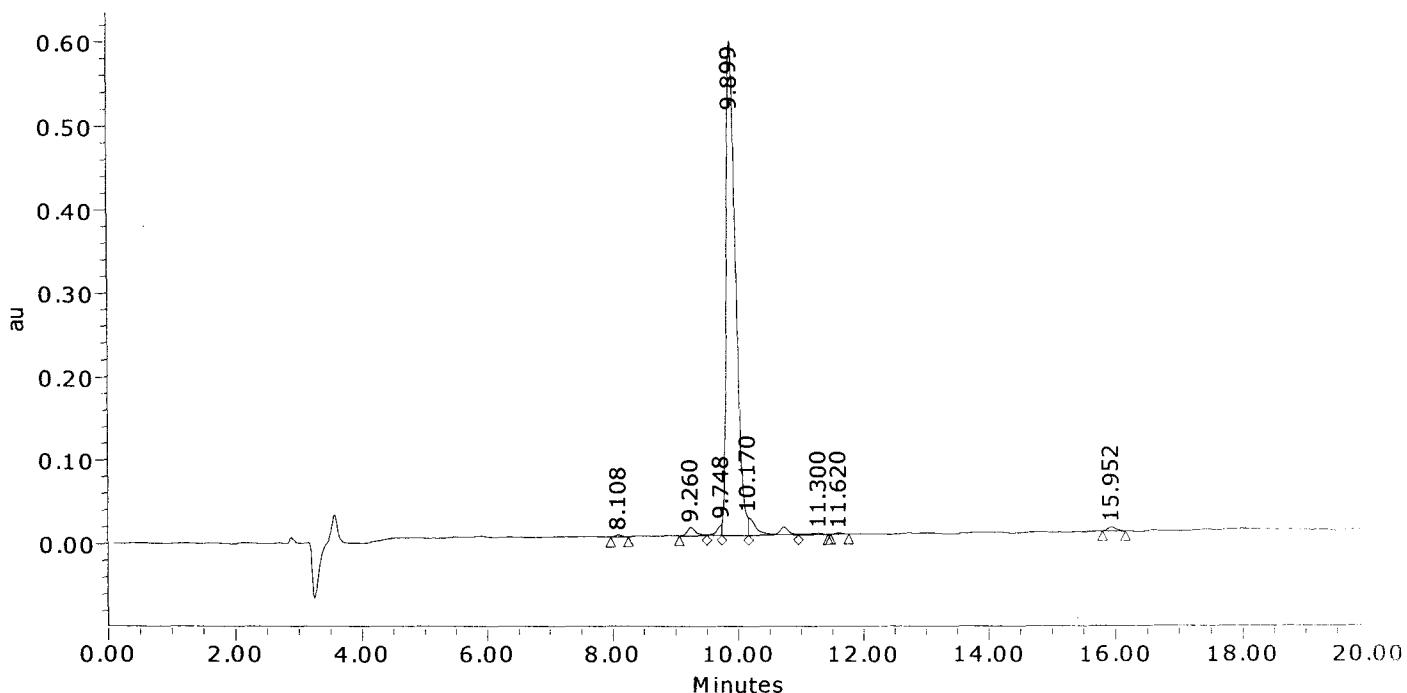
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344838/SW06001T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	6/2/2008 13:47:49 CST
Sample ID:	344838	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344838_A Final_PDA
Date Acquired:	6/2/2008 13:10:54 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.3	8.108	16847	2298
2	1.4	9.260	95091	10194
3	0.9	9.748	61921	13688
4	92.0	9.899	6110424	591161
5	4.1	10.170	269525	21519
6	0.5	11.300	31298	2099
7	0.2	11.620	11879	1386
8	0.7	15.952	44189	4864
<b>Sum</b>	<b>100.00</b>		<b>6641173</b>	<b>647208.9</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344838**

Lot # : **SW06001T**

Chemist : **Yan Li**

Date Acquired :

6/2/2008 13:10:54 CST

Expected MS :

MW: 1755.0

Acq. Method Set :

Import

Processing Method :

344838\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

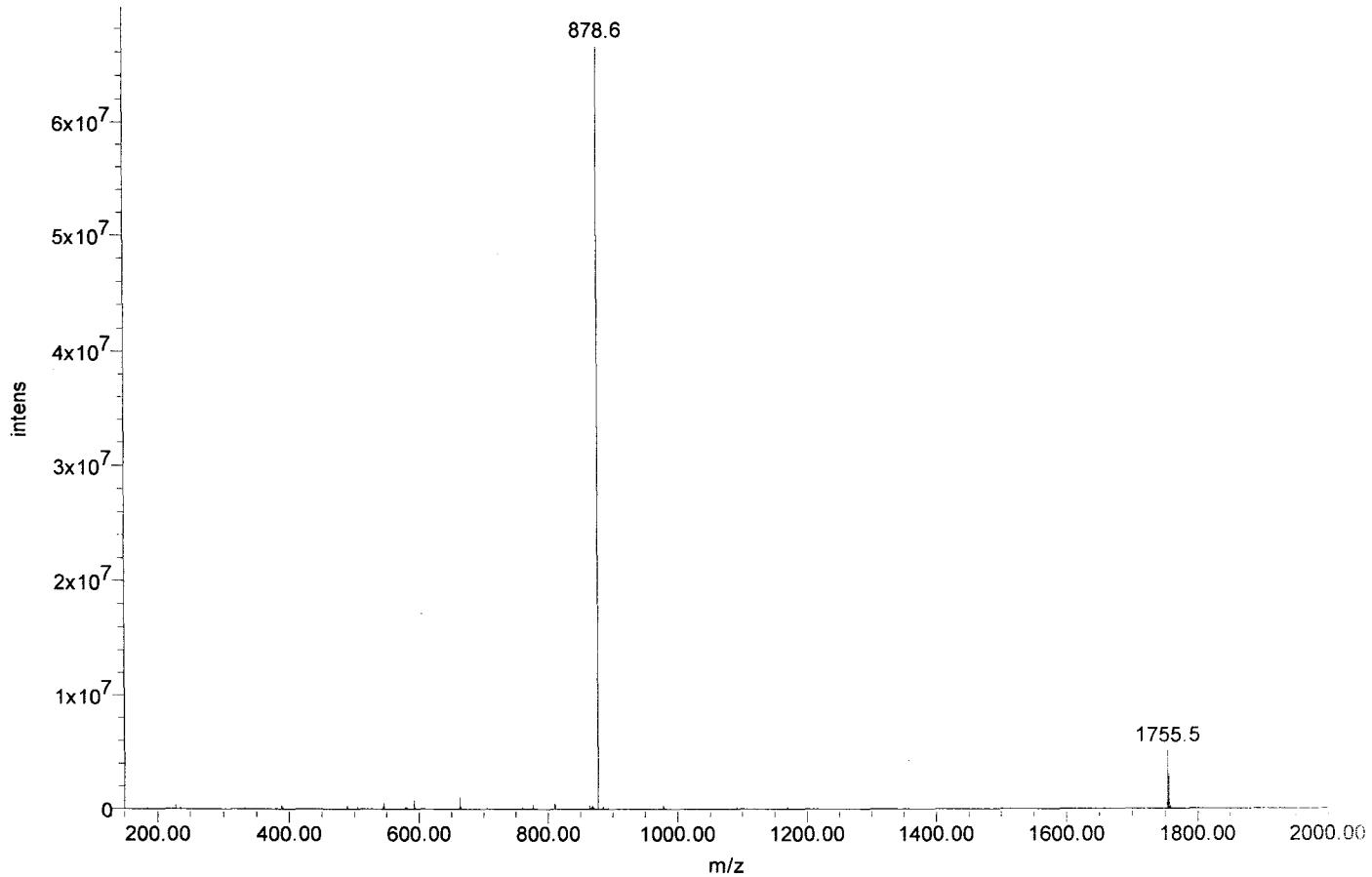
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #99  
DDILIASDRITDLEHD  
Cat#5808 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344839                   **Lot #:** SW05252T

**Sequence:** Asp-Asp-Ile-Leu-Ile-Ala-Ser-Asp-Arg-Thr-Asp-Leu-Glu-His-Asp

**Molecular Weight:** 1727.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 86.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 76.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.98		Glx	1.00	0.94		Leu	2.00	1.98	
Arg	1.00	1.00		His	1.00	0.85		Ser	1.00	0.87	
Asx	5.00	4.83		Ile	2.00	1.90		Thr	1.00	1.03	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 06/02/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
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Tel: 408-733-7604 Fax: 408-733-7603

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

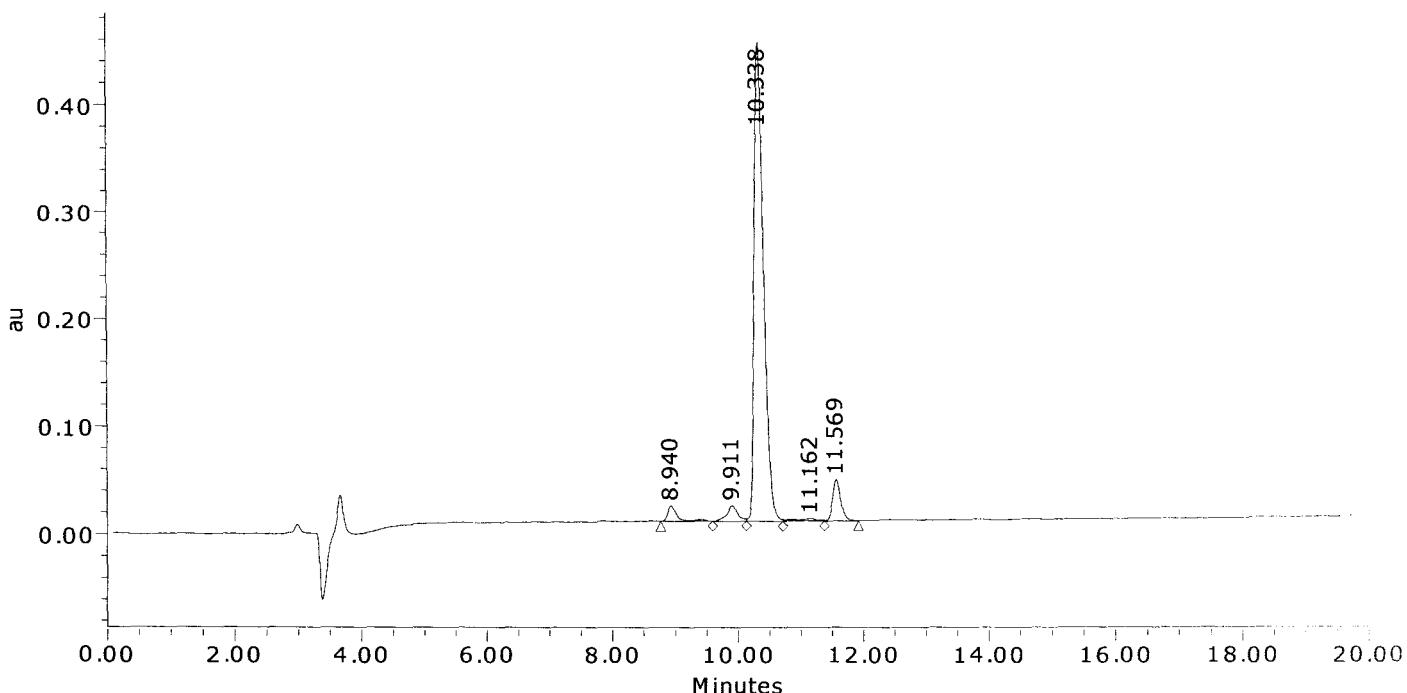
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344839/SW05252T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 17:24:58 CST  
Sample ID: 344839 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344839\_A Final\_PDA  
Date Acquired: 5/29/2008 16:08:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.8	8.940	149857	14186
2	3.2	9.911	171293	14358
3	86.7	10.338	4608391	445508
4	0.9	11.162	47108	2037
5	6.4	11.569	340298	37689
Sum	100.00		5316948	513777.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344839**

**Lot # : SW05252T**

**Chemist : Yan Li**

Date Acquired :

5/29/2008 16:08:26 CST

Expected MS :

MW: 1727.8

Acq. Method Set :

Import

Processing Method :

344839\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

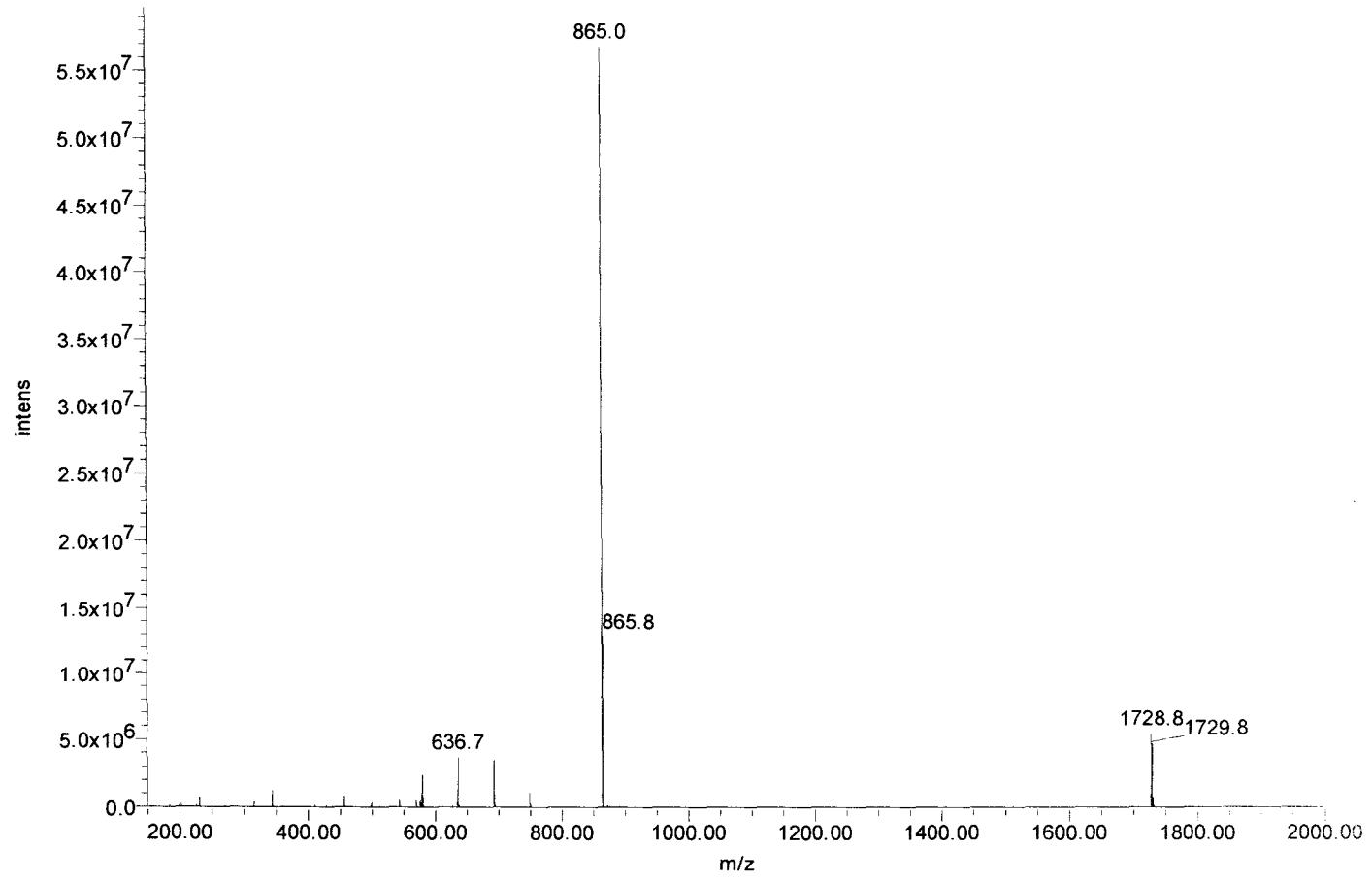
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #100  
IASDRTDLEHDRVVL  
Cat#5809 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344840                   **Lot #:** SW05240T

**Sequence:** Ile-Ala-Ser-Asp-Arg-Thr-Asp-Leu-Glu-His-Asp-Arg-Val-Val-Leu

**Molecular Weight:** 1738.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 92.8%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.96		His	1.00	1.00		Ser	1.00	0.83	
Arg	2.00	2.00		Ile	1.00	0.92		Thr	1.00	1.00	
Asx	3.00	2.96		Leu	2.00	2.05		Val	2.00	1.59	*1
Glx	1.00	0.98									

\*1 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

*Yan Li*

Date: 06/02/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

### Headquarters

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### 1-2-1 Kubogaoka

Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

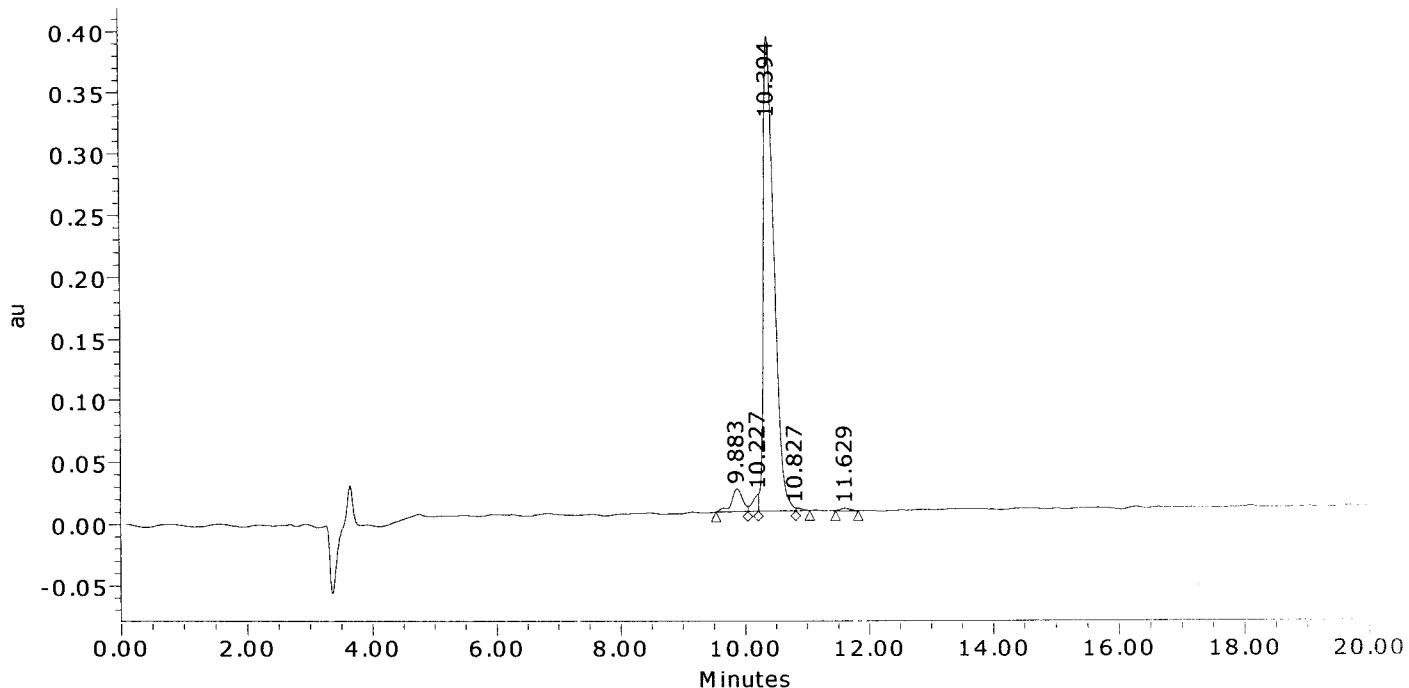
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344840/SW05240T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 10:27:40 CST  
Sample ID: 344840 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344840\_A Final\_PDA  
Date Acquired: 5/28/2008 16:32:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	4.7	9.883	230499	18524
2	1.8	10.227	88517	13863
3	92.8	10.394	4565024	385396
4	0.3	10.827	14986	2282
5	0.4	11.629	20843	2010
Sum	100.00		4919869	422074.8

**American Peptide Company, Inc.  
MS Analysis Report**

**Sample ID:**

**344840**

**Lot # : SW05240T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 16:32:09 CST

Expected MS :

MW: 1738.9

Acq. Method Set :

Import

Processing Method :

344840\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

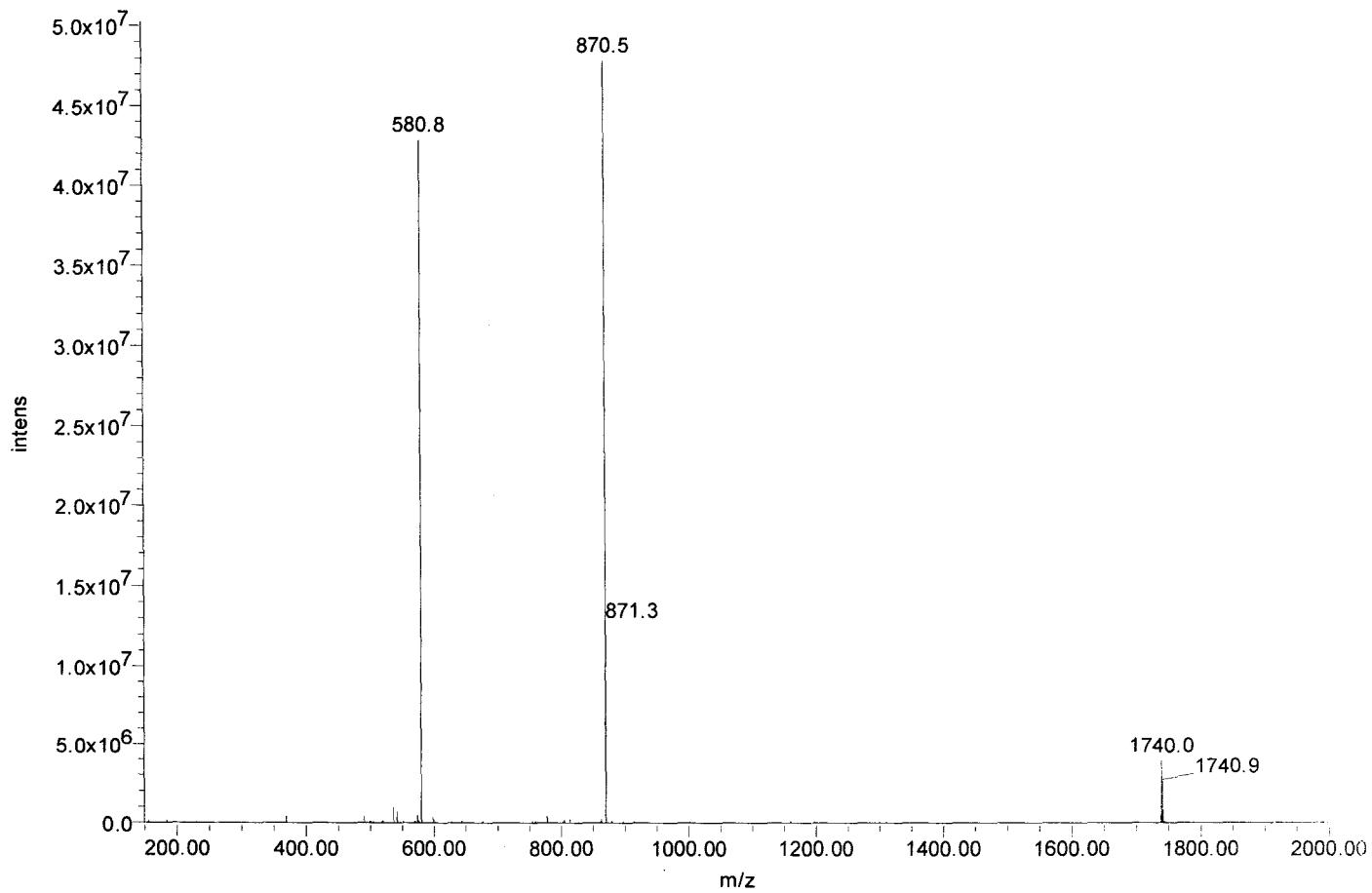
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #101  
RTDLEHDRVVLQSKE  
Cat#5810 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344841                   **Lot #:** SW05248T

**Sequence:** Arg-Thr-Asp-Leu-Glu-His-Asp-Arg-Val-Val-Leu-Gln-Ser-Lys-Glu

**Molecular Weight:** 1825.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 90.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00		His	1.00	1.00		Ser	1.00	0.85	
Asx	2.00	2.01		Leu	2.00	2.05		Thr	1.00	0.99	
Glx	3.00	2.85		Lys	1.00	0.98		Val	2.00	1.57	*1

\*1 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 06/02/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

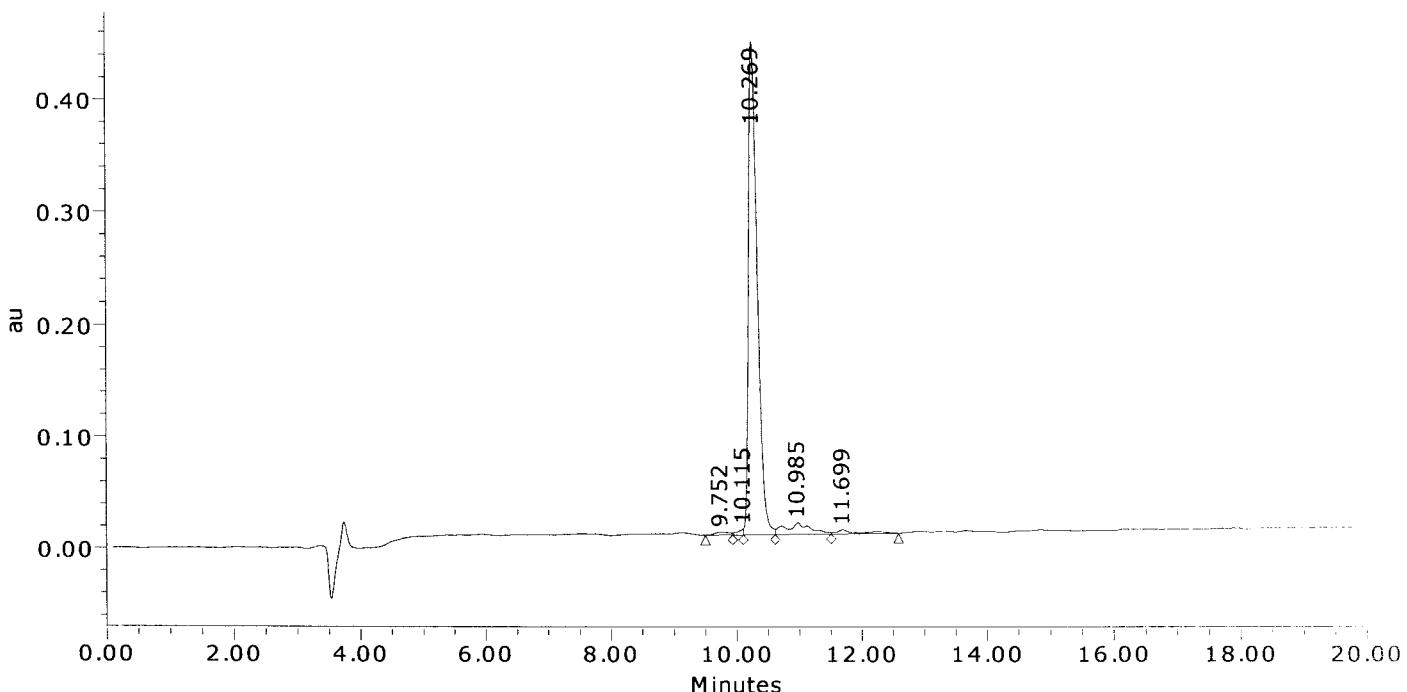
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344841/SW05248T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 15:33:02 CST  
Sample ID: 344841 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344841\_A Final\_PDA  
Date Acquired: 5/29/2008 12:08:43 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

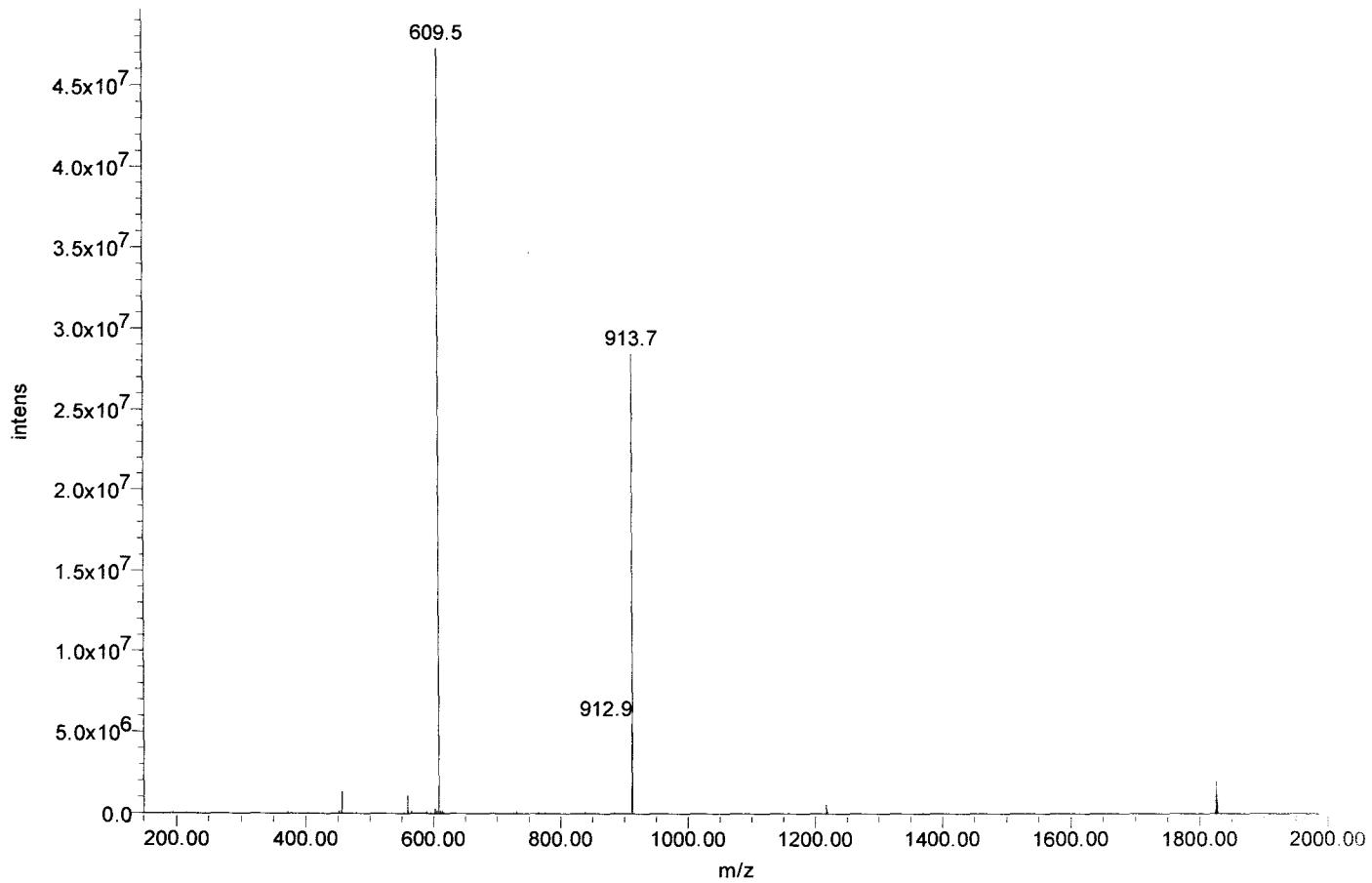
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.0	9.752	47820	2970
2	0.7	10.115	33839	5548
3	90.1	10.269	4271518	439416
4	6.2	10.985	292340	10592
5	2.0	11.699	94304	3824
Sum	100.00		4739820	462349.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344841</b>	<b>Lot # :</b> SW05248T	<b>Chemist :</b> Yan Li
Date Acquired :	5/29/2008 12:08:43 CST		
Expected MS :	MW: 1825.0		
Acq. Method Set :	Import		
Processing Method :	344841_A Final_MS		
Data Path :	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
Run Time :	25.0 Minutes		
Flow rate :	1.0 mL/min		
Buffers :	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
Instruments :	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #102  
EHDRVVLQSKELLNS  
Cat#5811 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344842                   **Lot #:** SW05246T

**Sequence:** Glu-His-Asp-Arg-Val-Val-Leu-Gln-Ser-Lys-Glu-Leu-Leu-Asn-Ser

**Molecular Weight:** 1767.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 77.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		His	1.00	0.99		Ser	2.00	1.62	
Asx	2.00	2.03		Leu	3.00	3.11		Val	2.00	1.62	
Glx	3.00	2.92		Lys	1.00	1.03					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Handwritten signature of Yan Li.

Date: 06/02/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

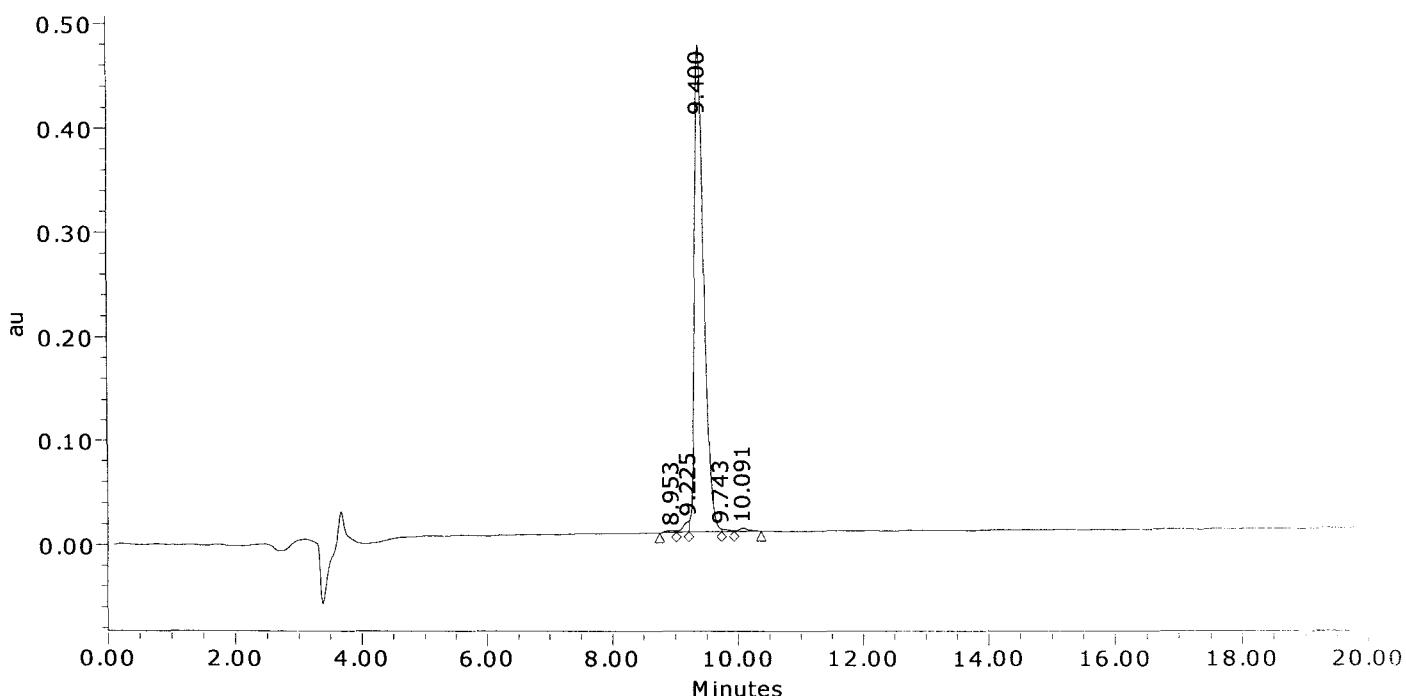
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344842/SW05246T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 15:25:16 CST  
Sample ID: 344842 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344842\_A Final\_PDA  
Date Acquired: 5/29/2008 11:28:54 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

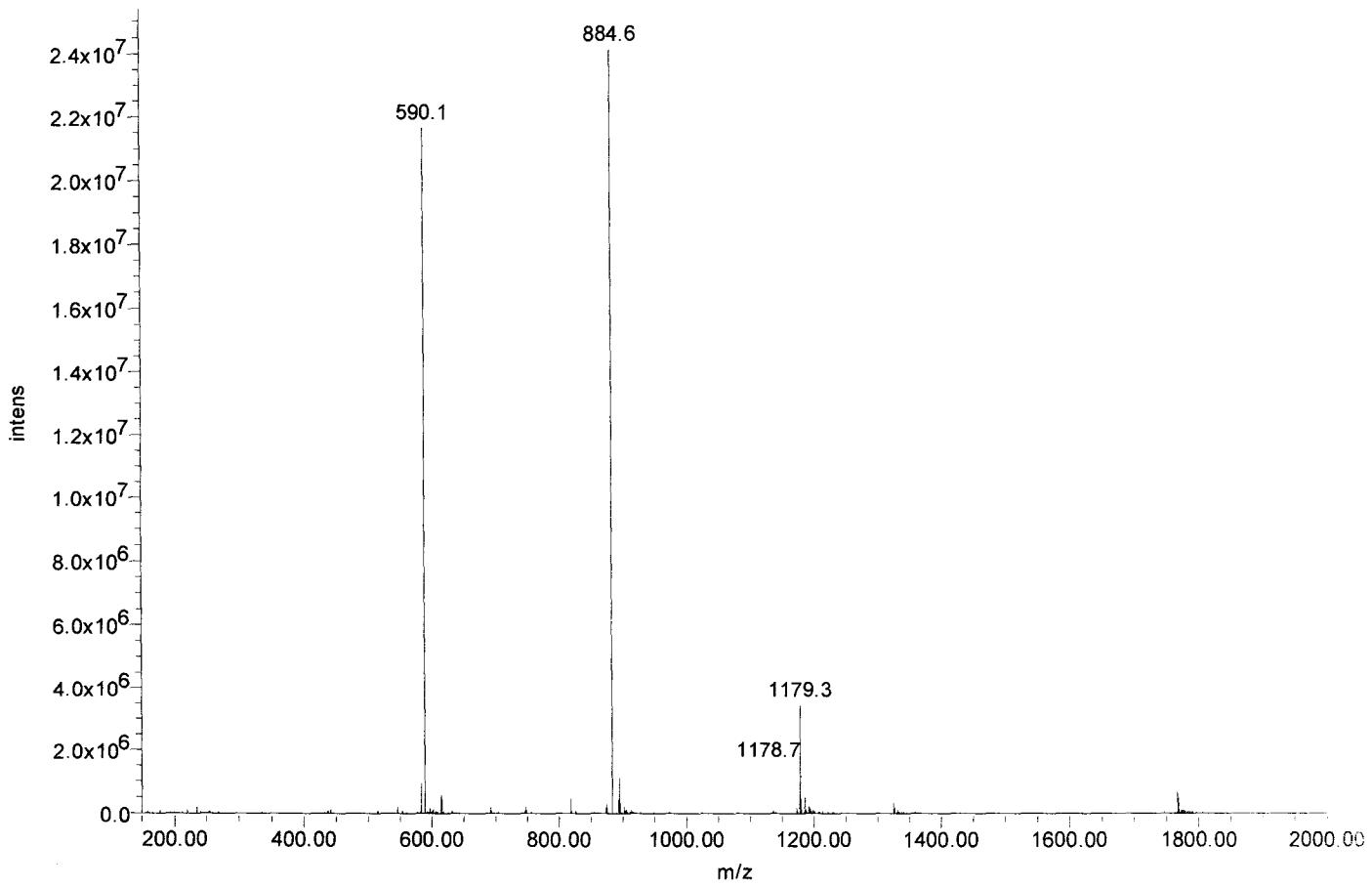
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.3	8.953	16956	1640
2	1.2	9.225	61077	10149
3	97.3	9.400	4794554	466493
4	0.4	9.743	19710	2599
5	0.7	10.091	33341	3035
Sum	100.00		4925637	483915.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344842</b>	<b>Lot # :</b> SW05246T	<b>Chemist :</b> Yan Li
Date Acquired :	5/29/2008 14:12:32 CST		
Expected MS :	MW: 1767.0		
Acq. Method Set :	Import		
Processing Method :	344842_A Final_MS		
Data Path :	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
Run Time :	1.0 Minutes		
Flow rate :	1.0 mL/min		
Buffers :	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
Instruments :	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





## Certificate of Analysis

SIVmac239 Pol #103  
VVLQSKELLNSIGFS  
Cat#5812 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344843                   **Lot #:** SW05255T  
**Sequence:** Val-Val-Leu-Gln-Ser-Lys-Glu-Leu-Leu-Asn-Ser-Ile-Gly-Phe-Ser  
**Molecular Weight:** 1633.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 89.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 86.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/30/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Ile	1.00	0.92		Phe	1.00	0.96	
Glx	2.00	2.13		Leu	3.00	2.87		Ser	3.00	2.42	
Gly	1.00	0.97		Lys	1.00	0.94		Val	2.00	1.38	*1

\*1 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 06/05/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

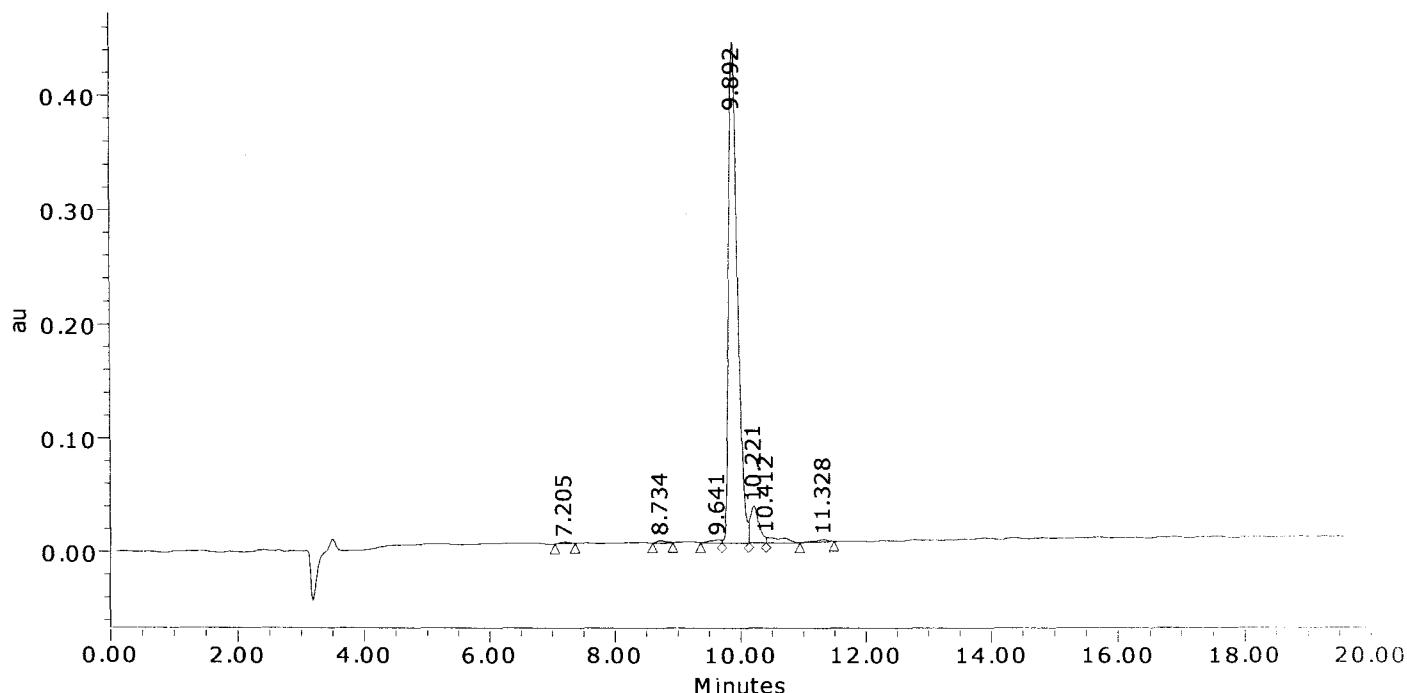
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344843/SW05255T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/30/2008 11:24:16 CST  
Sample ID: 344843 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344843\_A Final\_PDA  
Date Acquired: 5/30/2008 10:50:08 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.3	7.205	12956	1366
2	0.4	8.734	18119	2214
3	0.6	9.641	29271	2406
4	89.7	9.892	4272389	439294
5	6.5	10.221	308040	32073
6	1.9	10.412	88500	4423
7	0.7	11.328	33641	2293
Sum	100.00		4762915	484068.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344843

Lot # : SW05255T

Chemist : Yan Li

Date Acquired :

5/30/2008 13:33:24 CST

Expected MS :

MW: 1633.9

Acq. Method Set :

Import

Processing Method :

344843\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

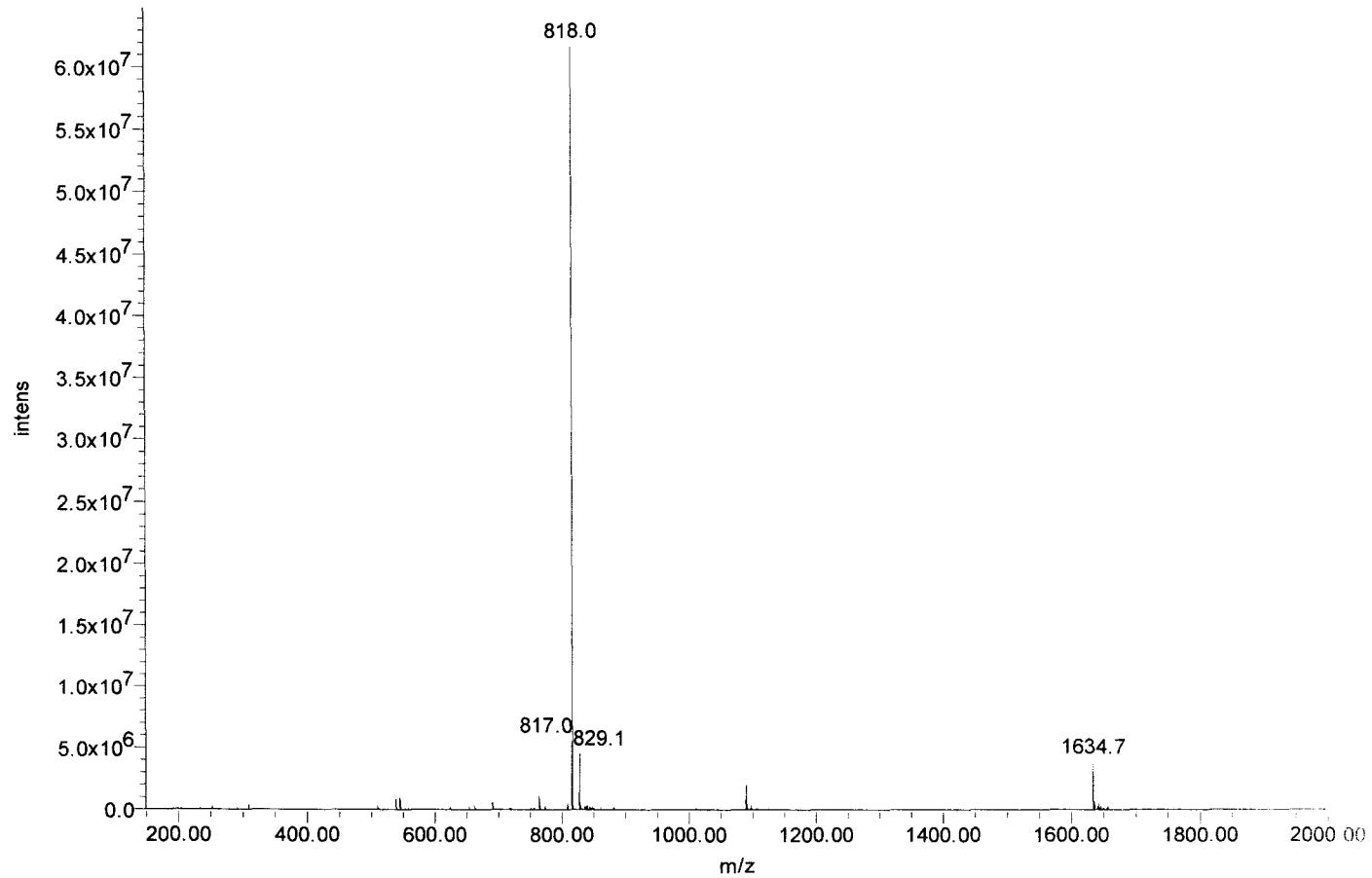
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #104  
SKELLNSIGFSTPEE  
Cat#5813 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344844                           **Lot #:** SW05250T

**Sequence:** Ser-Lys-Glu-Leu-Leu-Asn-Ser-Ile-Gly-Phe-Ser-Thr-Pro-Glu-Glu

**Molecular Weight:** 1650.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 99.4%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 79.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00	Leu	2.00	2.06	Pro	1.00	0.95
Glx	3.00	2.93	Lys	1.00	1.03	Ser	3.00	2.46
Gly	1.00	1.04	Phe	1.00	1.01	Thr	1.00	0.95
Ile	1.00	0.97						

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** ANL Li **Date:** 06/02/08  
**Quality Control Department**

## Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Tel: 760.597.8820 Fax: 760.597.8816

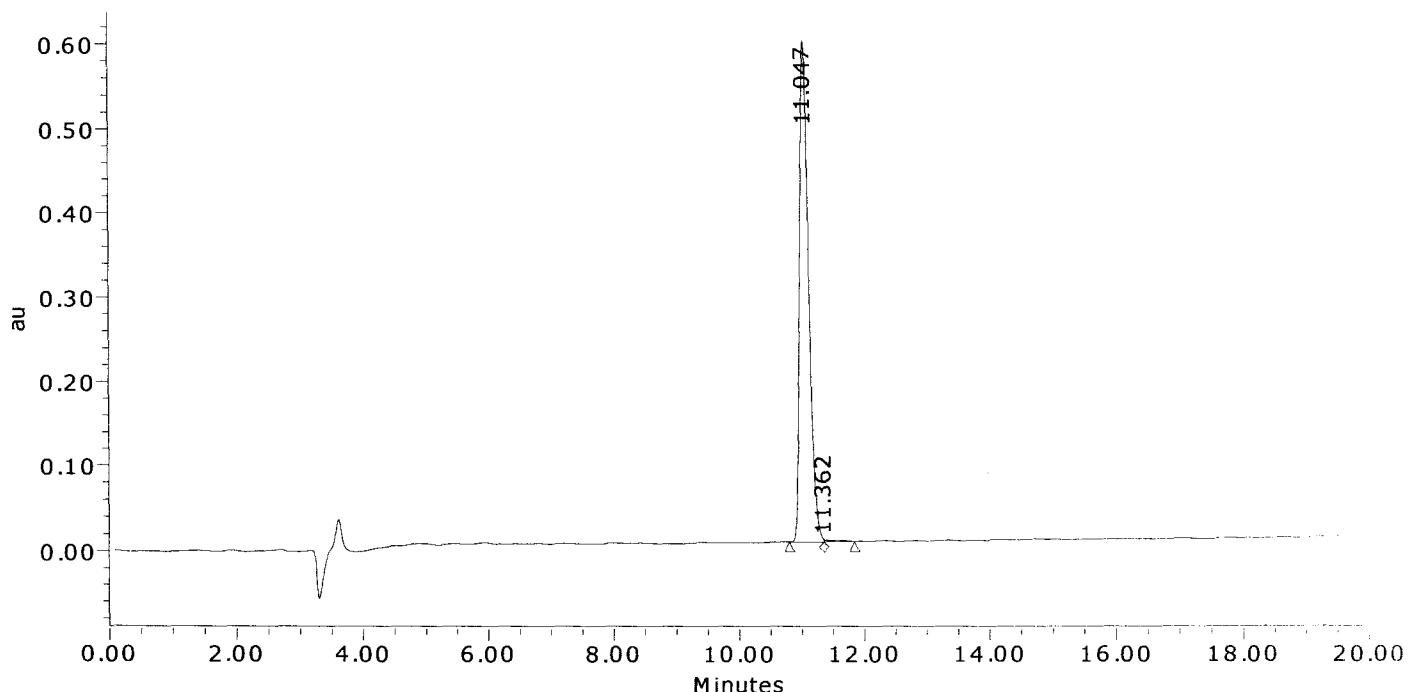
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6253

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344844/SW05250T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/29/2008 16:05:31 CST
Sample ID:	344844	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344844_A Final_PDA
Date Acquired:	5/29/2008 14:42:39 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	99.4	11.047	5929691	593159
2	0.6	11.362	35708	3194
Sum	100.00		5965399	596353.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344844**

Lot # : **SW05250T**

Chemist : **Yan Li**

Date Acquired :

5/29/2008 14:42:39 CST

Expected MS:

MW: 1650.8

Acq. Method Set :

Import

Processing Method :

344844\_A Final\_MS

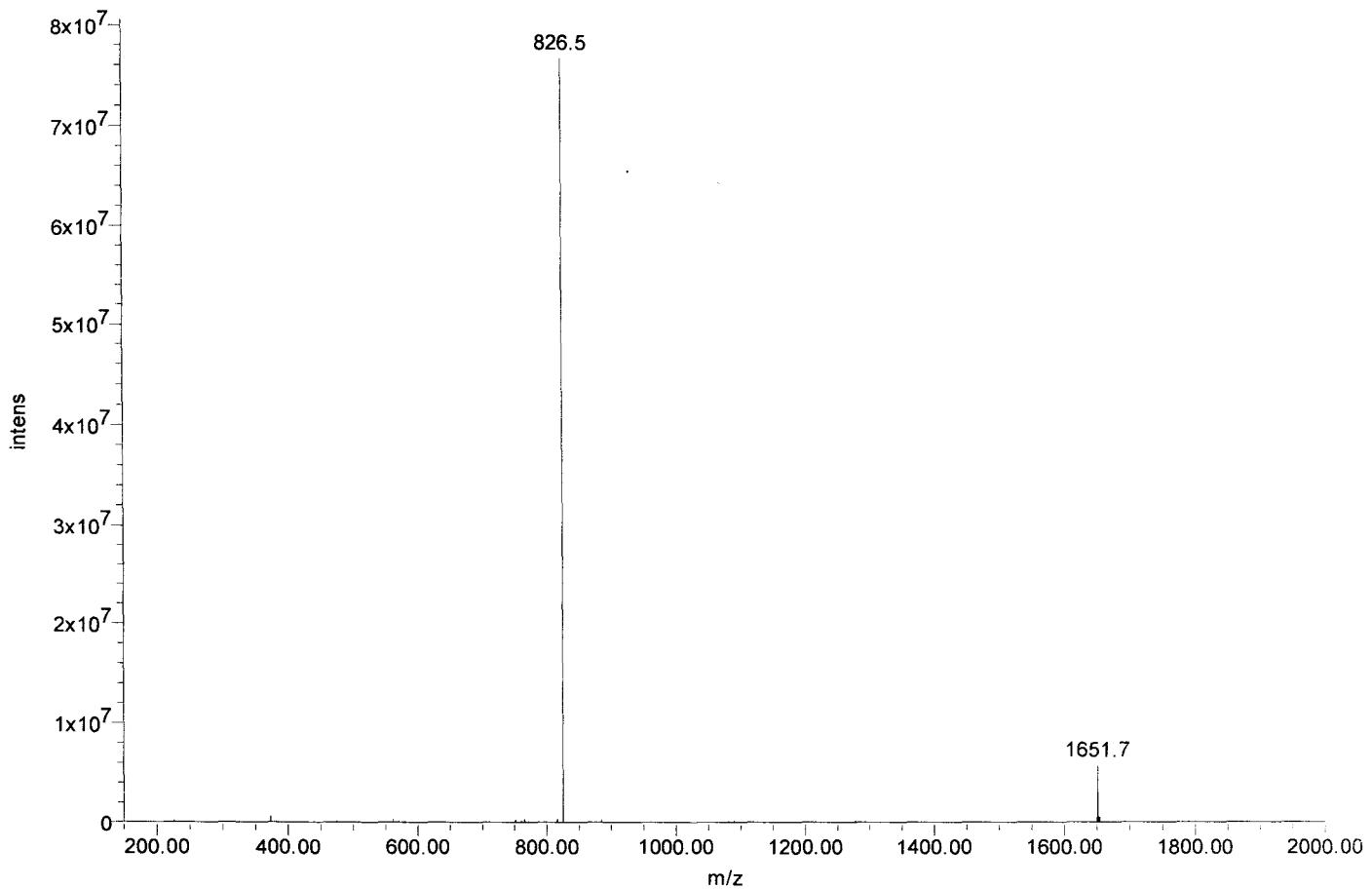
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time : 25.0 Minutes

Flow rate : 1.0 mL/min

Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #105  
LNSIGFSTPEEKFQK  
Cat#5814 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344845                   **Lot #:** SW05113T  
**Sequence:** Leu-Asn-Ser-Ile-Gly-Phe-Ser-Thr-Pro-Glu-Glu-Lys-Phe-Gln-Lys  
**Molecular Weight:** 1725.0 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 68.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/19/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Leu	1.00	1.13		Pro	1.00	0.86	
Glx	3.00	2.92		Lys	2.00	2.03		Ser	2.00	1.64	
Gly	1.00	1.04		Phe	2.00	2.04		Thr	1.00	0.97	
Ile	1.00	1.00									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Yan Z Li

Date: 05/21/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Tel: 760-597-8820 Fax: 760-597-8816

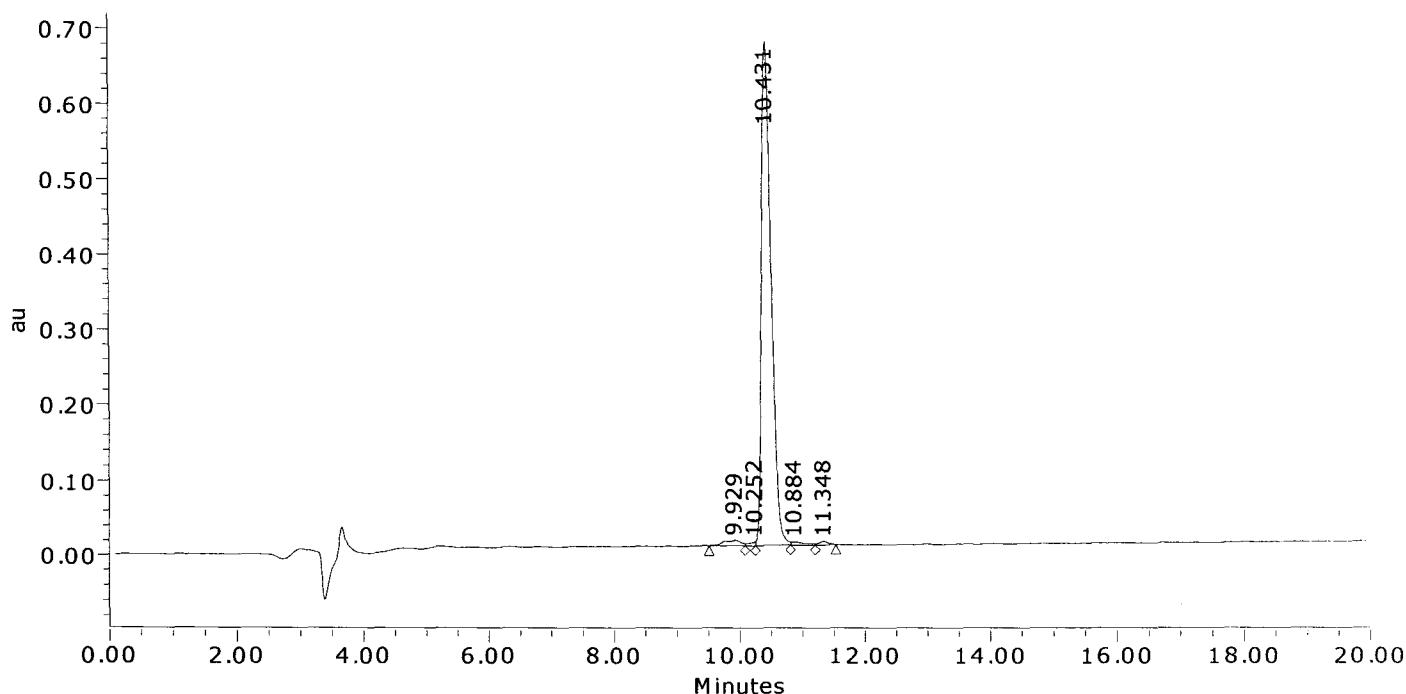
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344845/SW05113T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 10:39:11 CST  
Sample ID: 344845 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344845\_A Final\_PDA  
Date Acquired: 5/19/2008 19:38:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	1.8	9.929	134250	7158
2	0.4	10.252	32459	5371
3	96.2	10.431	7155579	669298
4	0.8	10.884	62546	4055
5	0.7	11.348	50680	4801
<b>Sum</b>	<b>100.00</b>		<b>7435513</b>	<b>690683.2</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344845**

**Lot # : SW05113T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 13:49:48 CST

Expected MS :

MW: 1725.0

Acq. Method Set :

Import

Processing Method :

344845\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

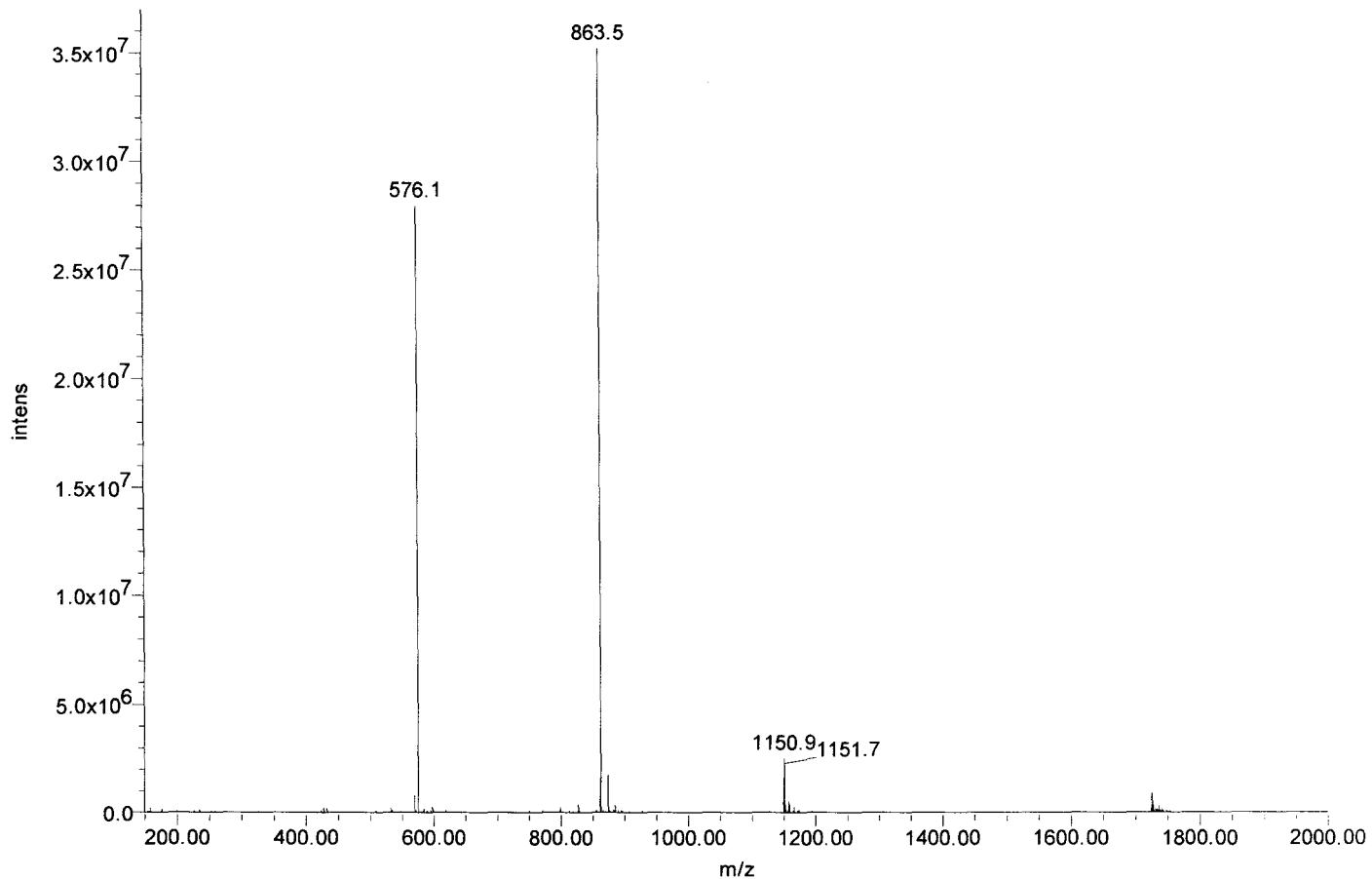
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #106  
GFSTPEEKFQKDPPF  
Cat#5815 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344846                   **Lot #:** SW05084T

**Sequence:** Gly-Phe-Ser-Thr-Pro-Glu-Glu-Lys-Phe-Gln-Lys-Asp-Pro-Pro-Phe

**Molecular Weight:** 1753.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 69.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/15/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.09		Lys	2.00	2.26		Ser	1.00	0.80	
Glx	3.00	3.21		Phe	3.00	3.38		Thr	1.00	1.00	
Gly	1.00	1.15		Pro	3.00	3.43					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/20/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
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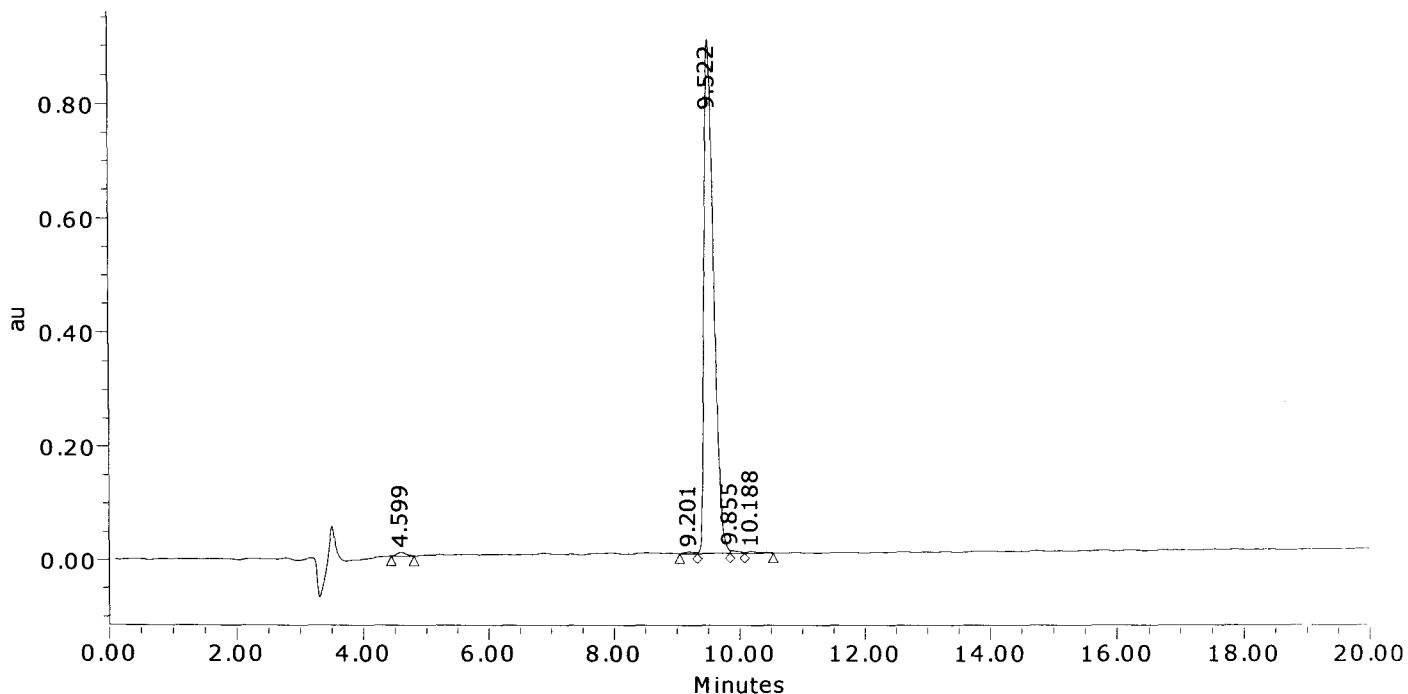
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344846/SW05084T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/16/2008 10:35:36 CST  
Sample ID: 344846 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344846\_A Final\_PDA  
Date Acquired: 5/15/2008 16:08:53 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C

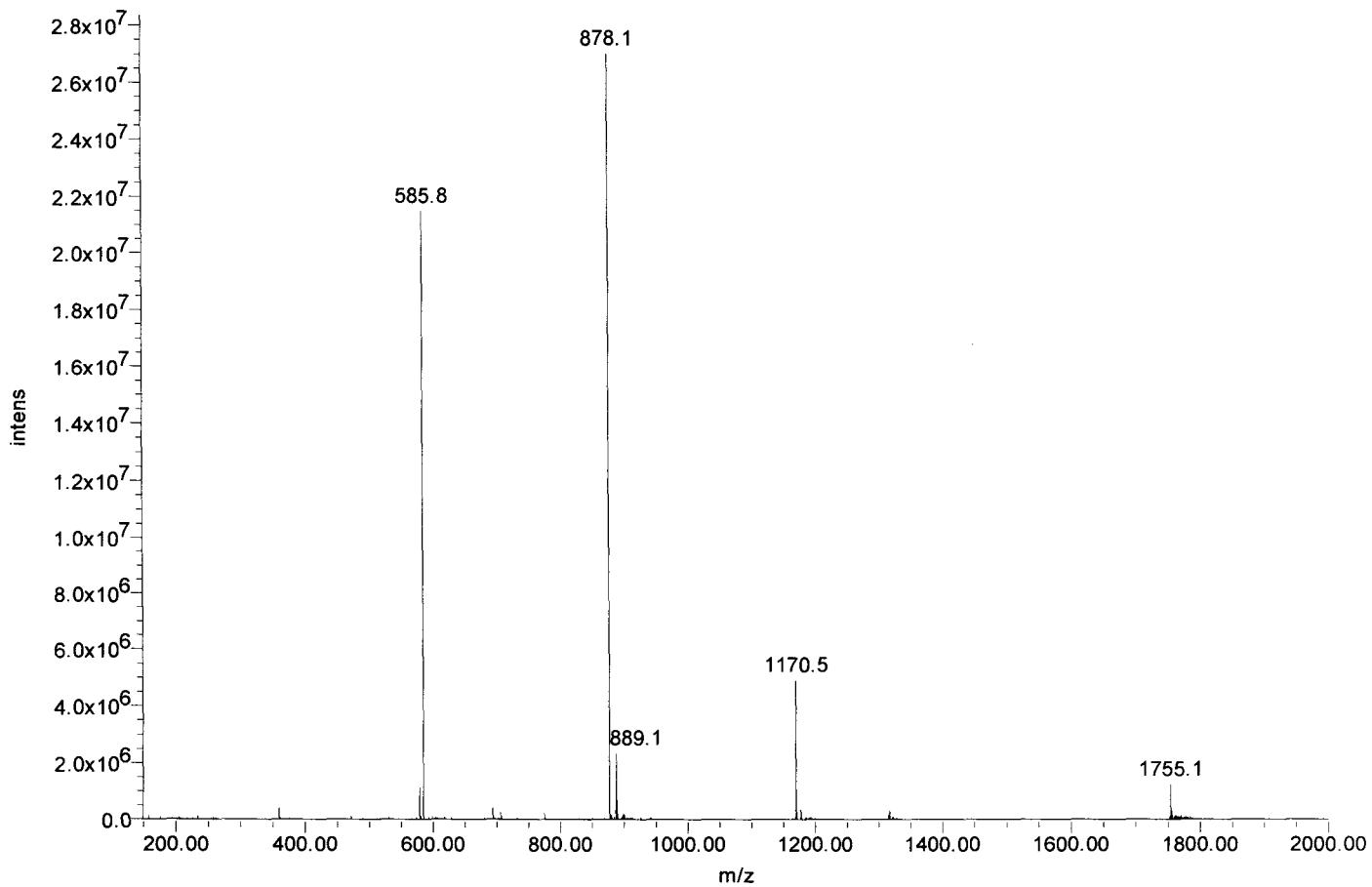


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	4.599	61935	6384
2	0.3	9.201	33288	2995
3	98.2	9.522	9628339	899365
4	0.5	9.855	44314	5216
5	0.4	10.188	37260	3144
Sum	100.00		9805135	917105.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344846      **Lot # :** SW05084T      **Chemist :** Yan Li

Date Acquired : 5/15/2008 17:45:09 CST  
Expected MS : MW: 1753.9  
Acq. Method Set : Import  
Processing Method : 344846\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #107  
PEEKFQKDPPFQWMG  
Cat#5816 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344847                   **Lot #:** SW05108T

**Sequence:** Pro-Glu-Glu-Lys-Phe-Gln-Lys-Asp-Pro-Pro-Phe-Gln-Trp-Met-Gly

**Molecular Weight:** 1864.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Lys	2.00	1.93		Pro	3.00	2.88	
Glx	4.00	3.66		Met	1.00	1.00		Trp	1.00	0.00	*1
Gly	1.00	0.99		Phe	2.00	1.94					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

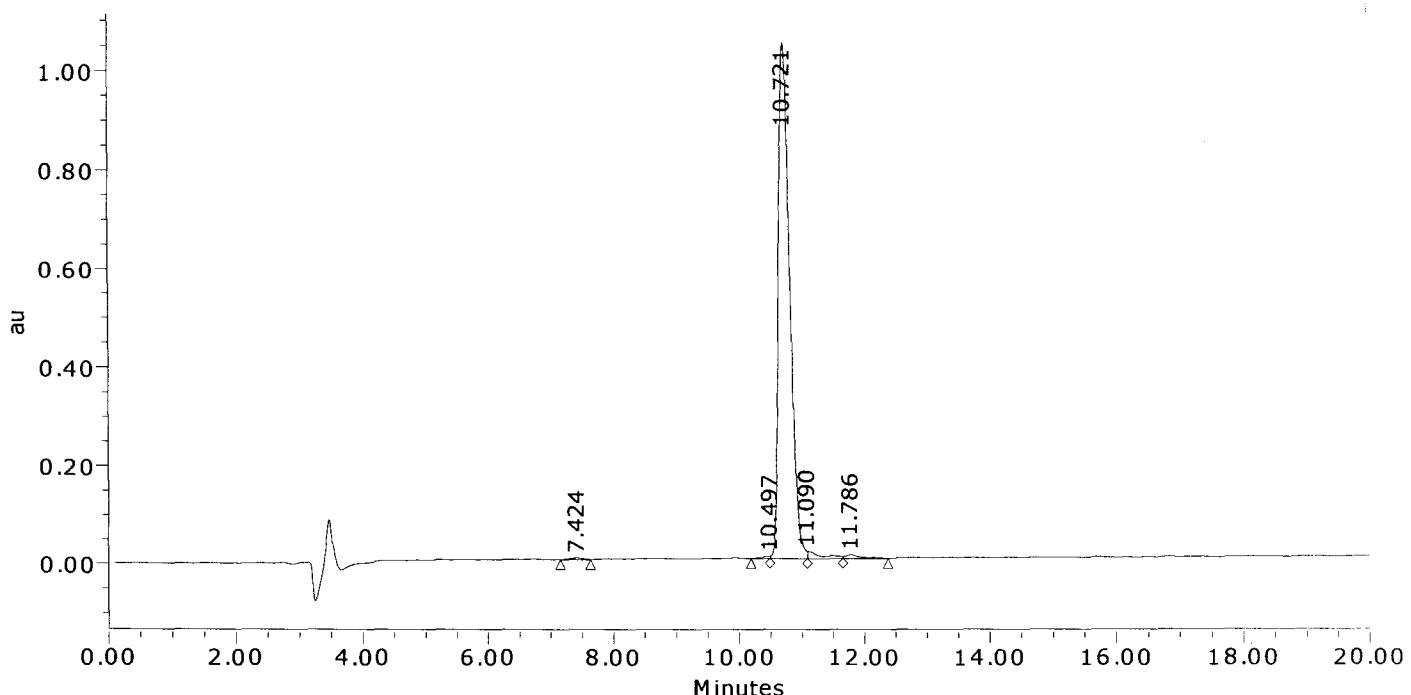
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344847/SW05108T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 9:39:12 CST  
Sample ID: 344847 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344847\_A\_Final\_PDA  
Date Acquired: 5/19/2008 16:58:32 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.3	7.424	42325	3054
2	0.3	10.497	36640	4409
3	97.0	10.721	13117225	1045235
4	1.6	11.090	212754	14680
5	0.8	11.786	111782	7138
Sum	100.00		13520727	1074515.9

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344847

Lot # : SW05108T

Chemist : Yan Li

Date Acquired :

5/19/2008 16:58:32 CST

Expected MS :

MW: 1864.1

Acq. Method Set :

Import

Processing Method :

344847\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

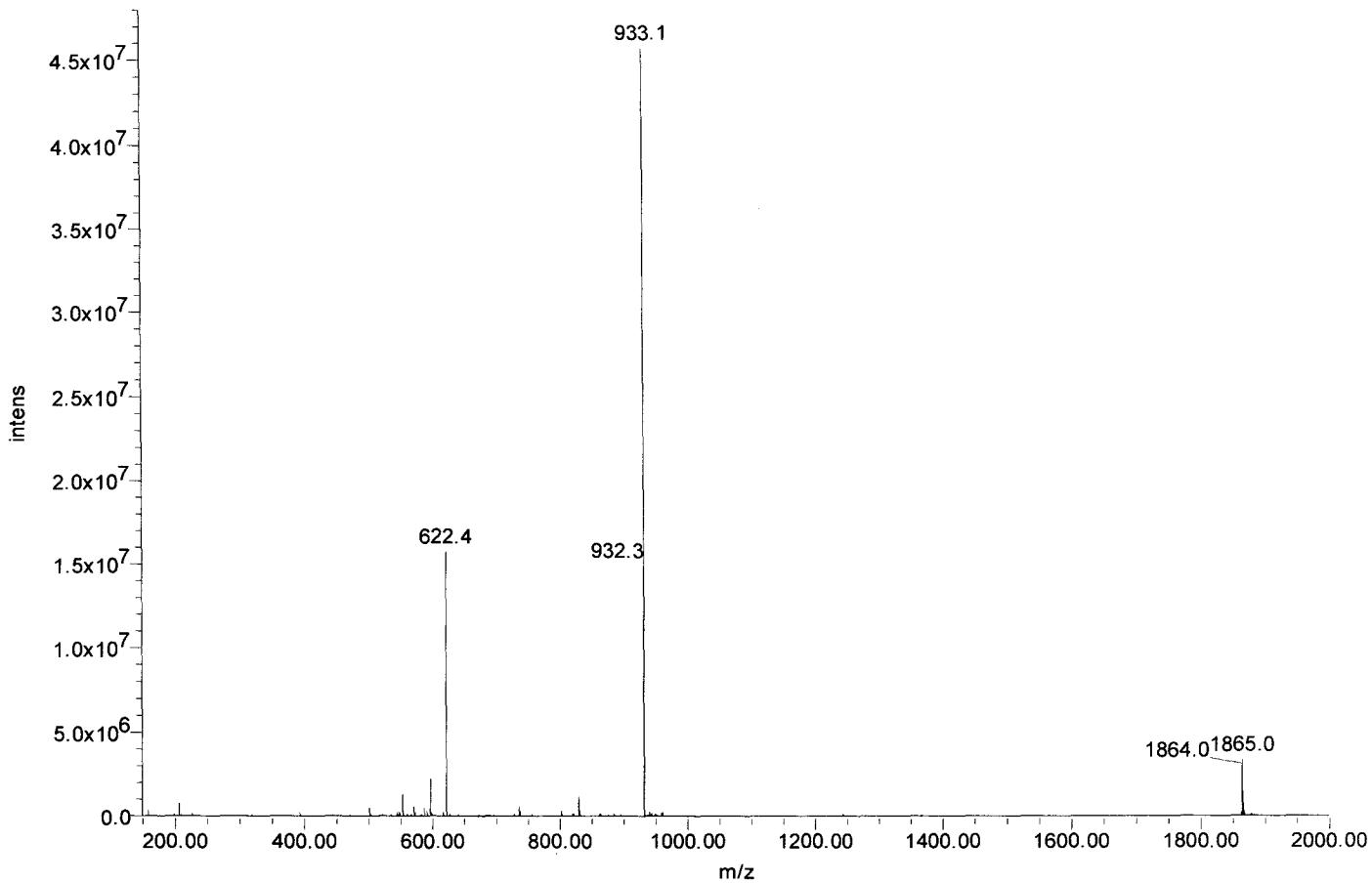
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #108  
FQKDPPFQWMGYELW  
Cat#5817 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344848                   **Lot #:** SW05115T

**Sequence:** Phe-Gln-Lys-Asp-Pro-Pro-Phe-Gln-Trp-Met-Gly-Tyr-Glu-Leu-Trp

**Molecular Weight:** 1972.3 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 92.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 75.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/19/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Lys	1.00	0.95		Pro	2.00	1.95	
Glx	3.00	2.74		Met	1.00	1.01		Trp	2.00	0.00	*1
Gly	1.00	0.99		Phe	2.00	1.91		Tyr	1.00	1.05	
Leu	1.00	1.07									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

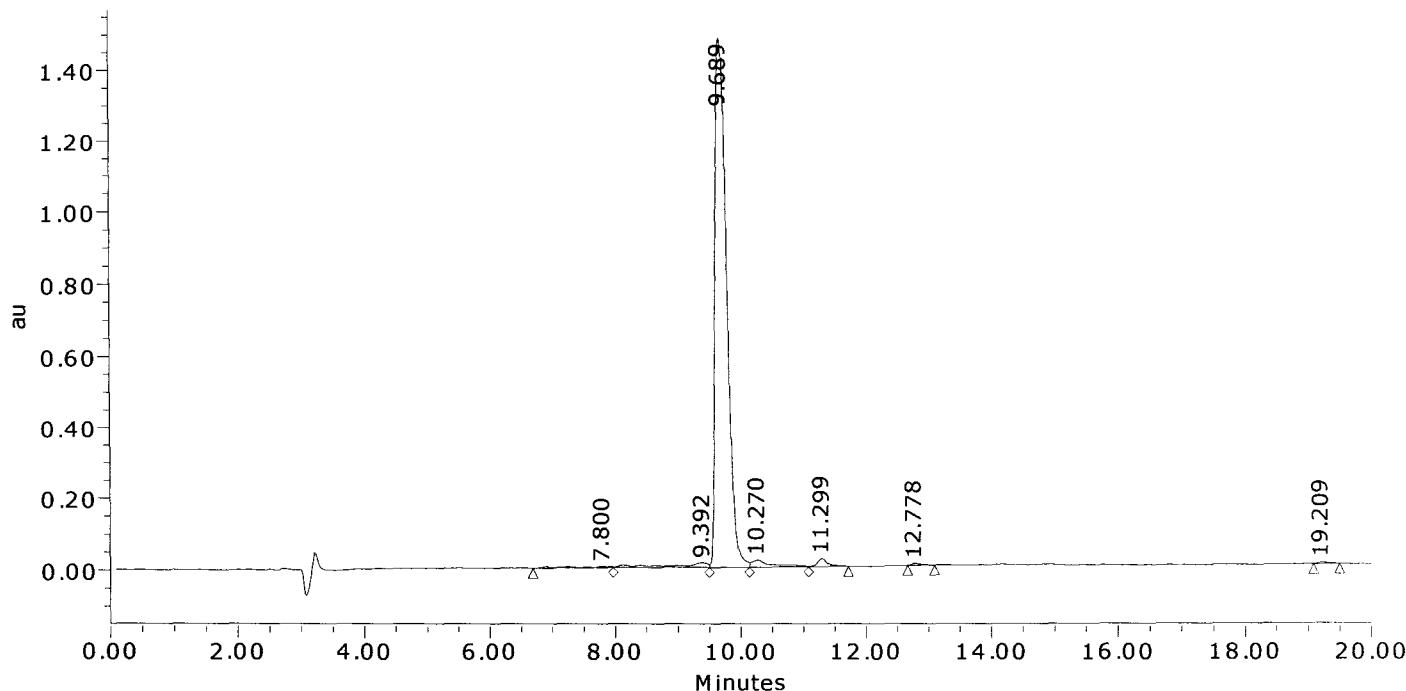
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344848/SW05115T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 14:40:33 CST  
Sample ID: 344848 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344848\_A Final\_PDA  
Date Acquired: 5/19/2008 14:01:22 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 32% -52% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.7	7.800	150619	4282
2	2.6	9.392	525316	12544
3	92.7	9.689	18943032	1482038
4	2.1	10.270	436235	19771
5	1.3	11.299	272054	23317
6	0.3	12.778	64481	6055
7	0.2	19.209	46689	4319
Sum	100.00		20438426	1552326.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344848**

**Lot # : SW05115T**

**Chemist : Yan Li**

Date Acquired :

5/19/2008 14:01:22 CST

Expected MS :

MW: 1972.3

Acq. Method Set :

Import

Processing Method :

344848\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

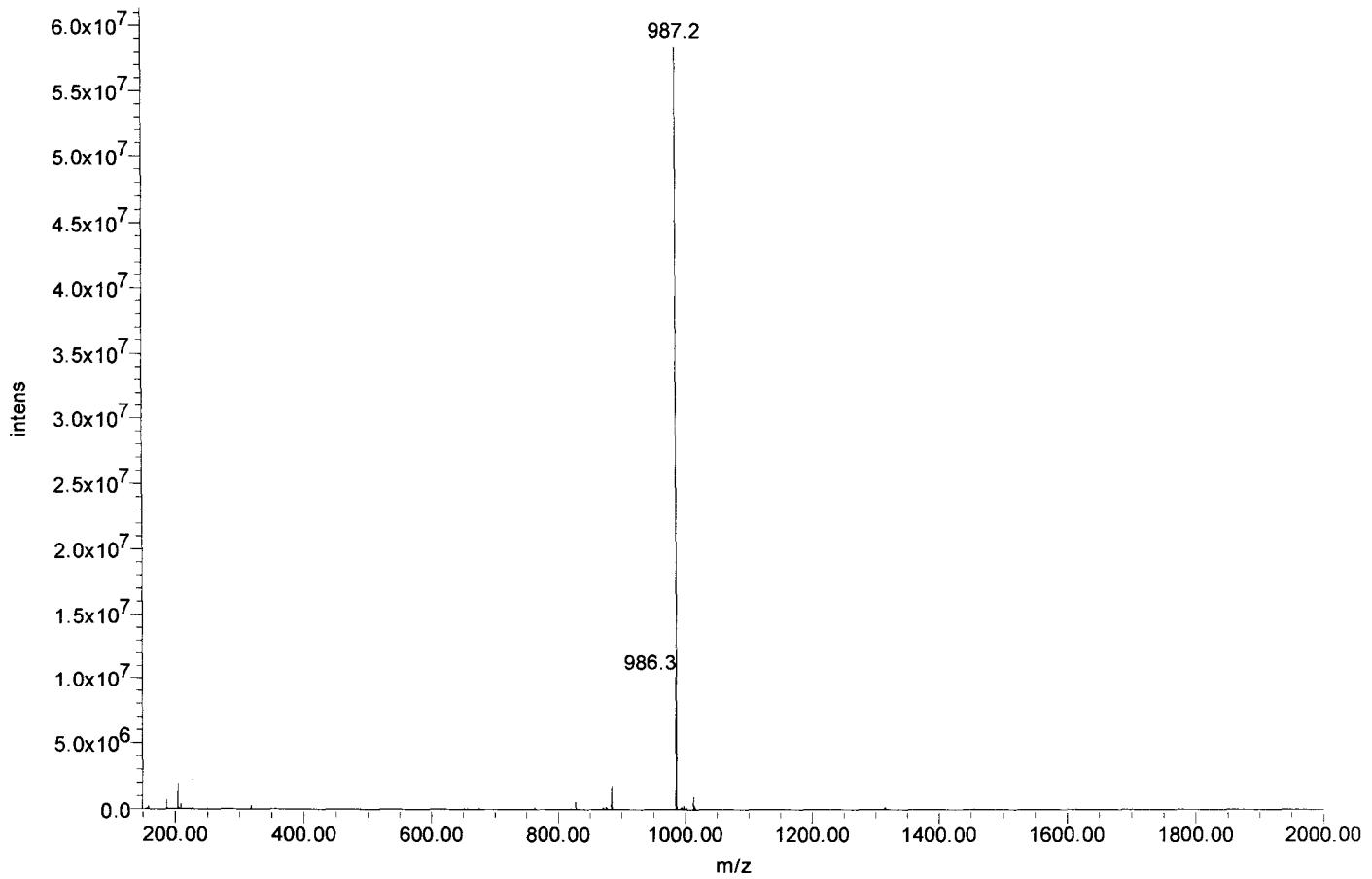
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #109  
PPFQWMGYELWPTKW  
Cat#5818 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344849                   **Lot #:** SW05093T

**Sequence:** Pro-Pro-Phe-Gln-Trp-Met-Gly-Tyr-Glu-Leu-Trp-Pro-Thr-Lys-Trp

**Molecular Weight:** 1966.3 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 89.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 88.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Glx	2.00	2.26		Met	1.00	1.00	Thr	1.00	0.97
Gly	1.00	1.00		Phe	1.00	0.98	Trp	3.00	0.00
Leu	1.00	1.09		Ser	3.00	3.12	Tyr	1.00	1.06
Lys	1.00	0.93							*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan Li*

Date: 05/21/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
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Tel: 760-597-8820 Fax: 760-597-8816

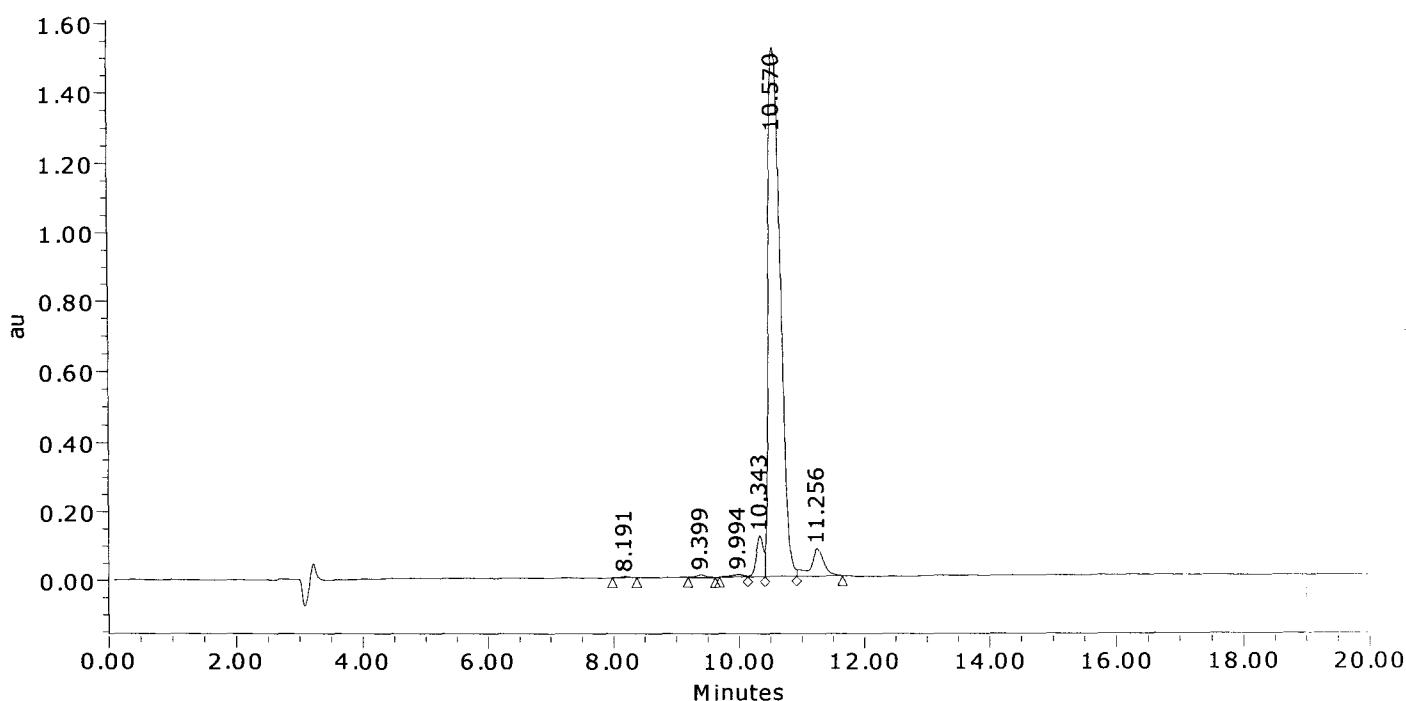
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344849/SW05093T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 14:01:16 CST  
Sample ID: 344849 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344849\_A Final\_PDA  
Date Acquired: 5/16/2008 13:52:29 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 33% -53% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.1	8.191	33068	3125
2	0.3	9.399	70704	7131
3	0.4	9.994	95280	6497
4	4.2	10.343	939411	119128
5	89.8	10.570	20219397	1517578
6	5.2	11.256	1164108	80125
<b>Sum</b>	<b>100.00</b>		<b>22521968</b>	<b>1733585.5</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344849**

Lot # : SW05093T

Chemist : Yan Li

Date Acquired :

5/16/2008 13:52:29 CST

Expected MS :

MW: 1966.3

Acq. Method Set :

Import

Processing Method :

344849\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

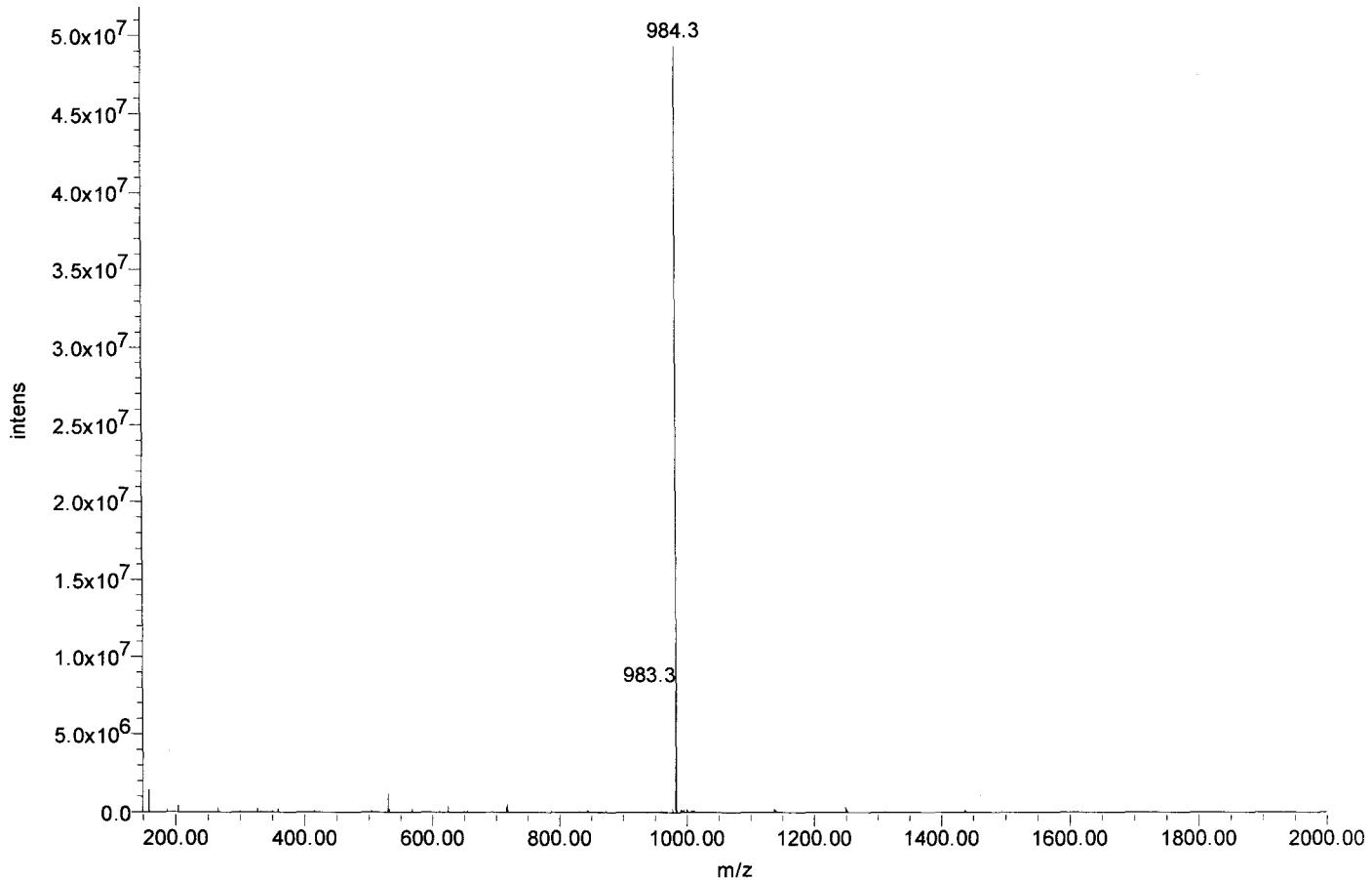
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #110  
WMGYEI.WPTKWKLQK  
Cat#5819 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344850                   **Lot #:** SW05107T

**Sequence:** Trp-Met-Gly-Tyr-Glu-Leu-Trp-Pro-Thr-Lys-Trp-Lys-Leu-Gln-Lys

**Molecular Weight:** 1994.4 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 75.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Glx	2.00	1.86		Lys	3.00	2.91		Thr	1.00	0.96	
Gly	1.00	1.00		Met	1.00	1.01		Trp	3.00	0.00	*1
Leu	2.00	2.15		Pro	1.00	0.92		Tyr	1.00	1.06	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/21/08

Quality Control Department

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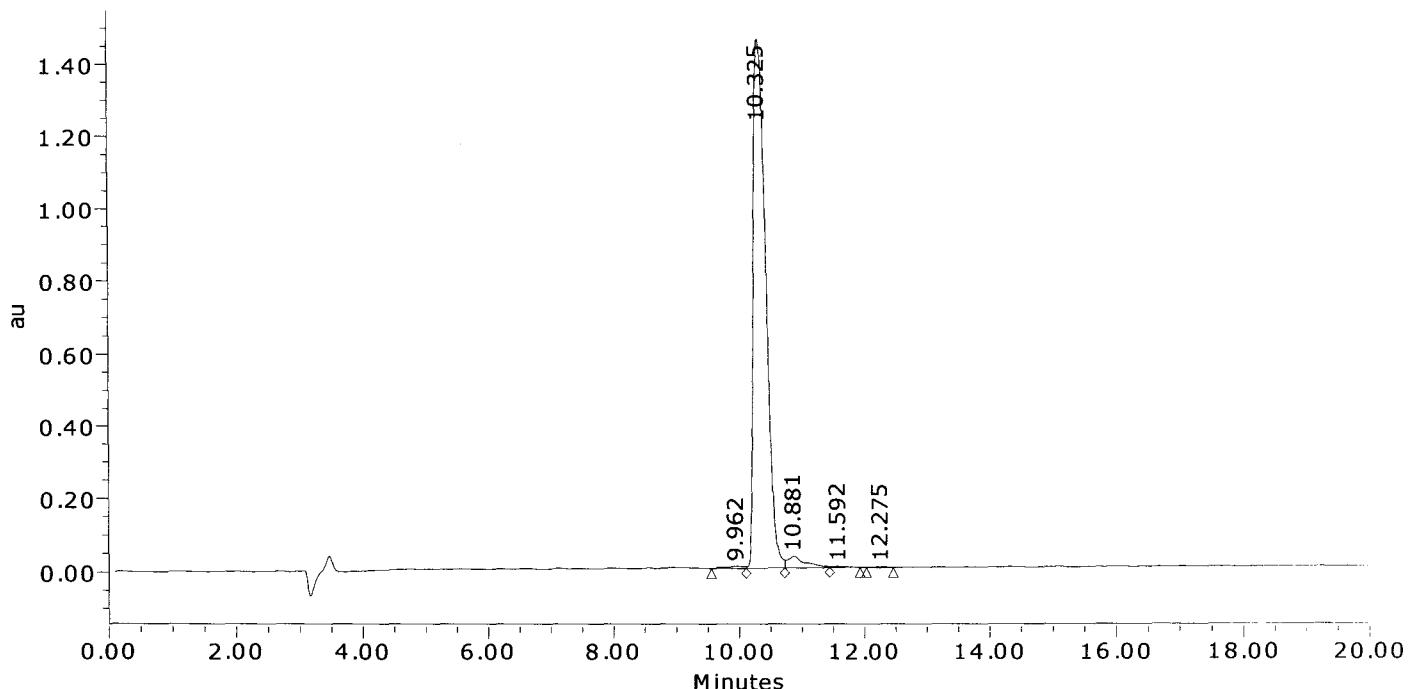
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344850/SW05107T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 11:32:34 CST  
Sample ID: 344850 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344850\_A\_Final\_PDA  
Date Acquired: 5/16/2008 19:02:40 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

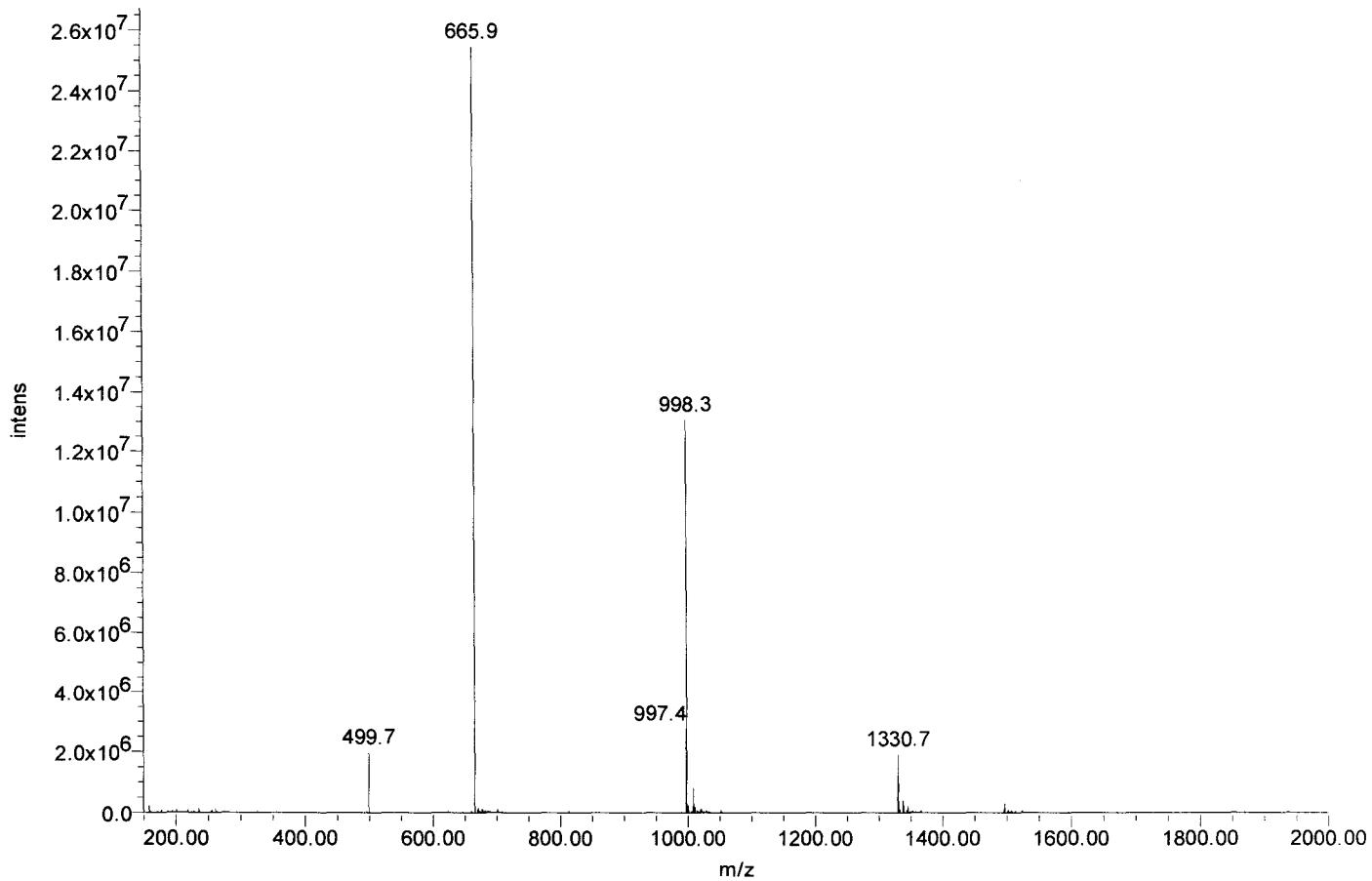


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	9.962	105582	5554
2	96.0	10.325	20090731	1459894
3	3.1	10.881	640937	31563
4	0.3	11.592	52424	3046
5	0.1	12.275	28493	2312
Sum	100.00		20918168	1502368.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344850      **Lot # :** SW05107T      **Chemist :** Yan Li

Date Acquired : 5/20/2008 13:54:21 CST  
Expected MS : MW: 1994.4  
Acq. Method Set : Import  
Processing Method : 344850\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #111  
ELWPTKWKLQKIELP  
Cat#5820 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344851                   **Lot #:** SW05096T

**Sequence:** Glu-Leu-Trp-Pro-Thr-Lys-Trp-Lys-Leu-Gln-Lys-Ile-Glu-Leu-Pro

**Molecular Weight:** 1909.3 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.5%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 62.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Glx	3.00	2.89		Lys	3.00	3.00		Thr	1.00	0.98	
Ile	1.00	0.98		Pro	2.00	1.96		Trp	2.00	0.00	*1
Leu	3.00	3.39									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/21/08

Quality Control Department

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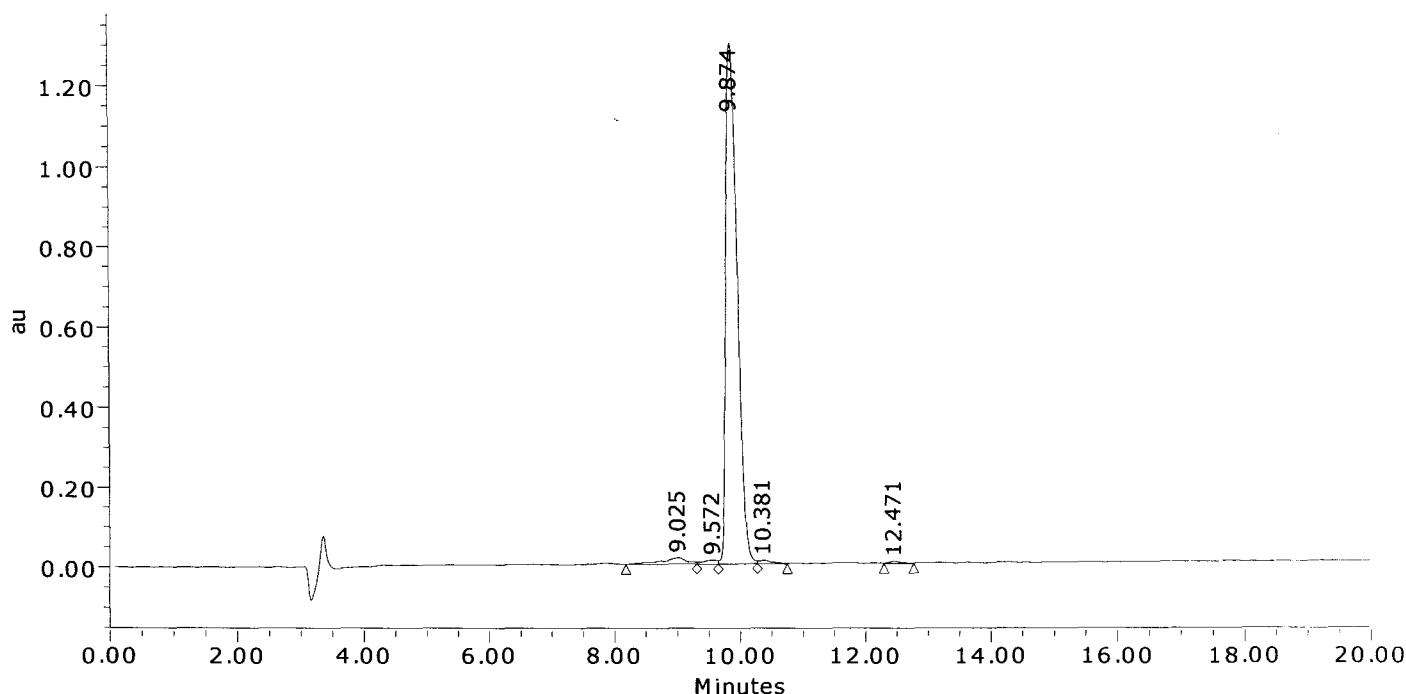
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344851/SW05096T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:42:26 CST  
Sample ID: 344851 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344851\_A\_Final\_PDA  
Date Acquired: 5/16/2008 14:35:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C

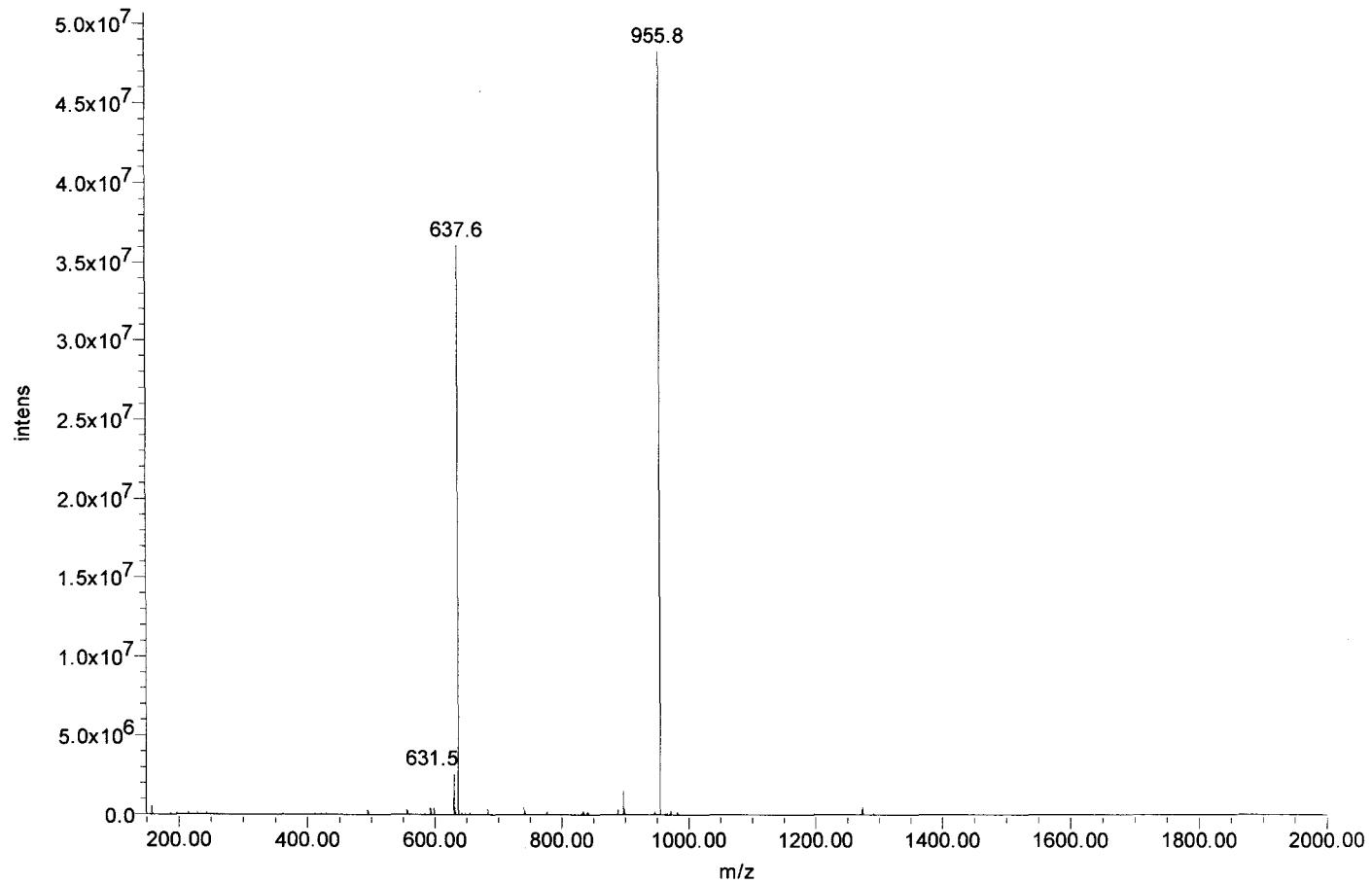


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.6	9.025	449789	15458
2	0.9	9.572	147034	9622
3	95.5	9.874	16433701	1298634
4	0.7	10.381	116137	8107
5	0.4	12.471	64600	4999
Sum	100.00		17211261	1336819.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344851      **Lot # :** SW05096T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 14:35:04 CST  
Expected MS : MW: 1909.3  
Acq. Method Set : Import  
Processing Method : 344851\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #112  
TKWKIQLKIELPQRET  
Cat#5821 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344852                   **Lot #:** SW05106T

**Sequence:** Thr-Lys-Trp-Lys-Leu-Gln-Lys-Ile-Glu-Leu-Pro-Gln-Arg-Glu-Thr

**Molecular Weight:** 1898.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 61.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.03		Leu	2.00	2.28		Thr	2.00	1.96	
Glx	4.00	3.82		Lys	3.00	3.00		Trp	1.00	0.00	*1
Ile	1.00	0.99		Pro	1.00	0.97					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Yan Li'.

Date: 05/21/08

Quality Control Department

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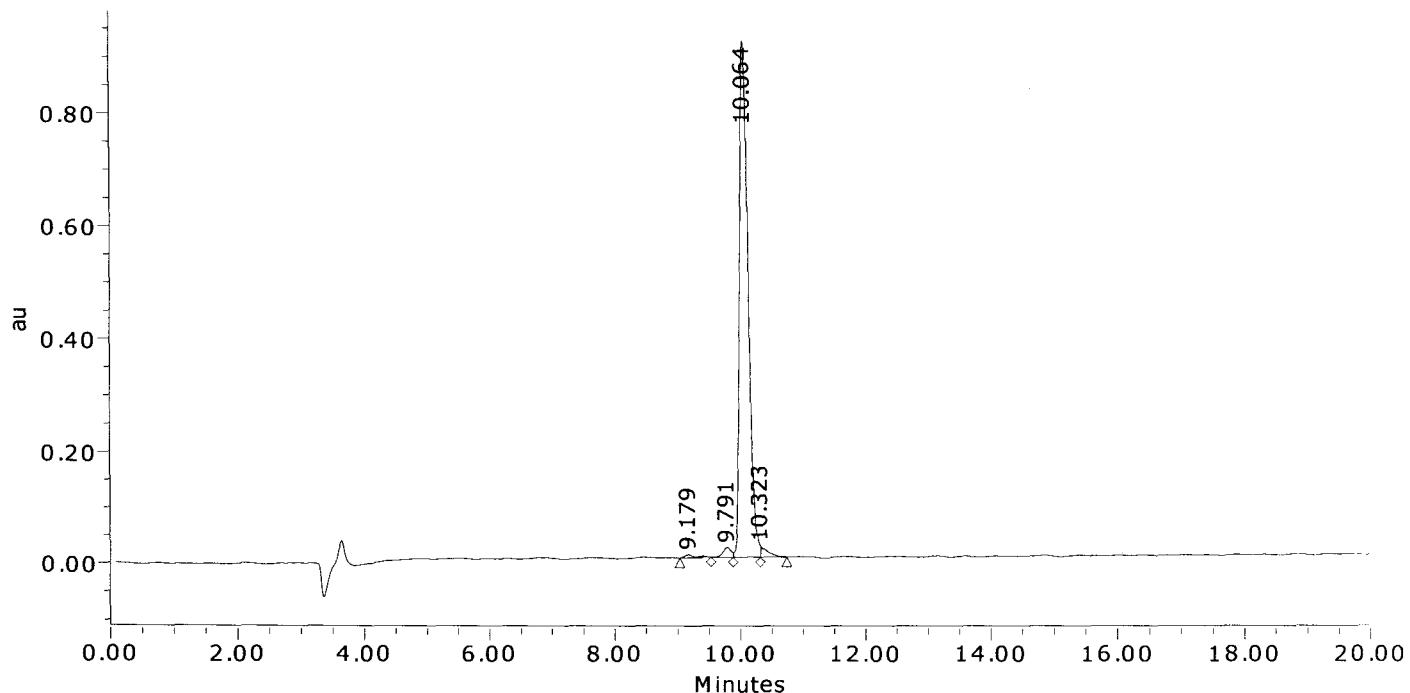
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344852/SW05106T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 11:41:38 CST  
Sample ID: 344852 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344852\_A\_Final\_PDA  
Date Acquired: 5/16/2008 22:12:39 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

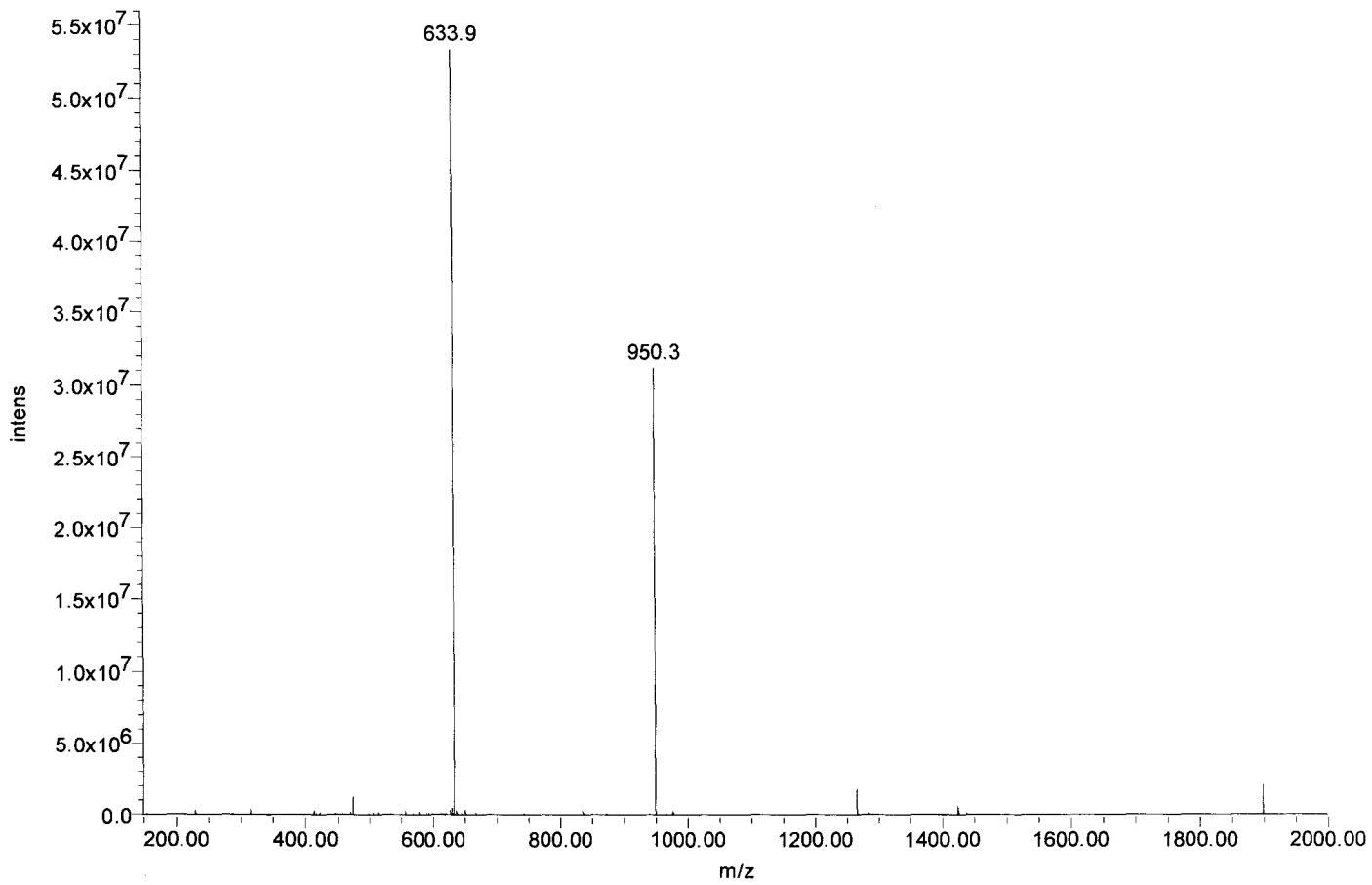


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.7	9.179	66338	5573
2	1.7	9.791	161386	17607
3	95.9	10.064	8864112	917474
4	1.6	10.323	151188	20096
Sum	100.00		9243024	960750.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344852      **Lot # :** SW05106T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 22:12:39 CST  
Expected MS : MW: 1898.2  
Acq. Method Set : Import  
Processing Method : 344852\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #113  
I.QKIELPQRETWTVN  
Cat#/5822 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344853                   **Lot #:** SW05101T  
**Sequence:** Leu-Gln-Lys-Ile-Glu-Leu-Pro-Gln-Arg-Glu-Thr-Trp-Thr-Val-Asn  
**Molecular Weight:** 1855.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 65.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Leu	2.00	2.16		Thr	2.00	1.86	
Asx	1.00	0.89		Lys	1.00	0.95		Trp	1.00	0.00	*1
Glx	4.00	3.67		Pro	1.00	0.95		Val	1.00	0.92	
Ile	1.00	0.95									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/21/08  
Quality Control Department

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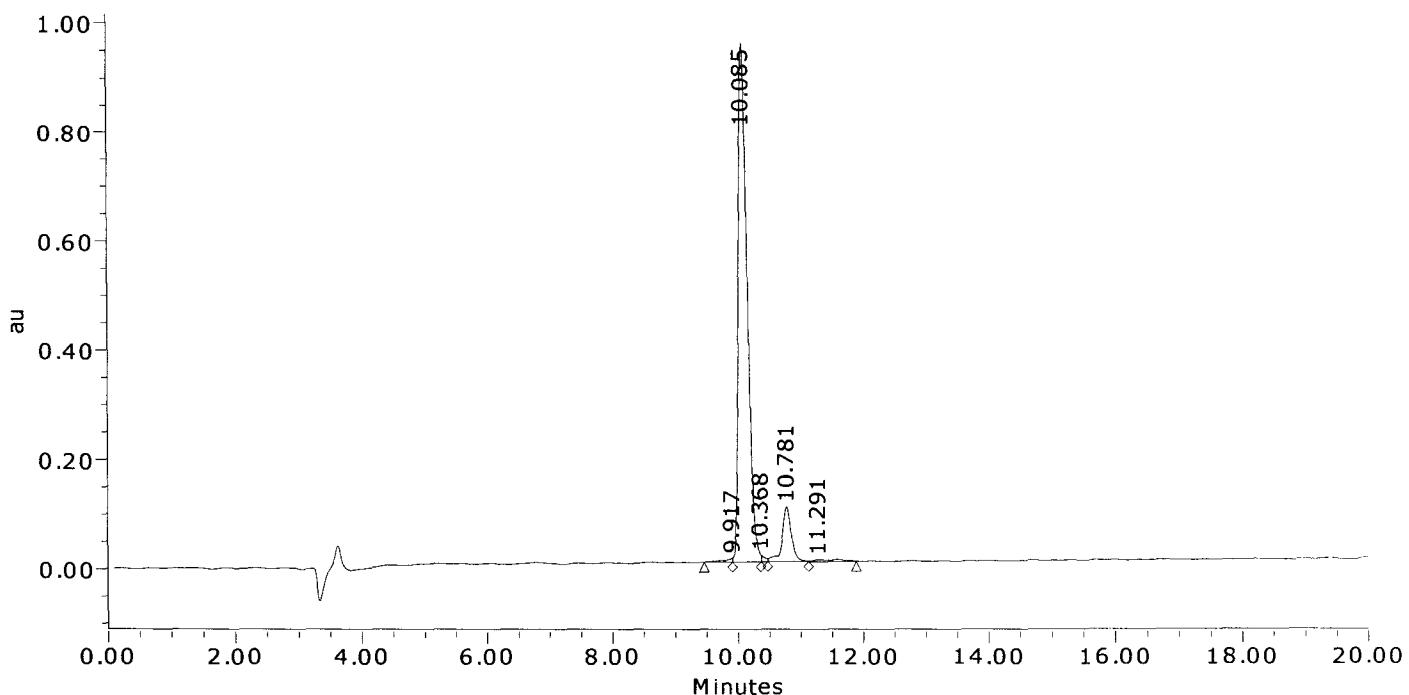
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344853/SW05101T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:24:49 CST  
Sample ID: 344853 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344853\_A Final\_PDA  
Date Acquired: 5/16/2008 21:35:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

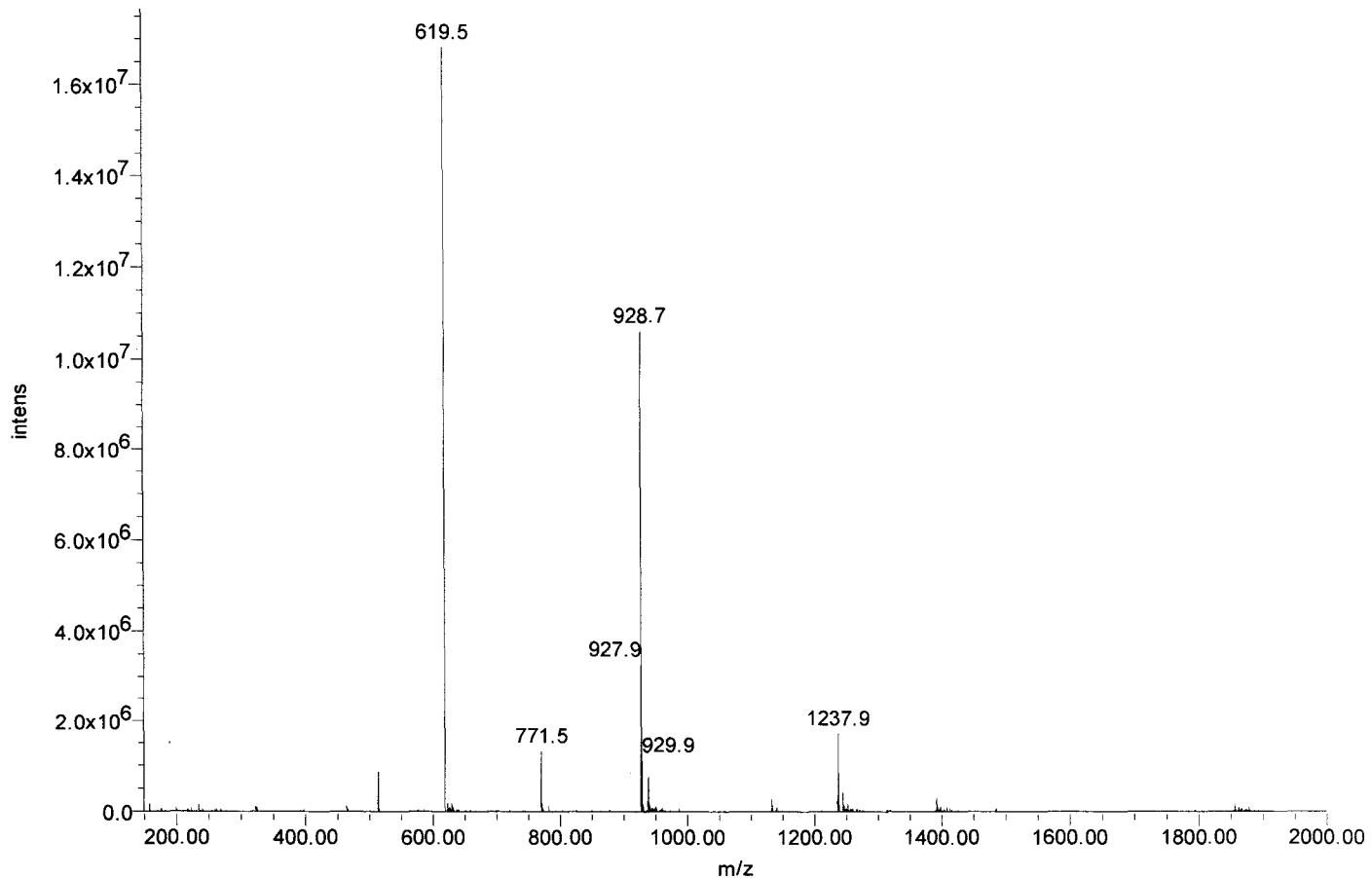


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.7	9.917	72078	7480
2	88.2	10.085	9415214	950339
3	0.5	10.368	52059	12659
4	9.8	10.781	1044247	100103
5	0.9	11.291	95922	3333
Sum	100.00		10679520	1073913.3

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344853      **Lot # :** SW05101T      **Chemist :** Yan Li

**Date Acquired :** 5/20/2008 14:05:31 CST  
**Expected MS :** MW: 1855.1  
**Acq. Method Set :** Import  
**Processing Method :** 344853\_A Final\_MS  
**Data Path :** My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
**Run Time :** 1.0 Minutes  
**Flow rate :** 1.0 mL/min  
**Buffers :** A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
**Instruments :** Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #114**  
ELPQRETWTVDIQQ  
Cat#5823 Lot#080132  
Net Wt. 1mg

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.02	Leu	1.00	1.13	Thr	2.00	2.02
Asx	2.00	2.00	Lys	1.00	1.02	Trp	1.00	0.00
Glx	4.00	3.77	Pro	1.00	0.86	Val	1.00	*1
Ile	1.00	1.00						

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:**

Yan Li

Date: 05/21/08

Quality Control Department

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Tel. 81-297-45-2211 Fax. 81-297-45-2252

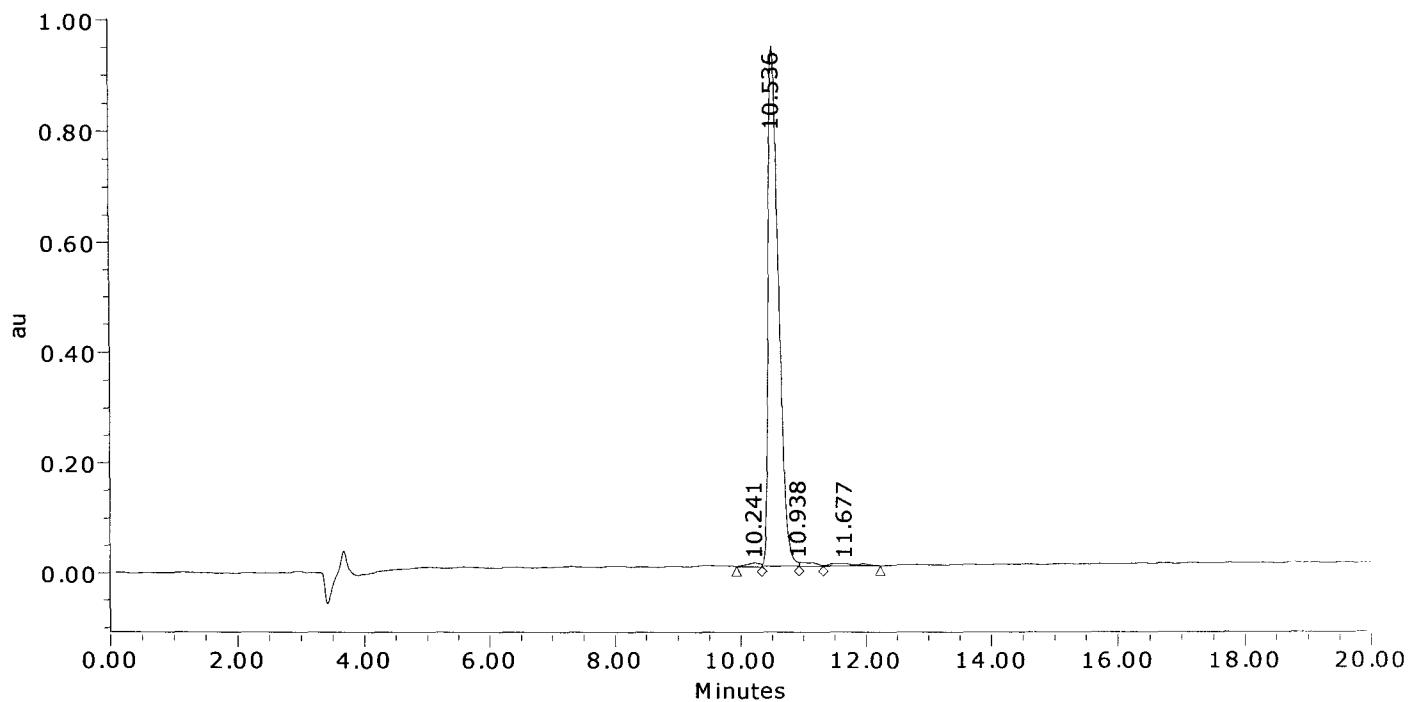
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344854/SW05103T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:06:58 CST  
Sample ID: 344854 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344854\_A Final\_PDA  
Date Acquired: 5/16/2008 22:52:15 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



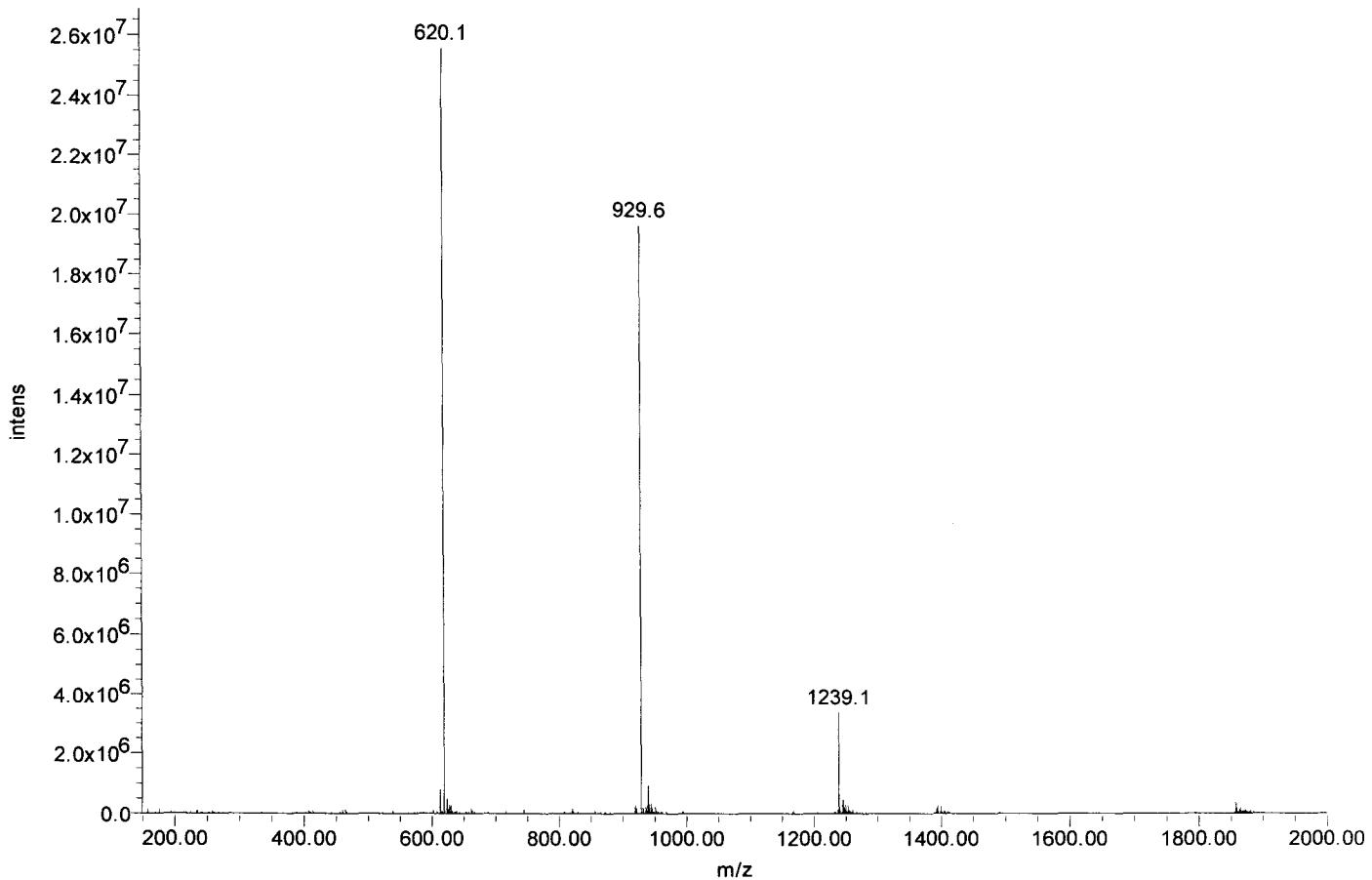
	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.8	10.241	94147	6488
2	96.8	10.536	10793027	938995
3	1.1	10.938	118871	6655
4	1.3	11.677	148275	4409
Sum	100.00		11154320	956546.4

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344854      **Lot # :** SW05103T      **Chemist :** Yan Li

Date Acquired : 5/19/2008 16:00:20 CST  
Expected MS : MW: 1857.1  
Acq. Method Set : Import  
Processing Method : 344854\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #115  
RETWTIVNDIQKILVGV  
Cat#5824 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344855                   **Lot #:** SW05104T  
**Sequence:** Arg-Glu-Thr-Trp-Thr-Val-Asn-Asp-Ile-Gln-Lys-Leu-Val-Gly-Val  
**Molecular Weight:** 1758.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Ile	1.00	0.95		Thr	2.00	1.92	
Asx	2.00	1.92		Leu	1.00	1.11		Trp	1.00	0.00	*1
Glx	2.00	1.83		Lys	1.00	1.02		Val	3.00	2.85	
Gly	1.00	1.01									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/21/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

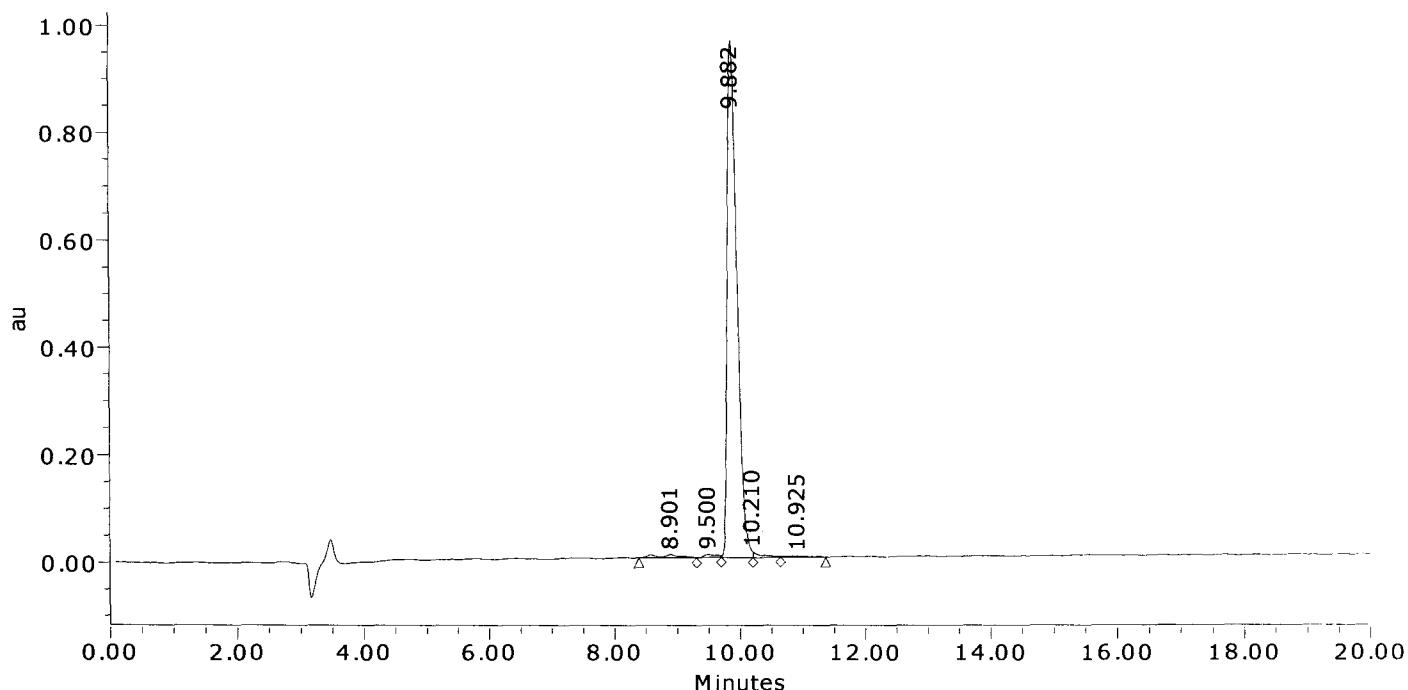
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344855/SW05104T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/19/2008 12:43:39 CST
Sample ID:	344855	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344855_A Final_PDA
Date Acquired:	5/16/2008 19:40:18 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

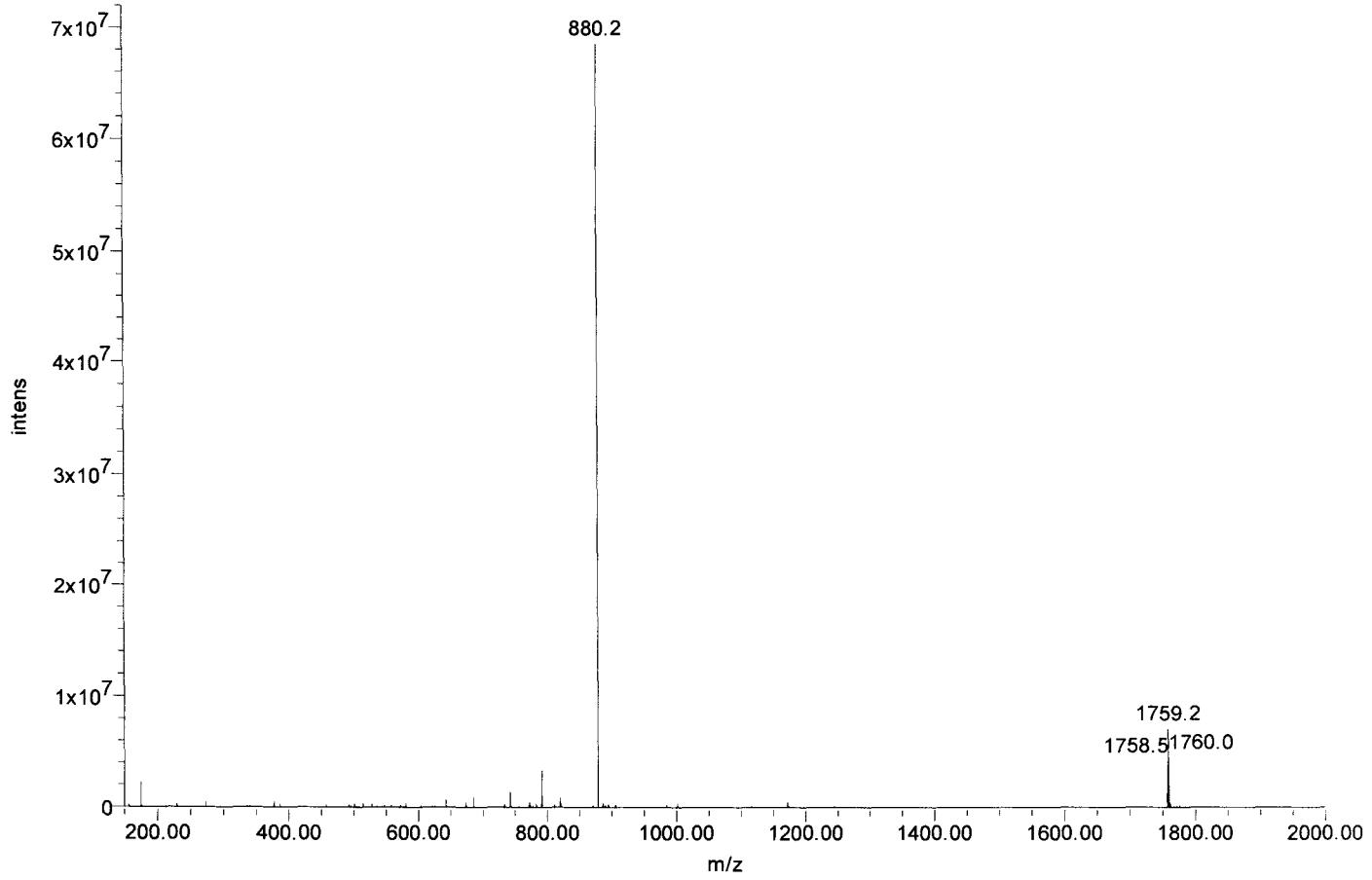


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	1.4	8.901	147376	5920
2	0.7	9.500	78380	5365
3	96.5	9.882	10286211	961667
4	0.9	10.210	91404	10285
5	0.5	10.925	58057	2475
<b>Sum</b>	<b>100.00</b>		<b>10661428</b>	<b>985710.8</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344855      **Lot # :** SW05104T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 19:40:18 CST  
Expected MS : MW: 1758.0  
Acq. Method Set : Import  
Processing Method : 344855\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #116  
TVNDIQKLVGVLNWA  
Cat#5825 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344856                   **Lot #:** SW05160T  
**Sequence:** Thr-Val-Asn-Asp-Ile-Gln-Lys-Leu-Val-Gly-Val-Leu-Asn-Trp-Ala  
**Molecular Weight:** 1670.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 84.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** Off White lyophilized powder  
**Peptide Content:** 68.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/22/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.07		Ile	1.00	0.97		Thr	1.00	0.89	
Asx	3.00	2.58		Leu	2.00	2.15		Trp	1.00	0.00	*1
Glx	1.00	1.00		Lys	1.00	1.03		Val	3.00	2.94	
Gly	1.00	1.06									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/29/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

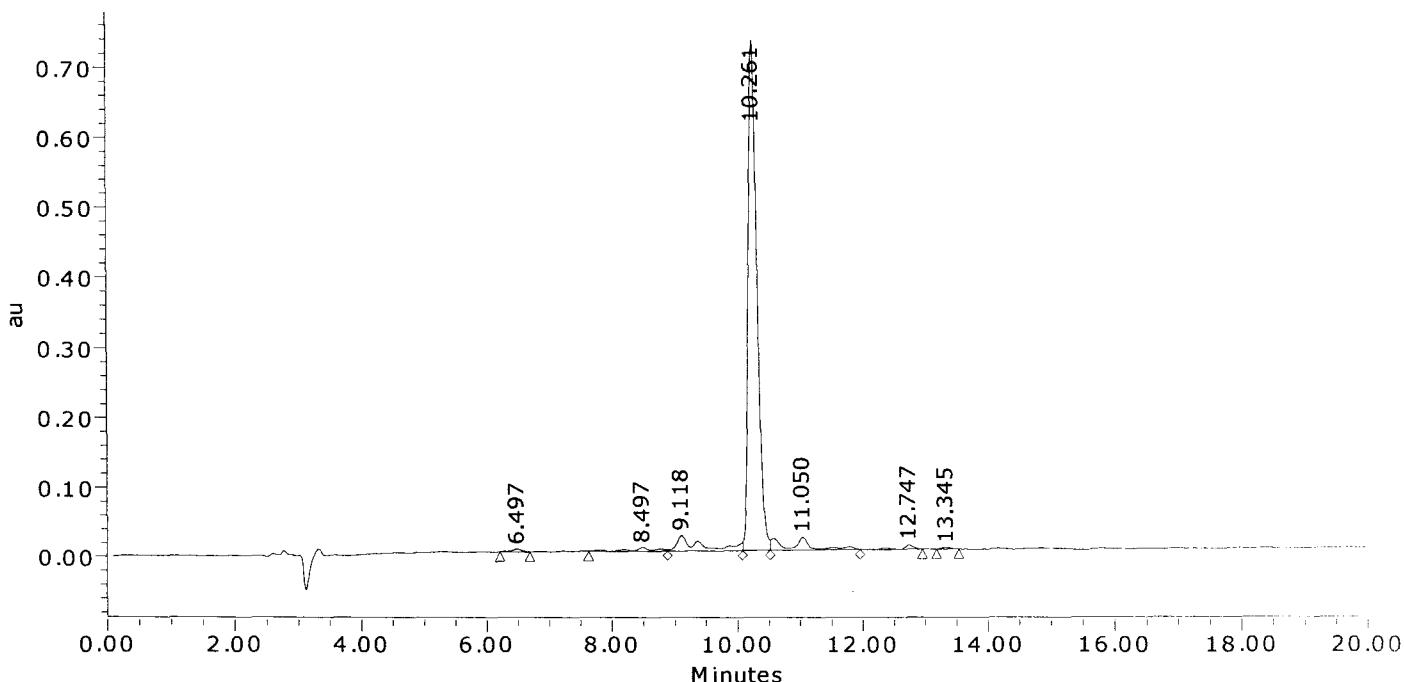
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344856/SW05160T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 11:18:16 CST  
Sample ID: 344856 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344856\_A Final\_PDA  
Date Acquired: 5/24/2008 4:31:39 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

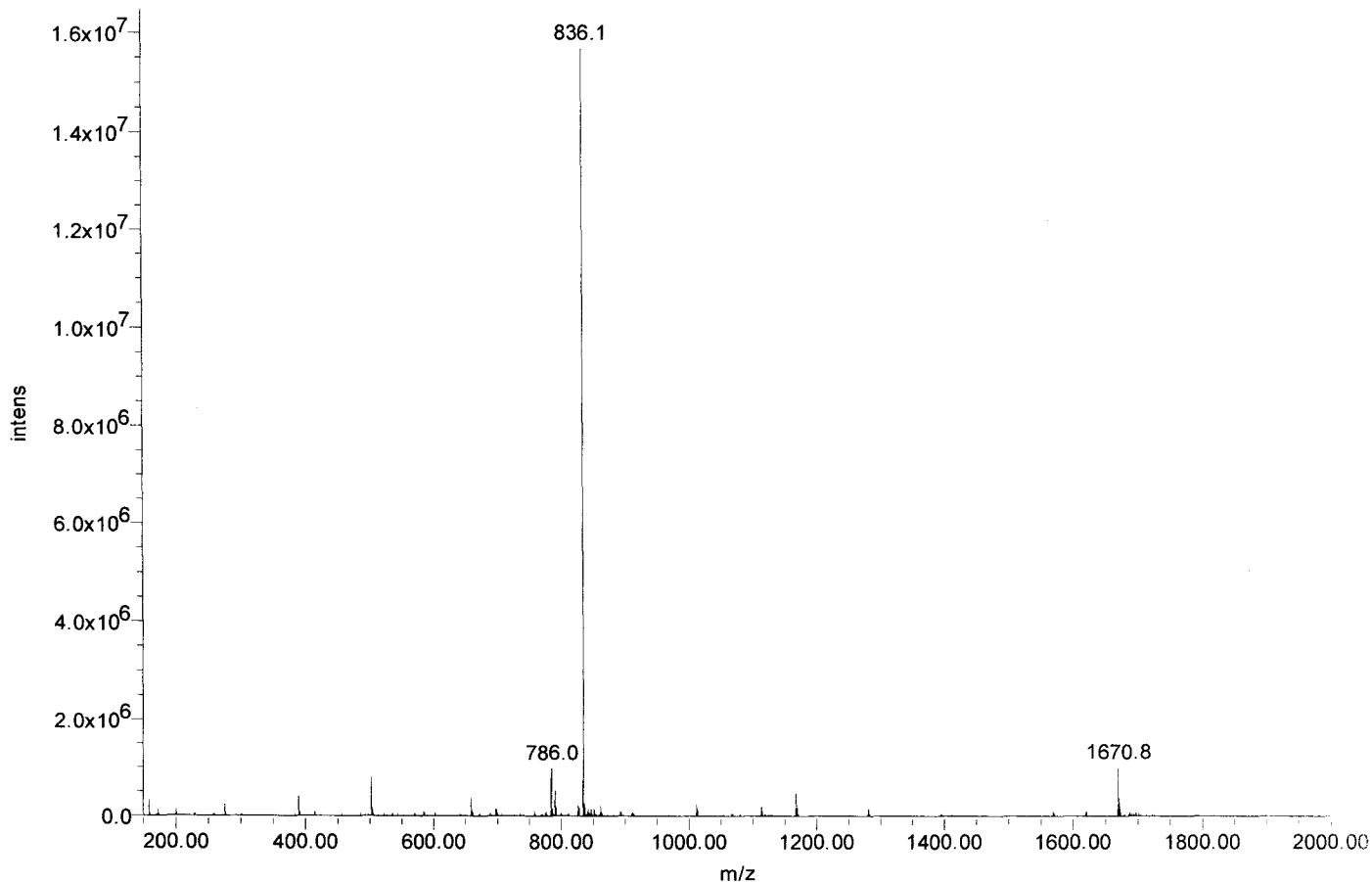


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.5	6.497	44040	4181
2	1.6	8.497	132465	5629
3	6.6	9.118	559236	22248
4	84.2	10.261	7083018	729522
5	5.8	11.050	485189	18676
6	1.1	12.747	90214	5904
7	0.2	13.345	19934	2070
<b>Sum</b>	<b>100.00</b>		<b>8414097</b>	<b>788229.9</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344856      **Lot # :** SW05160T      **Chemist :** Yan Li

Date Acquired : 5/24/2008 4:31:39 CST  
Expected MS : MW: 1670.0  
Acq. Method Set : Import  
Processing Method : 344856\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #117  
IQKLVGVLNWAAQIY  
Cat#5826 Lot#080132  
Net Wt. 1mg

**Product #:** 344857      **Lot #:** SW05207T

**Sequence:** Ile - Gln - Lys - Leu - Val - Gly - Val - Leu - Asn - Trp - Ala - Ala - Gln - Ile - Tyr

**Molecular Weight:** 1716.1 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 90.5 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 20% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 78.7 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	2.00	2.13		Ile	2.00	1.93		Tyr	1.00	1.00	
Asx	1.00	0.84		Leu	2.00	2.04		Val	2.00	1.94	
Glx	2.00	2.00		Lys	1.00	1.02					
Gly	1.00	1.05		Trp	1.00	0.00	*1				

**Remarks:** \*1 Trp was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

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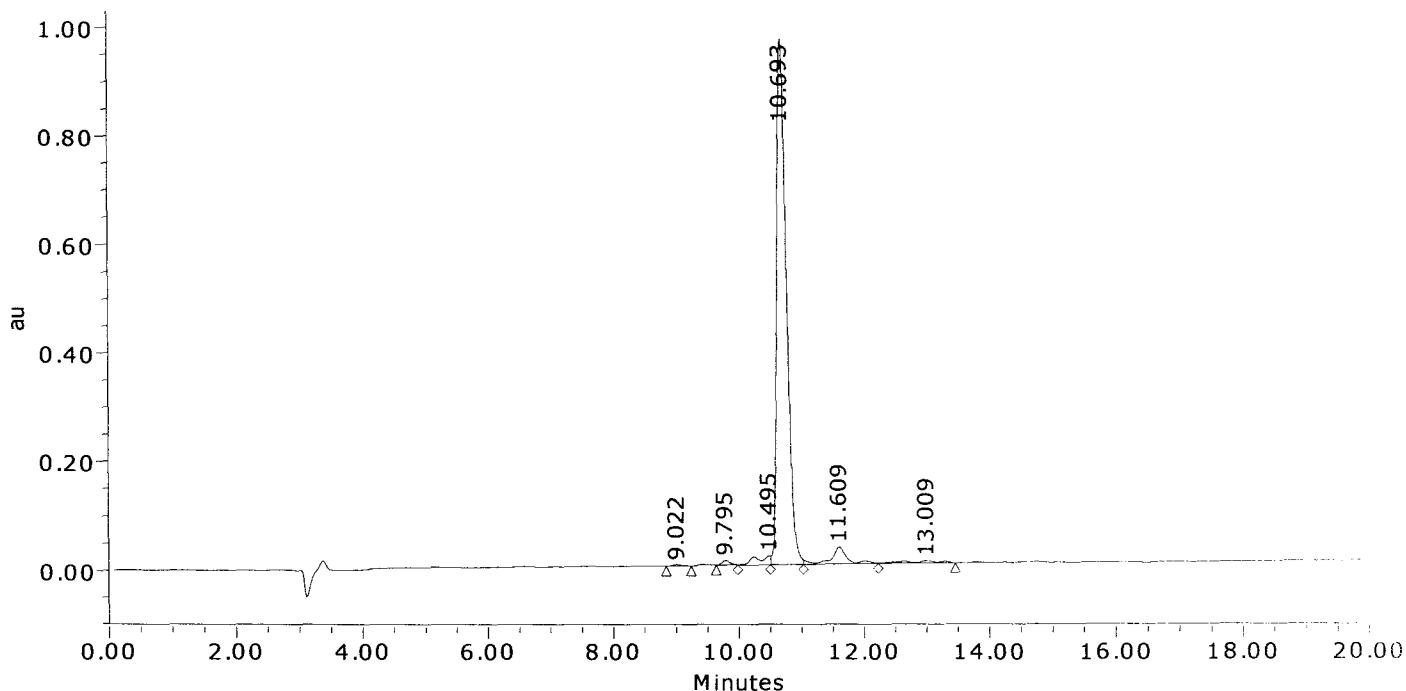
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344857/SW05207T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters.lmf\2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 13:42:01 CST  
Sample ID: 344857 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344857\_A Final\_PDA  
Date Acquired: 5/27/2008 10:21:02 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 30% -50% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.2	9.022	25729	2386
2	0.7	9.795	79079	8766
3	2.3	10.495	267378	16087
4	90.5	10.693	10328663	967386
5	4.9	11.609	559508	31407
6	1.3	13.009	152277	4241
<b>Sum</b>	<b>100.00</b>		<b>11412634</b>	<b>1030271.9</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344857

Lot # : SW05207T

Chemist : Yan Li

Date Acquired :

5/27/2008 10:21:02 CST

Expected MS :

MW: 1716.1

Acq. Method Set :

Import

Processing Method :

344857\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

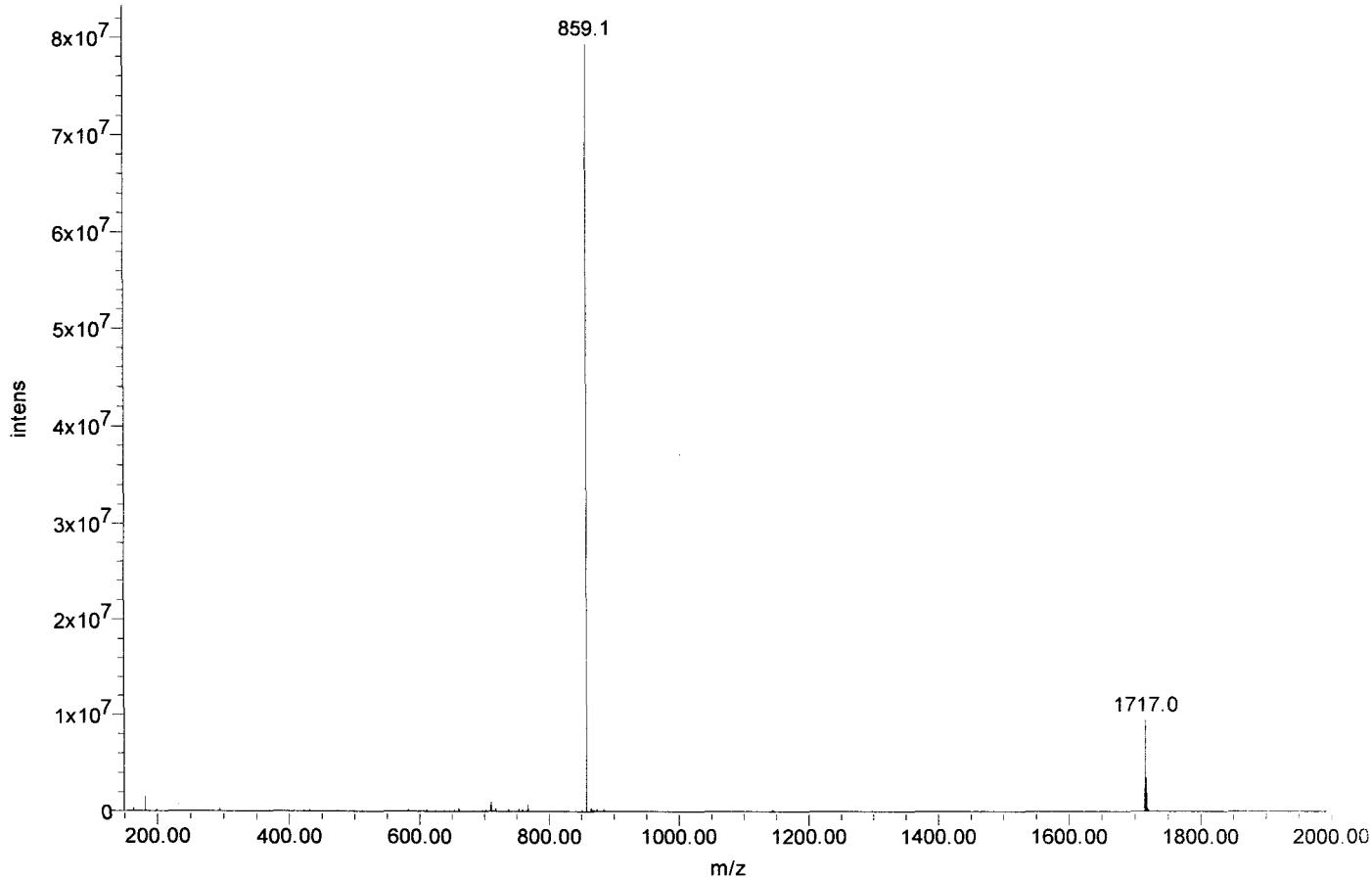
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

**Product #:** 344858                    **Lot #:** SW05100T

**Sequence:** Val - Gly - Val - Leu - Asn - Trp - Ala - Ala - Gln - Ile - Tyr - Pro - Gly - Ile - Lys

**Molecular Weight:** 1629.0 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 96.2 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 81.9 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	2.00	2.11		Ile	2.00	1.92		Trp	1.00	0.00	*1
Asx	1.00	0.83		Leu	1.00	1.00		Tyr	1.00	0.97	
Glx	1.00	1.02		Lys	1.00	0.99		Val	2.00	1.94	
Gly	2.00	2.10		Pro	1.00	1.17					

**Remarks:** \*1 Trp was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

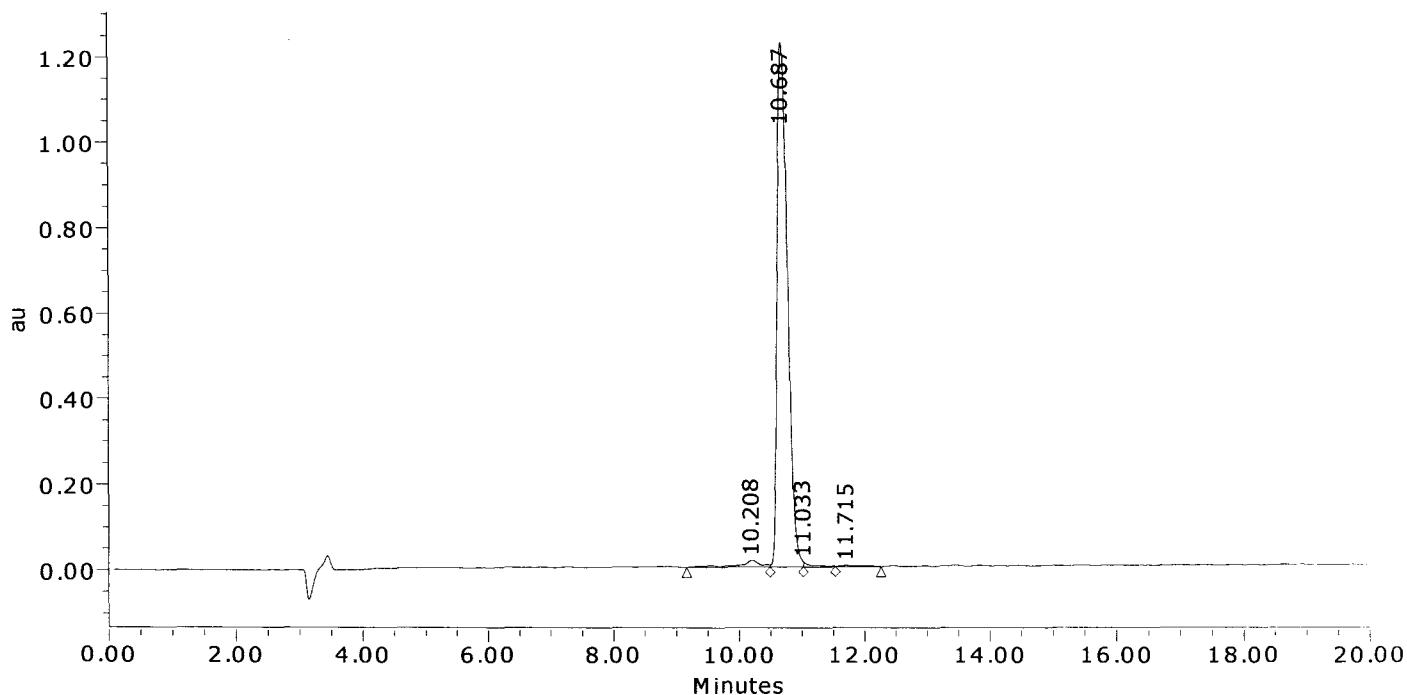
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344858/SW05100T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:29:48 CST  
Sample ID: 344858 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344858\_A Final\_PDA  
Date Acquired: 5/16/2008 18:25:01 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

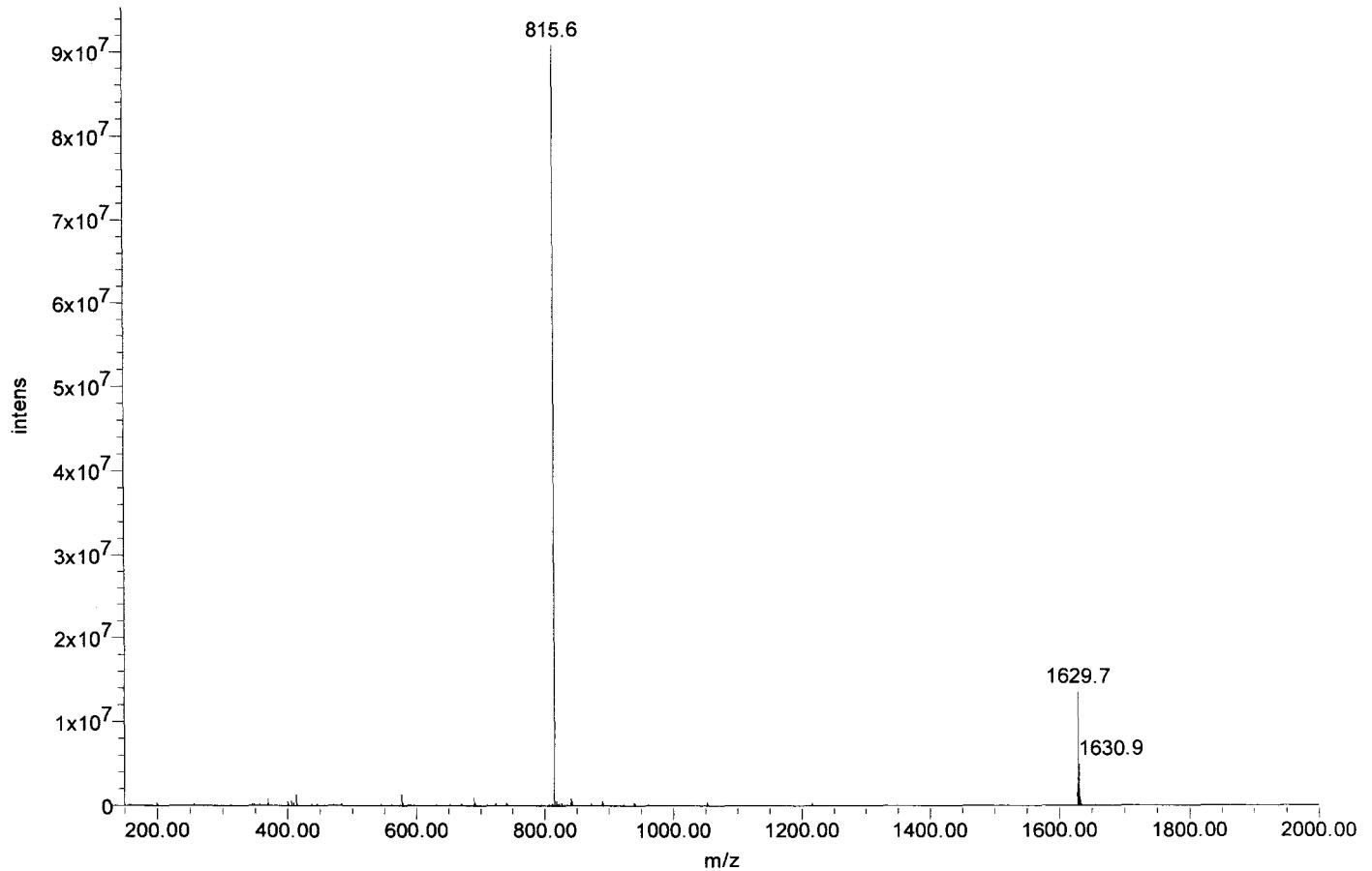


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.5	10.208	366516	15417
2	96.2	10.687	14128249	1228778
3	0.8	11.033	113743	11845
4	0.5	11.715	70703	3025
Sum	100.00		14679210	1259065.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344858      **Lot # :** SW05100T      **Chemist :** Yan Li

Date Acquired : 5/16/2008 18:25:01 CST  
Expected MS : MW: 1629.0  
Acq. Method Set : Import  
Processing Method : 344858\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #119  
NWAAQIYPGIKTKHL  
Cat#5828 Lot#/080132  
Net Wt. 1mg

**Product #:** 344859                   **Lot #:** SW05142T

**Sequence:** Asn - Trp - Ala - Ala - Gln - Ile - Tyr - Pro - Gly - Ile - Lys - Thr - Lys - His - Leu

**Molecular Weight:** 1740.0 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 96.8 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 71.9 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/21/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	2.00	2.06		His	1.00	1.00		Pro	1.00	1.17	
Asx	1.00	0.75		Ile	2.00	1.89		Thr	1.00	0.99	
Glx	1.00	1.04		Leu	1.00	1.00		Trp	1.00	0.00	*1
Gly	1.00	1.02		Lys	2.00	1.98		Tyr	1.00	0.99	

**Remarks:** \*1 Trp was completely destroyed during hydrolysis.

**Not for human use, research purposes only.**

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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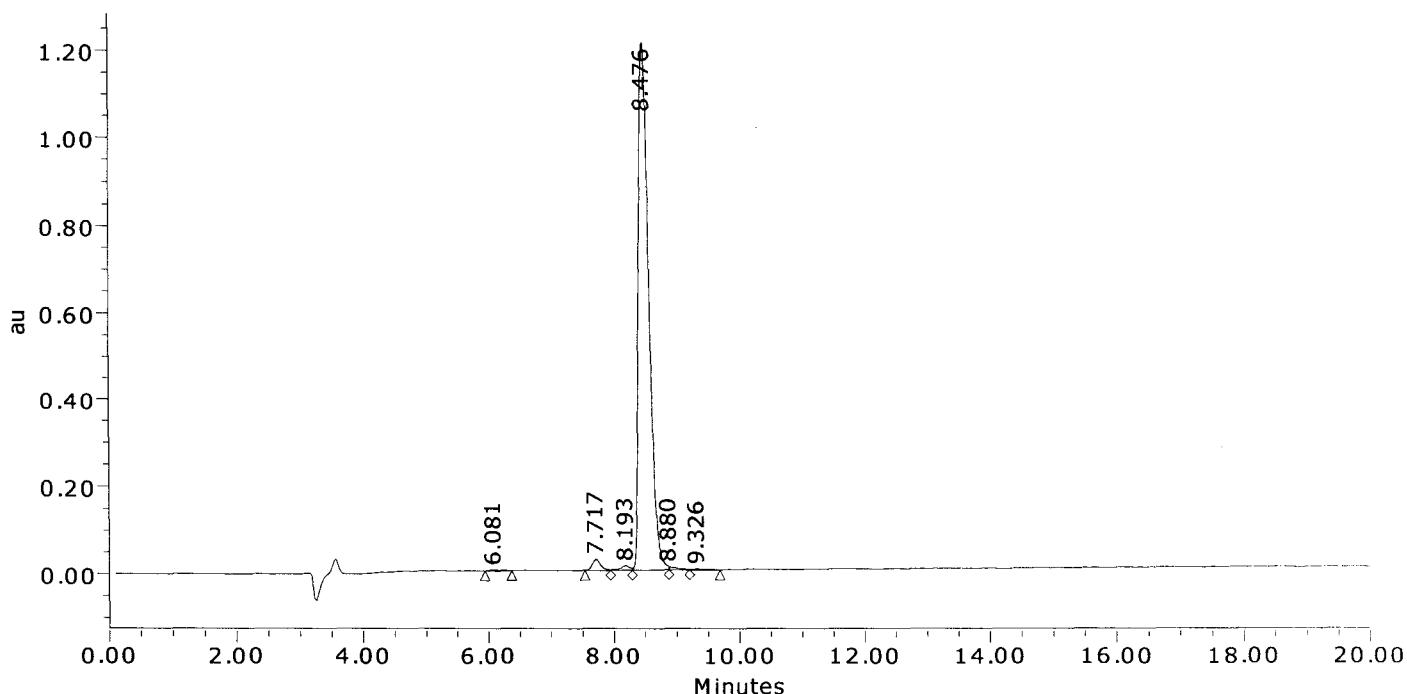
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344859/SW05142T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 9:31:15 CST  
Sample ID: 344859 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344859\_A Final\_PDA  
Date Acquired: 5/21/2008 14:04:03 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

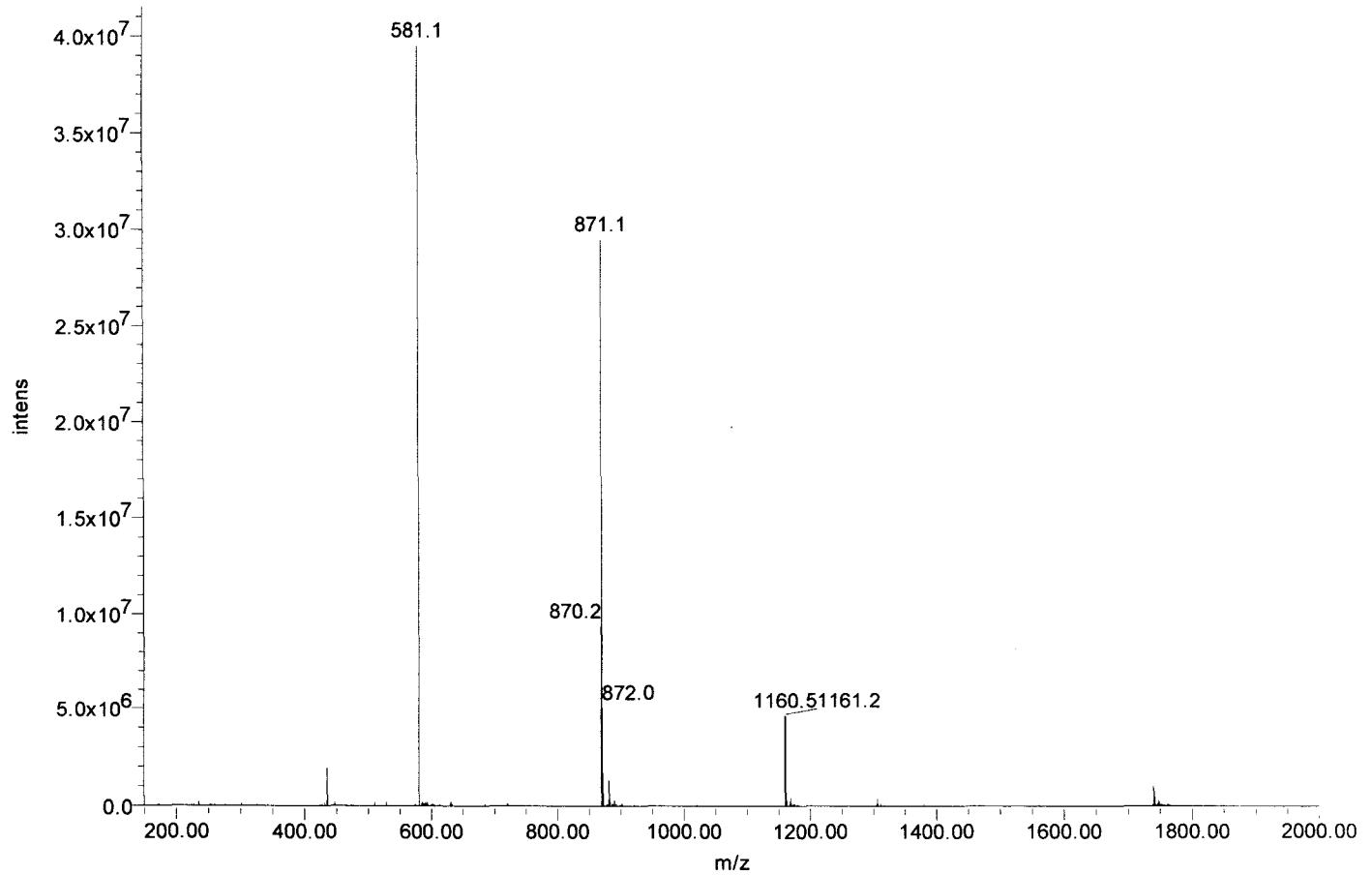
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.2	6.081	29323	2831
2	1.6	7.717	227124	24687
3	0.7	8.193	107091	10331
4	96.8	8.476	13880776	1209418
5	0.5	8.880	68084	7705
6	0.2	9.326	27425	2028
<b>Sum</b>	<b>100.00</b>		<b>14339823</b>	<b>1256998.8</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344859</b>	<b>Lot # :</b> SW05142T	<b>Chemist :</b> Yan Li
<b>Date Acquired :</b>	5/21/2008 16:50:59 CST		
<b>Expected MS :</b>	MW: 1740.0		
<b>Acq. Method Set :</b>	Import		
<b>Processing Method :</b>	344859_A Final_MS		
<b>Data Path :</b>	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
<b>Run Time :</b>	1.0 Minutes		
<b>Flow rate :</b>	1.0 mL/min		
<b>Buffers :</b>	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
<b>Instruments :</b>	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





## Certificate of Analysis

**SIVmac239 Pol #120**  
QIYPGIKTKHLCRI.I  
Cat#5829 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344860                           **Lot #:** SW05136T  
**Sequence:** Gln-Ile-Tyr-Pro-Gly-Ile-Lys-Thr-Lys-His-Leu-Cys-Arg-Leu-Ile  
**Molecular Weight:** 1783.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW " (see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 86.8% (see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 72.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	
Arg	1.00	1.00	His	1.00	0.99	Pro	1.00	0.94	
Cys	1.00	0.00	*1	Ile	3.00	2.74	Thr	1.00	0.97
Glx	1.00	0.94		Leu	2.00	2.00	Tyr	1.00	0.91
Gly	1.00	1.00		Lys	2.00	1.96			

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li D  
Quality Control Department

Date: 05/25/08

## Quality Control Department

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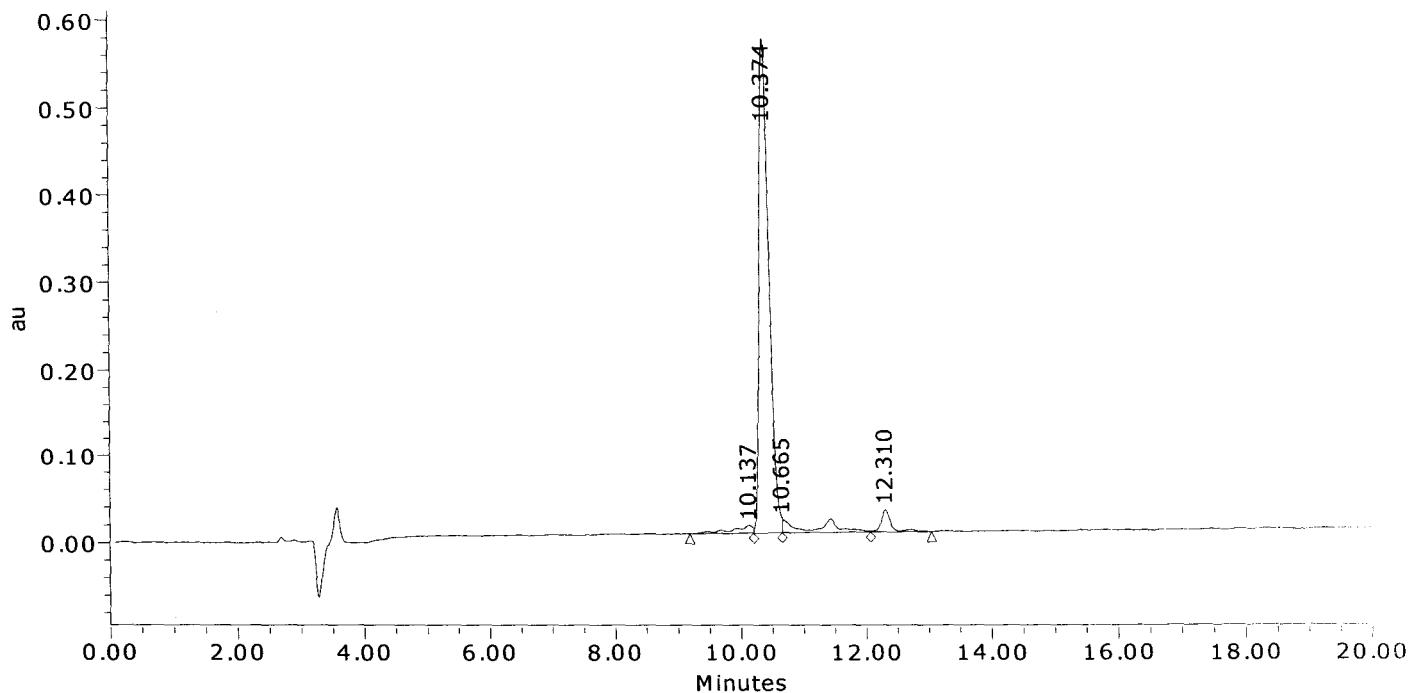
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344860/SW05136T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 9:08:02 CST  
Sample ID: 344860 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344860\_A Final\_PDA  
Date Acquired: 5/21/2008 13:26:28 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	2.8	10.137	197683	8605
2	86.8	10.374	6187521	567864
3	6.5	10.665	466070	15549
4	3.9	12.310	280045	24909
<b>Sum</b>	<b>100.00</b>		<b>7131319</b>	<b>616927.6</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344860

Lot # : SW05136T

Chemist : Yan Li

Date Acquired :

5/21/2008 16:49:05 CST

Expected MS :

MW: 1783.2

Acq. Method Set :

Import

Processing Method :

344860\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

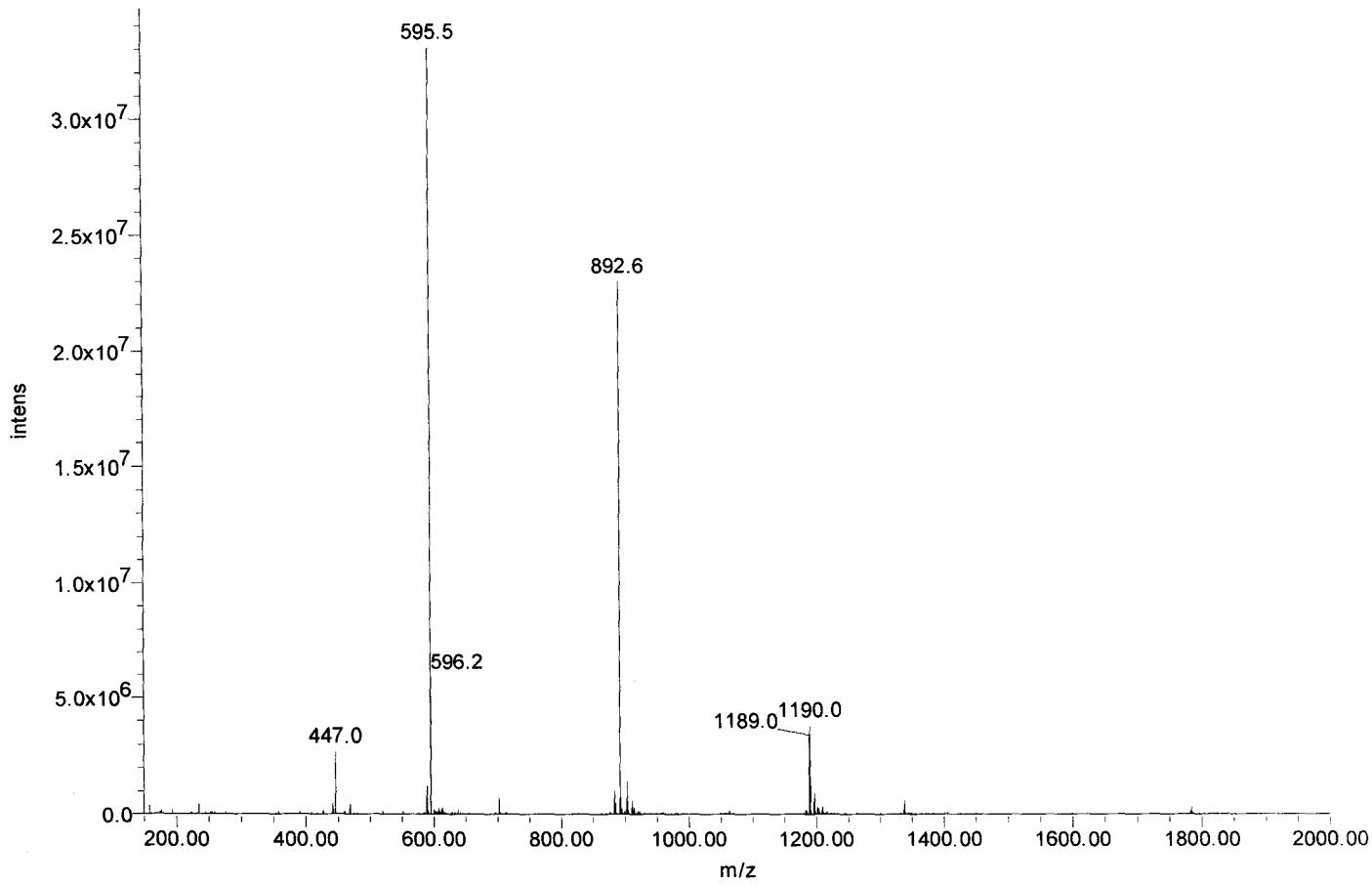
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #121  
GIKTKHLCRLIRGKM  
Cat#5830 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344861                   **Lot #:** SW05173T  
**Sequence:** Gly-Ile-Lys-Thr-Lys-His-Leu-Cys-Arg-Leu-Ile-Arg-Gly-Lys-Met  
**Molecular Weight:** 1754.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 98.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 68.0%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/23/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00		His	1.00	1.01		Lys	3.00	2.98	
Cys	1.00	0.00	*1	Ile	2.00	1.89		Met	1.00	1.01	
Gly	2.00	2.04		Leu	2.00	2.05		Thr	1.00	1.08	

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

*Yan Li*  
Quality Control Department

Date: 05/29/08

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

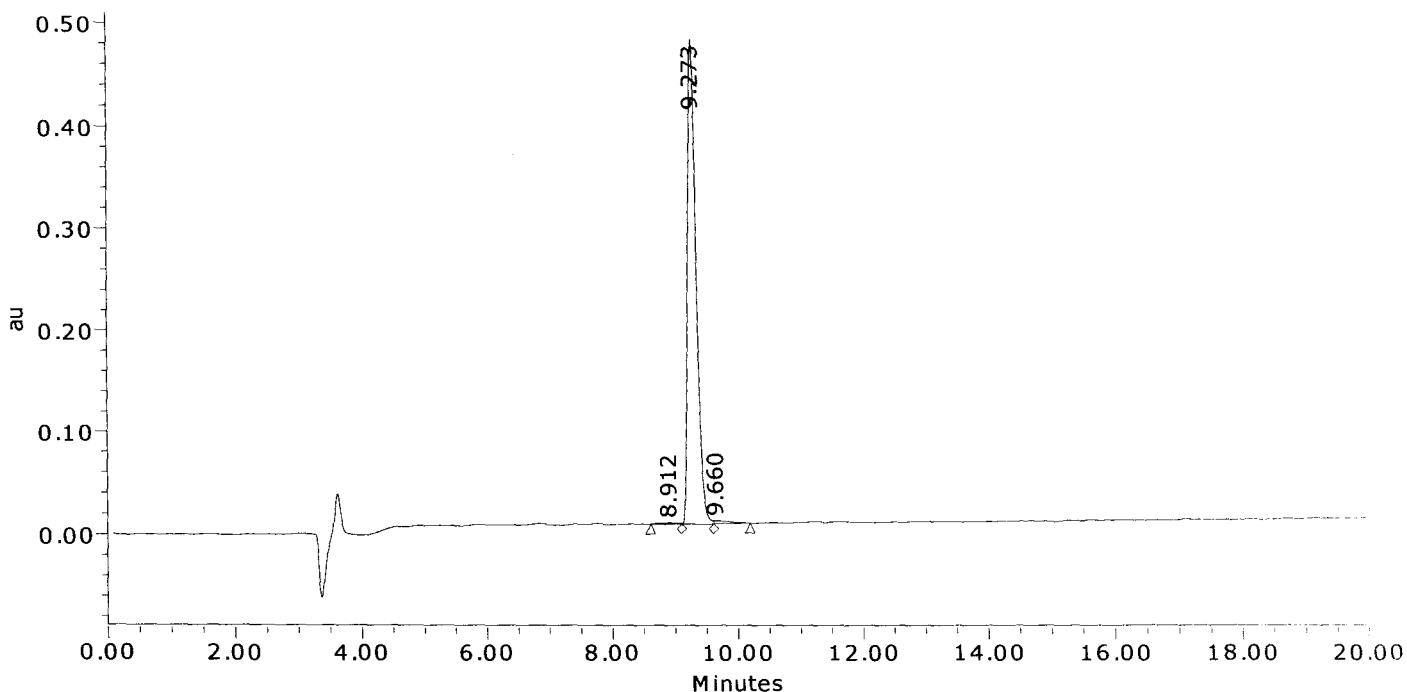
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344861/SW05173T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 13:44:53 CST  
Sample ID: 344861 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344861\_A Final\_PDA  
Date Acquired: 5/23/2008 22:55:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	8.912	27142	1460
2	98.3	9.273	4477945	472998
3	1.1	9.660	51982	2845
Sum	100.00		4557069	477303.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344861**

**Lot # : SW05173T**

**Chemist : Yan Li**

Date Acquired :

5/23/2008 22:55:04 CST

Expected MS :

MW: 1754.2

Acq. Method Set :

Import

Processing Method :

344861\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

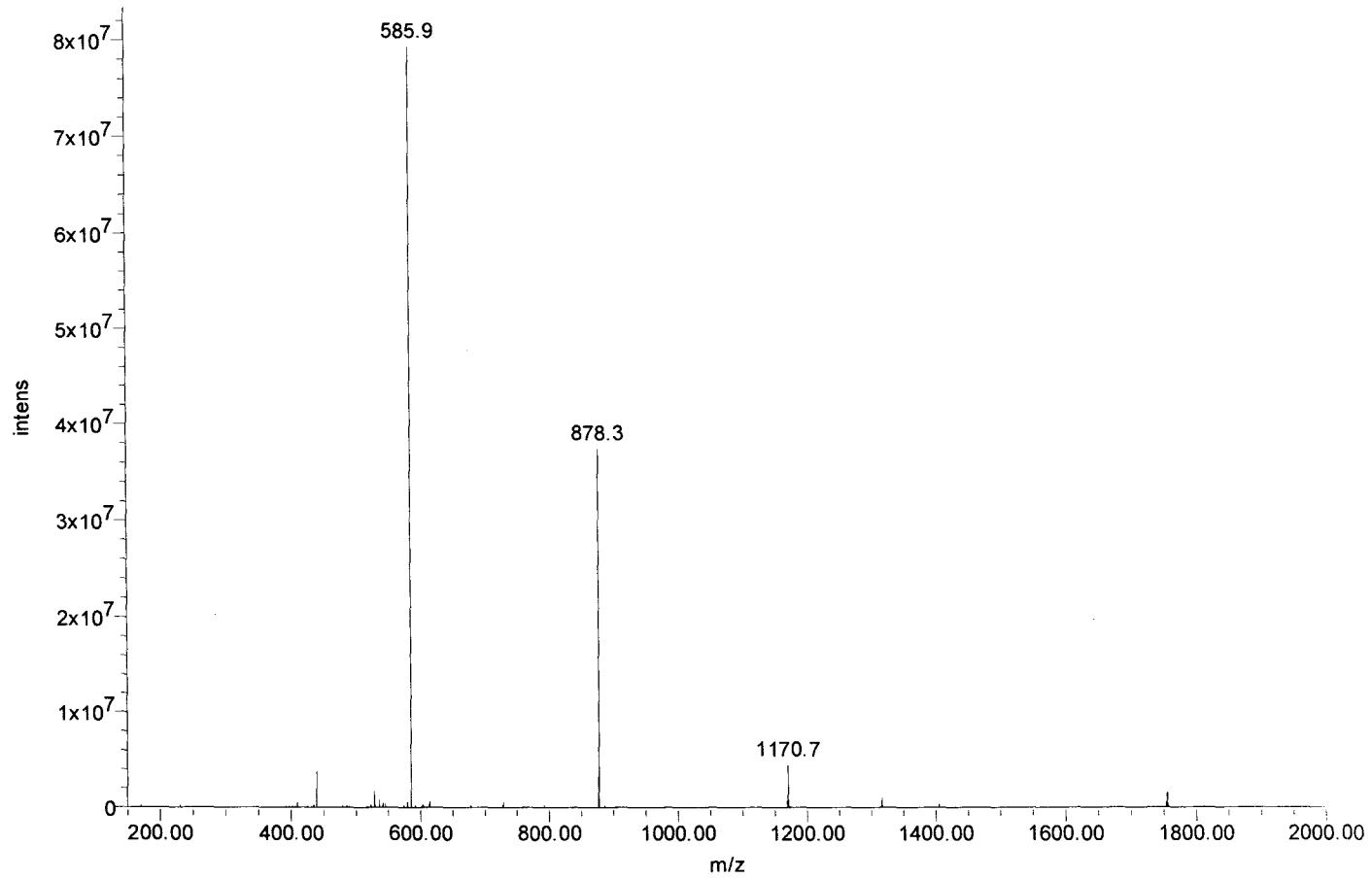
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #122  
KHLCRLJRGKMTLTE  
Cat#5831 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344862                   **Lot #:** SW05132T

**Sequence:** Lys-His-Leu-Cys-Arg-Leu-Ile-Arg-Gly-Lys-Met-Thr-Leu-Thr-Glu

**Molecular Weight:** 1799.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 62.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00		His	1.00	0.99		Lys	2.00	2.02	
Cys	1.00	0.00	*1	Ile	1.00	0.94		Met	1.00	1.02	
Glx	1.00	0.98		Leu	3.00	3.08		Thr	2.00	1.97	
Gly	1.00	1.02									

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 05/25/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

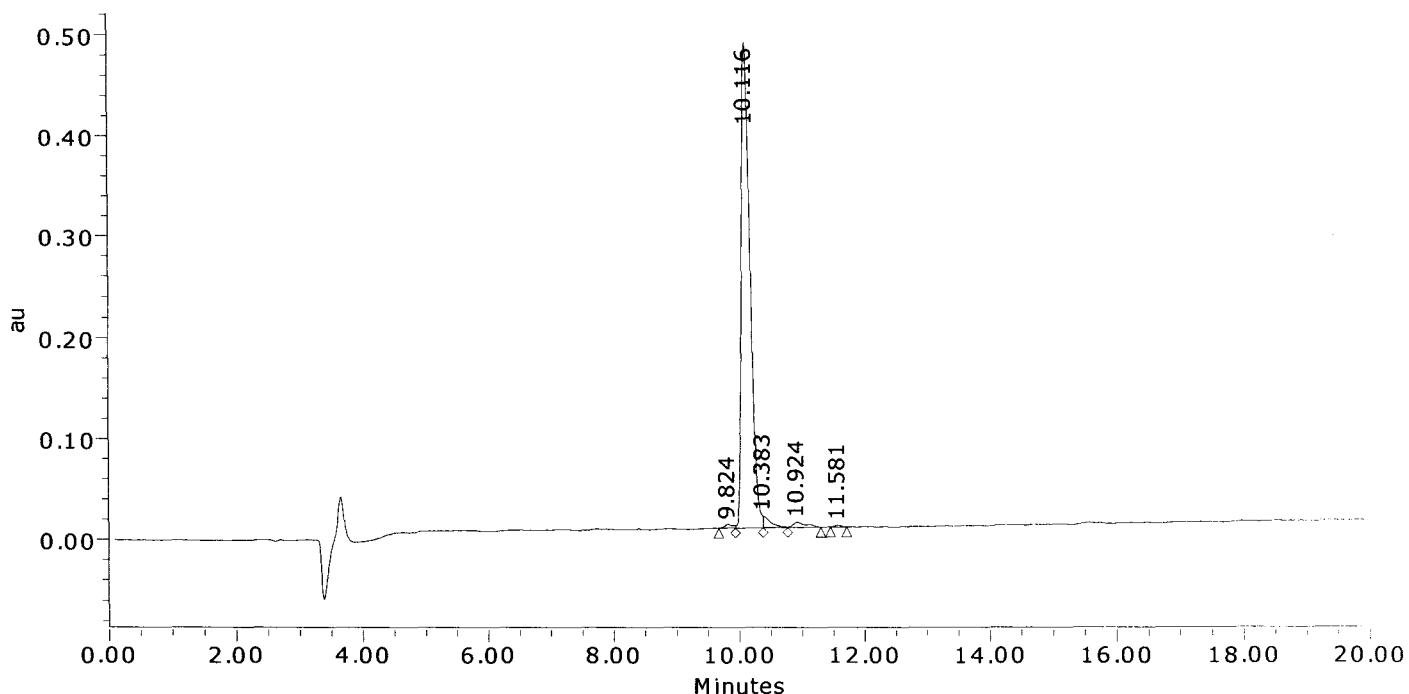
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344862/SW05132T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 13:38:41 CST  
Sample ID: 344862 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344862\_A Final\_PDA  
Date Acquired: 5/22/2008 13:00:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.7	9.824	33520	3902
2	95.6	10.116	4673770	481444
3	1.9	10.383	92560	11820
4	1.6	10.924	76035	5032
5	0.2	11.581	11641	1731
Sum	100.00		4887527	503929.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344862**

**Lot # : SW05132T**

**Chemist : Yan Li**

Date Acquired :

5/22/2008 13:00:35 CST

Expected MS :

MW: 1799.2

Acq. Method Set :

Import

Processing Method :

344862\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

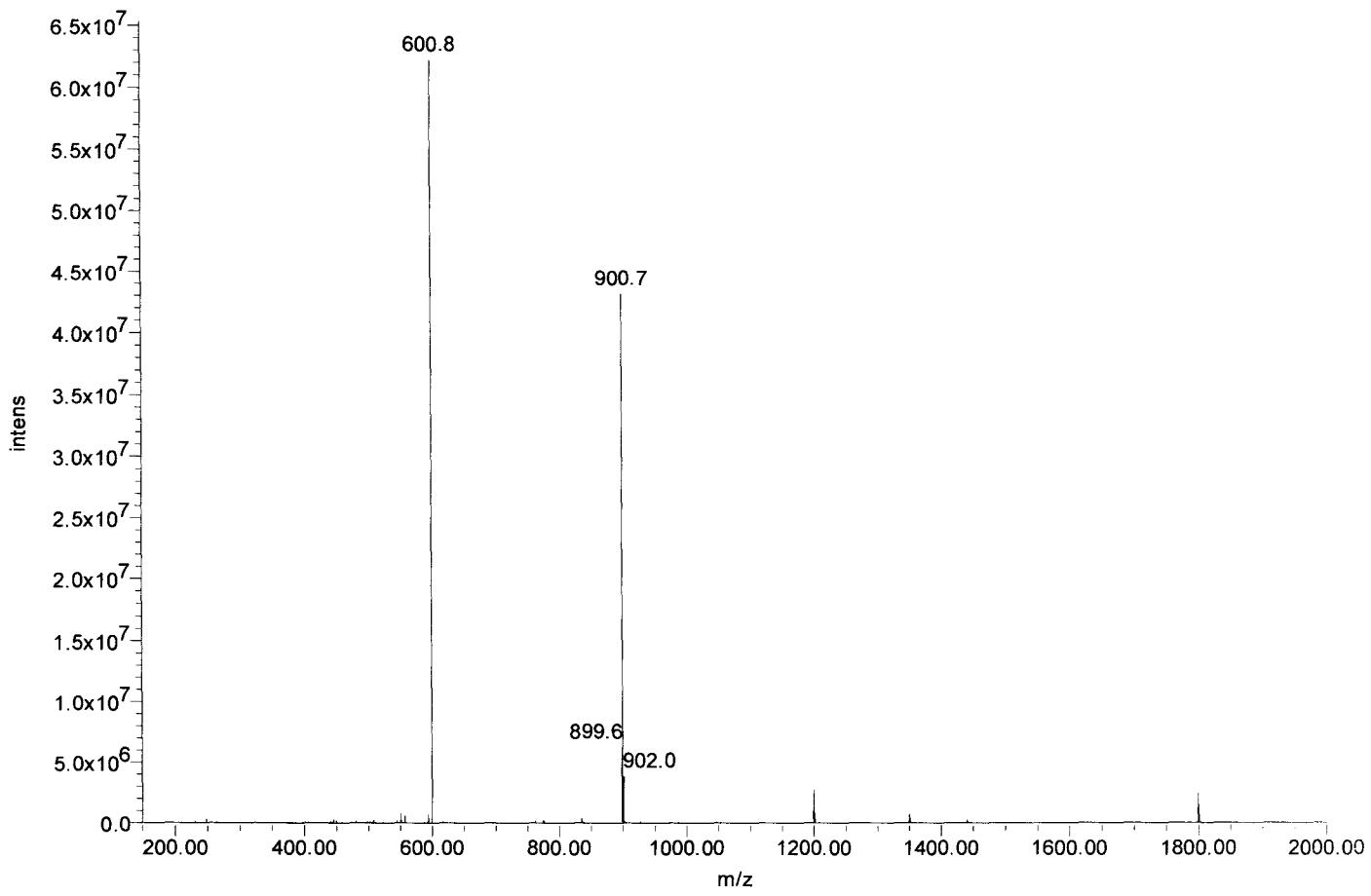
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #123**  
RLIRGKMLTEEVQW  
Cat#5832 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Jan Li **Date:** 06/05/08  
**Quality Control Department**

## Quality Control Department

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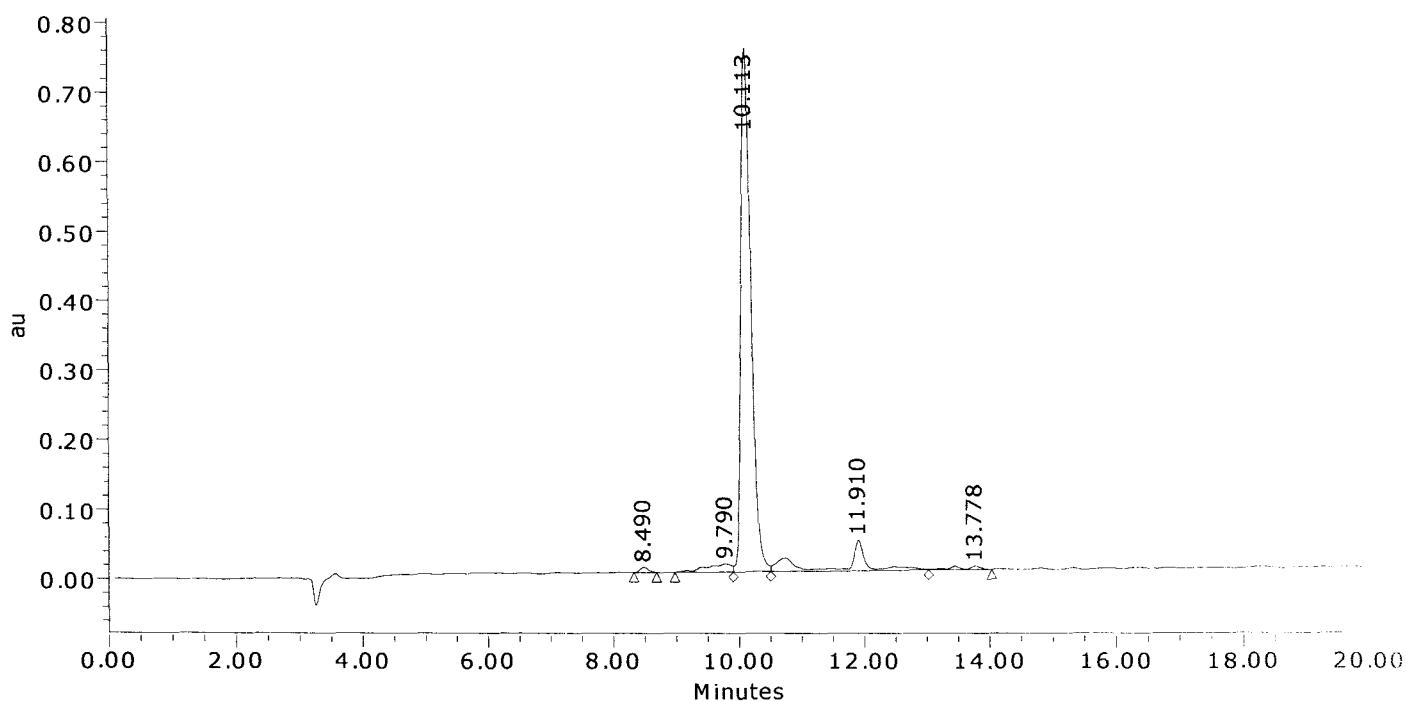
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344863/SW06005T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	6/3/2008 12:51:15 CST
Sample ID:	344863	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344863_A Final_PDA
Date Acquired:	6/3/2008 11:47:25 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.7	8.490	66660	7476
2	3.3	9.790	333586	11798
3	83.6	10.113	8430139	753973
4	11.1	11.910	1120215	44140
5	1.3	13.778	129051	5266
<b>Sum</b>	<b>100.00</b>		<b>10079650</b>	<b>822652.9</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344863

Lot # : SW06005T

Chemist : Yan Li

Date Acquired :

6/3/2008 11:47:25 CST

Expected MS :

MW: 1860.2

Acq. Method Set :

Import

Processing Method :

344863\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

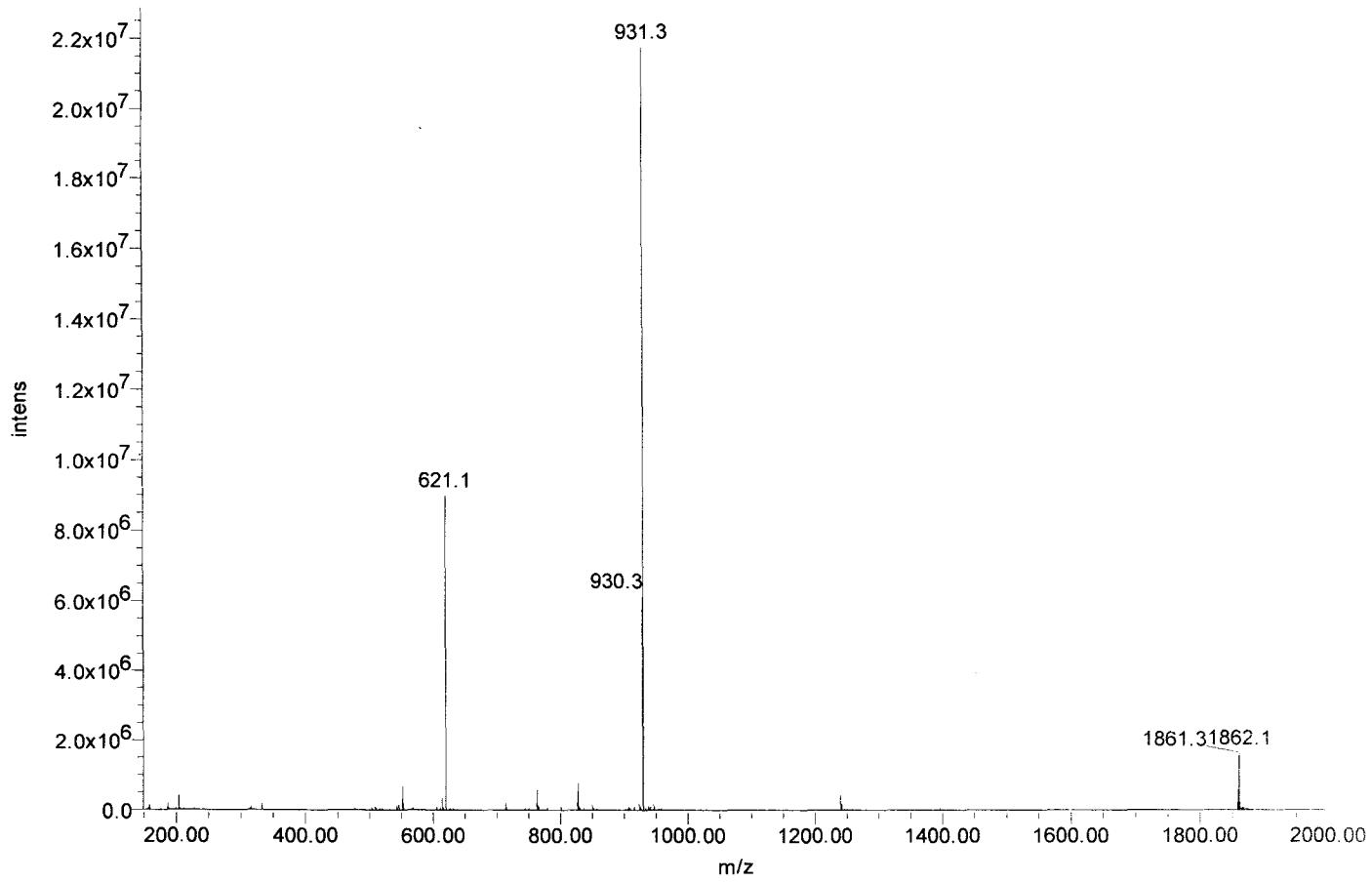
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #124  
GKMILTEEVQWTEMA  
Cat#5833 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344864                   **Lot #:** SW05148T  
**Sequence:** Gly-Lys-Met-Thr-Leu-Thr-Glu-Glu-Val-Gln-Trp-Thr-Glu-Met-Ala  
**Molecular Weight:** 1754.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 85.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 30% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 82.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Leu	1.00	1.07		Thr	3.00	2.92	
Glx	4.00	3.92		Lys	1.00	0.97		Trp	1.00	0.00	*1
Gly	1.00	0.98		Met	2.00	1.97		Val	1.00	0.99	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yan Z Li'.

Date: 05/28/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

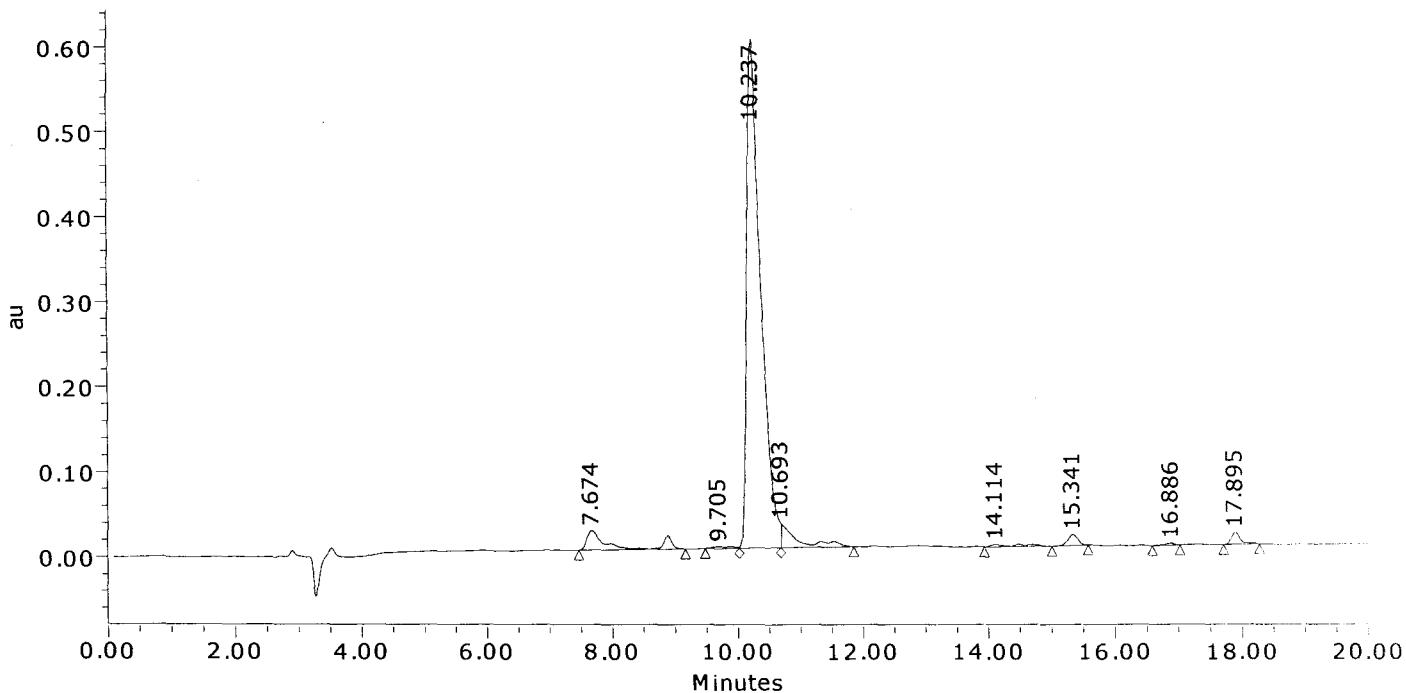
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344864/SW05148T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 11:08:19 CST  
Sample ID: 344864 Time Calculated:  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344864\_A Final\_PDA  
Date Acquired: 5/24/2008 5:56:52 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	5.2	7.674	564360	22754
2	0.5	9.705	51357	2588
3	85.8	10.237	9233178	598963
4	4.7	10.693	509863	28352
5	0.9	14.114	96891	3120
6	1.3	15.341	144886	13148
7	0.2	16.886	24363	2333
8	1.3	17.895	140010	14628
Sum	100.00		10764908	685885.3

**American Peptide Company, Inc.  
MS Analysis Report**

**Sample ID:**

**344864**

**Lot # : SW05148T**

**Chemist : Yan Li**

Date Acquired :

5/24/2008 5:56:52 CST

Expected MS :

MW: 1754.0

Acq. Method Set :

Import

Processing Method :

344864\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

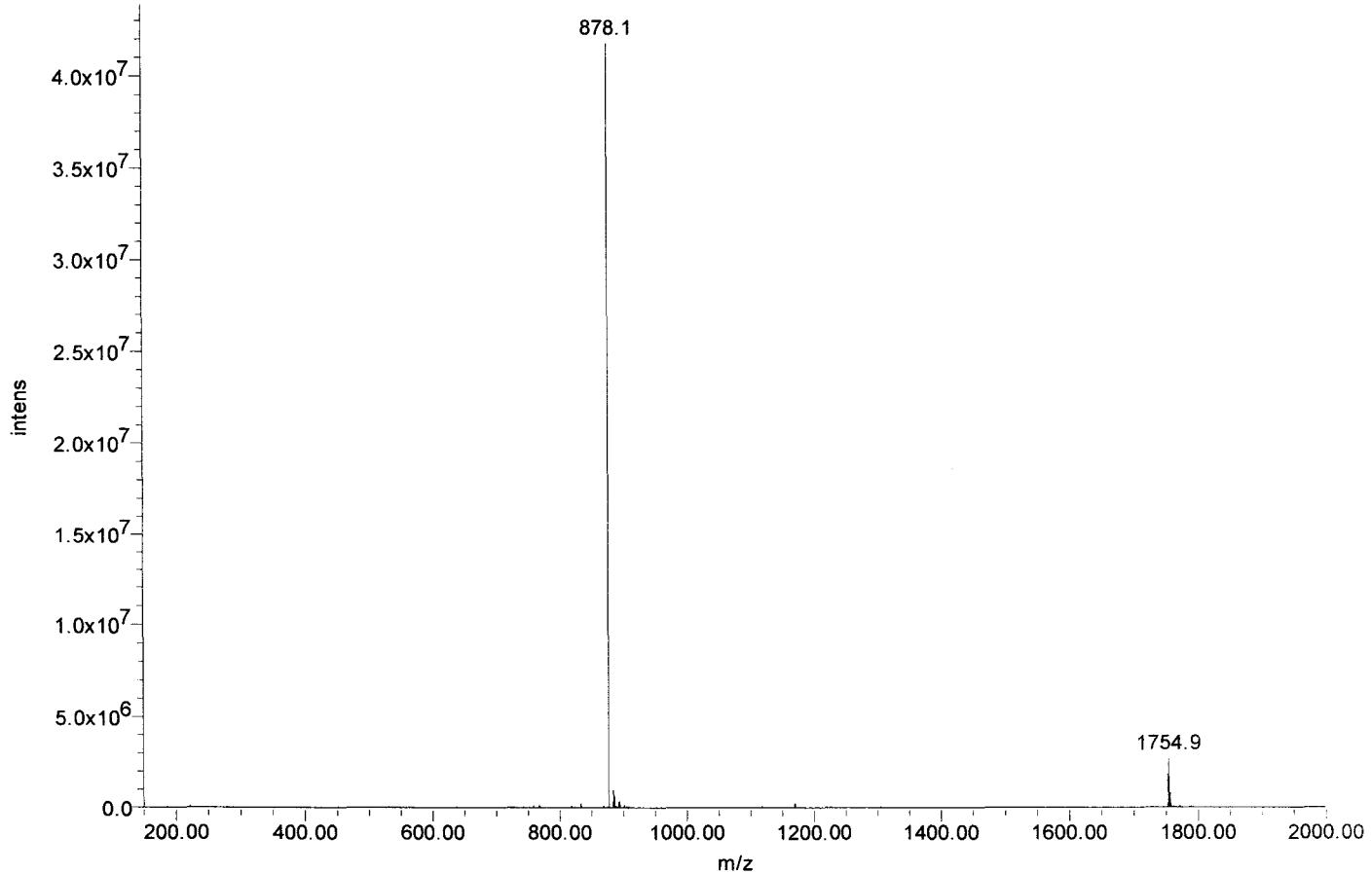
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #125  
LTEEVQWTEMAEAEY  
Cat#5834 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344865                   **Lot #:** SW05244T

**Sequence:** Leu-Thr-Glu-Glu-Val-Gln-Trp-Thr-Glu-Met-Ala-Glu-Ala-Glu-Tyr

**Molecular Weight:** 1829.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 88.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 79.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Met	1.00	1.02		Tyr	1.00	0.99	
Glx	6.00	5.67		Thr	2.00	1.93		Val	1.00	0.96	
Leu	1.00	1.02		Trp	1.00	0.00	*1				

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/05/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

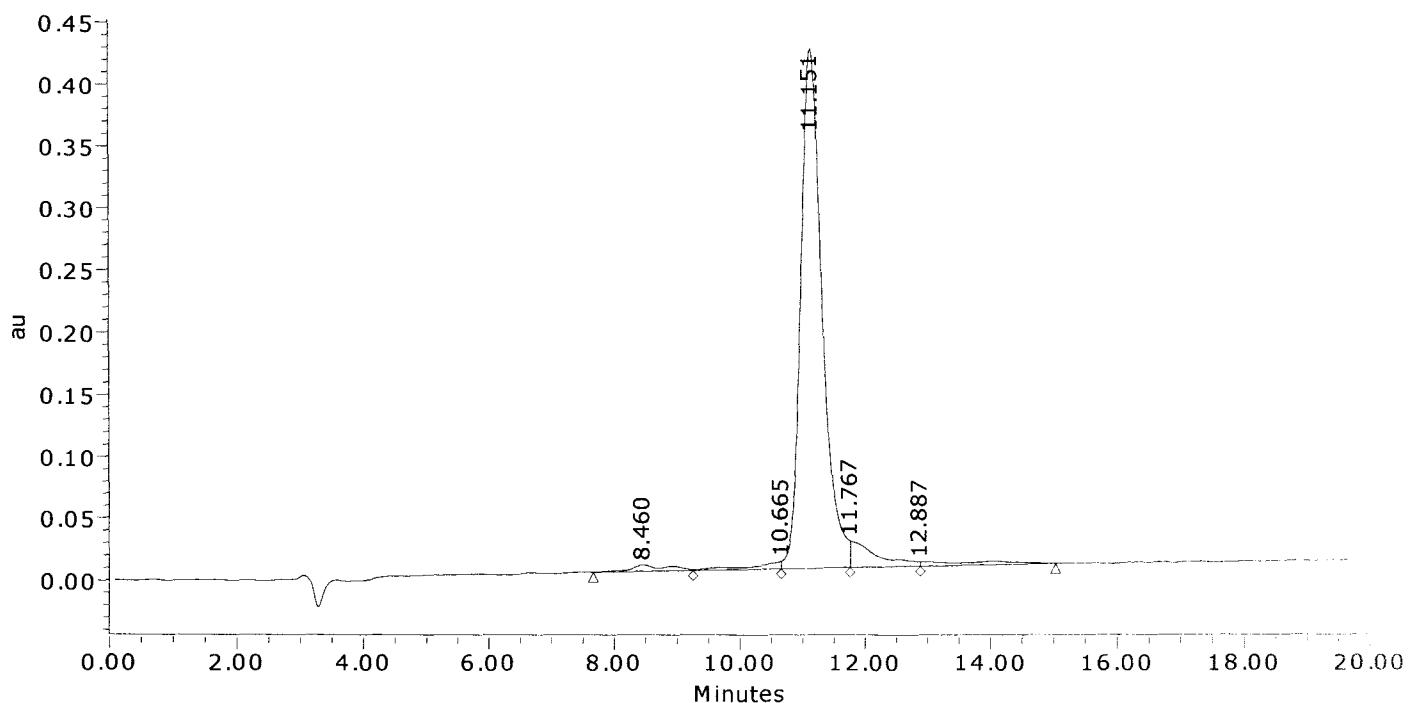
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344865/SW05244T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/4/2008 16:07:33 CST  
Sample ID: 344865 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344865\_A Final\_PDA  
Date Acquired: 6/4/2008 15:31:57 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: PLRP-S, 4.6 x 250 mm, 8 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.9	8.460	212969	4975
2	1.7	10.665	187919	5955
3	88.7	11.151	10001255	419219
4	5.6	11.767	629306	21476
5	2.2	12.887	248731	3279
Sum	100.00		11280179	454904.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344865**

**Lot # : SW05244T**

**Chemist : Yan Li**

Date Acquired :

6/4/2008 16:15:34 CST

Expected MS :

MW: 1829.0

Acq. Method Set :

Import

Processing Method :

344865\_A Final\_MS

Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

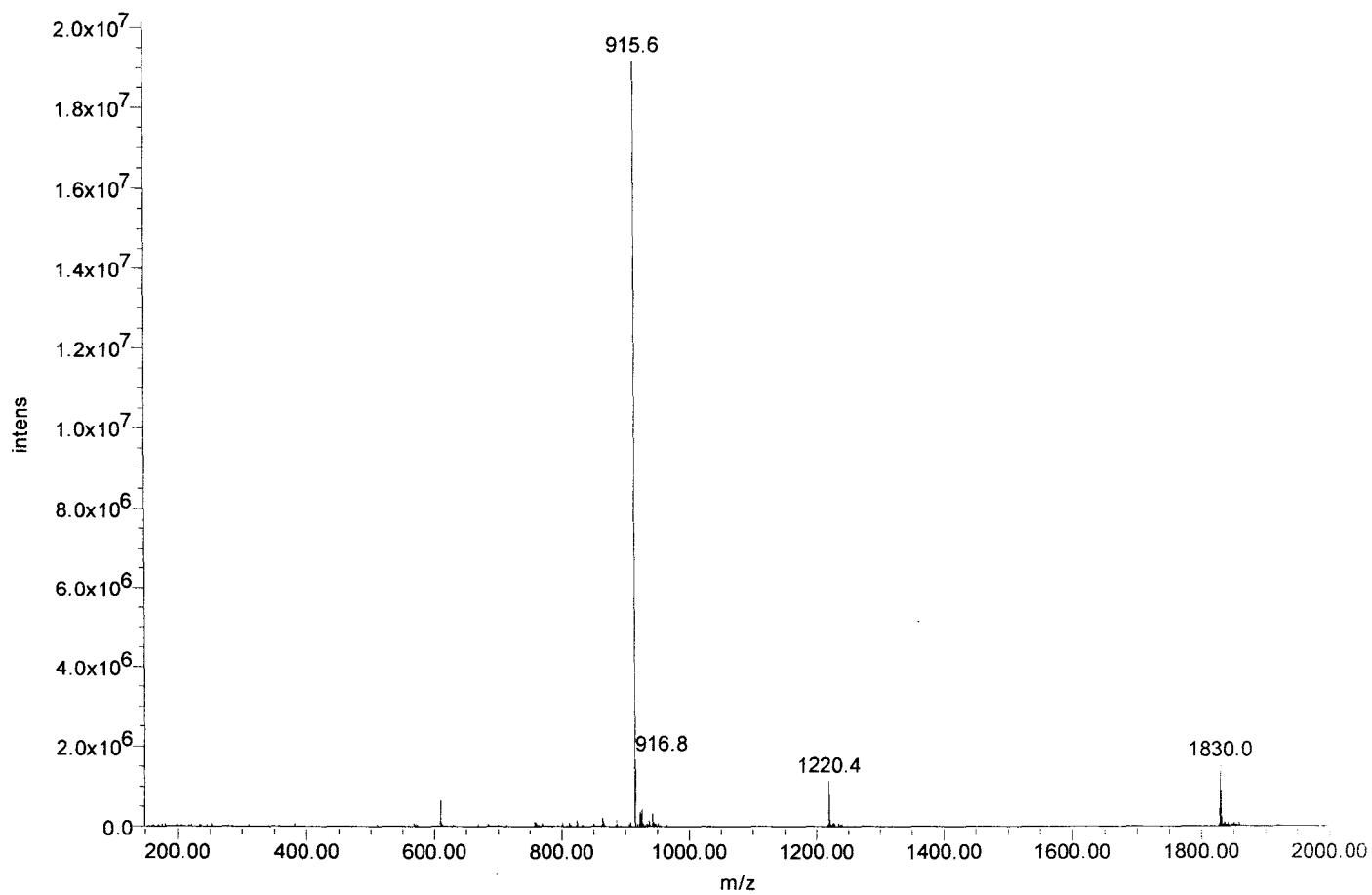
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #126  
VQWTEMAEAEYEENK  
Cat#5835 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344866                           **Lot #:** SW05127T

**Sequence:** Val-Gln-Trp-Thr-Glu-Met-Ala-Glu-Ala-Glu-Tyr-Glu-Glu-Asn-Lys

**Molecular Weight:** 1857.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 77.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.07		Lys	1.00	1.01		Trp	1.00	0.00	*1
Asx	1.00	1.00		Met	1.00	1.05		Tyr	1.00	1.00	
Glx	6.00	5.77		Thr	1.00	1.01		Val	1.00	1.03	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

*Yan Z Li*

Date: 05/22/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
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Tel: 760-597-8820 Fax: 760-597-8816

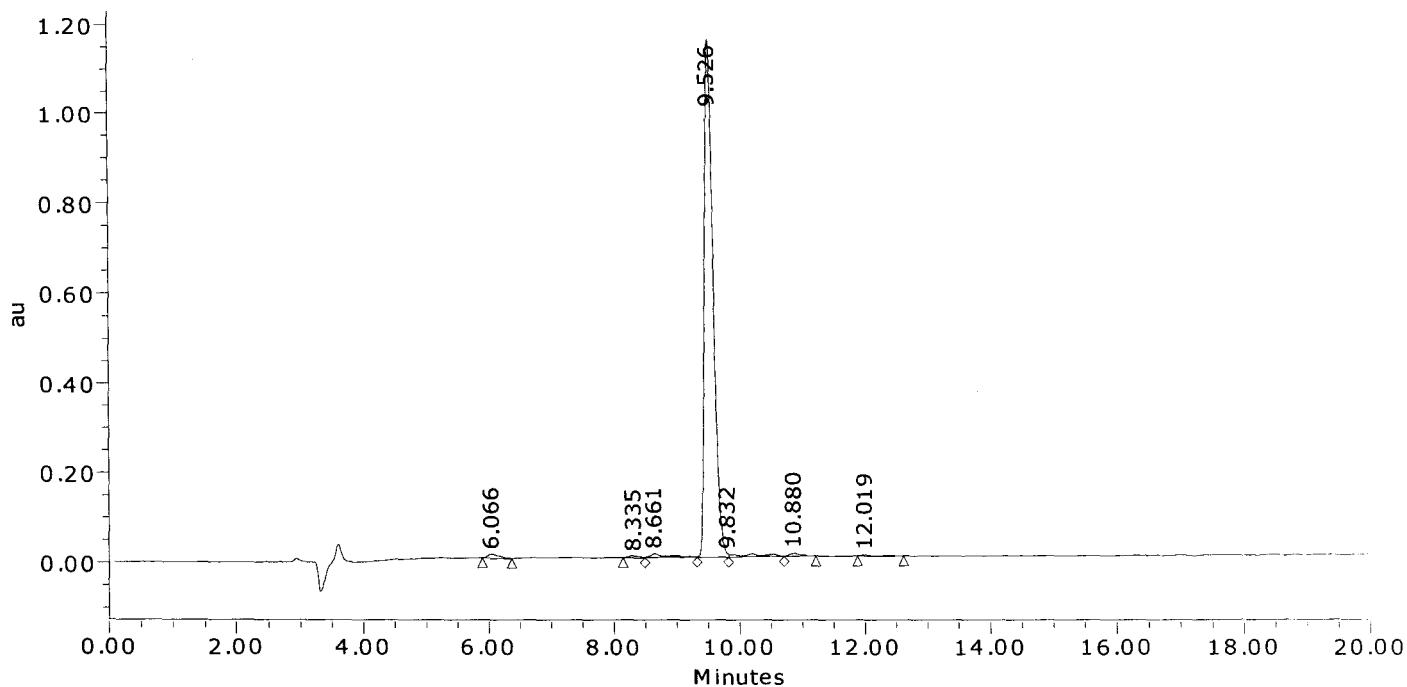
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344866/SW05127T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/21/2008 9:57:45 CST  
Sample ID: 344866 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344866\_A Final\_PDA  
Date Acquired: 5/20/2008 18:23:54 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

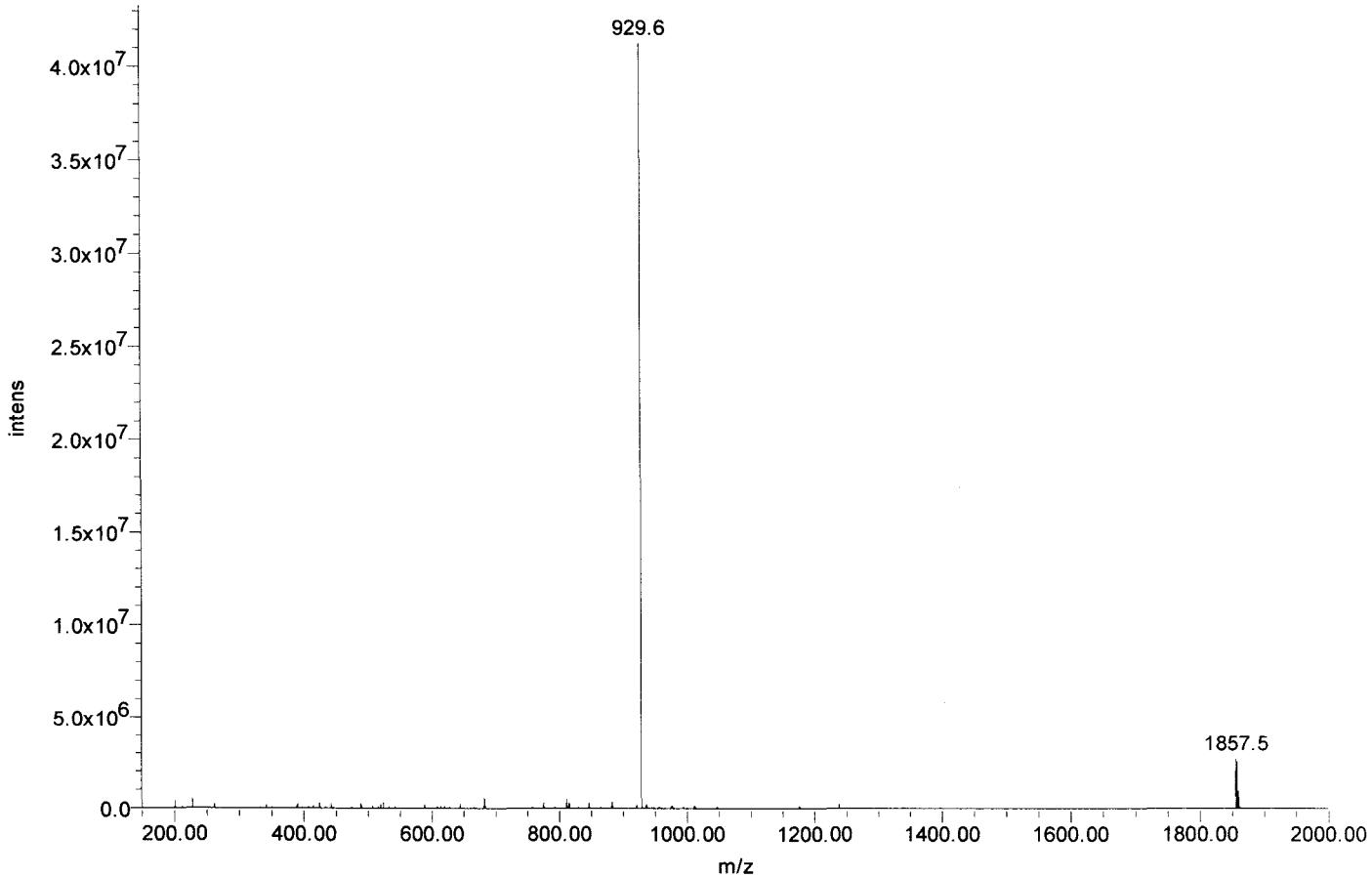


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.9	6.066	108240	9233
2	0.3	8.335	39821	3393
3	1.2	8.661	137183	8108
4	94.6	9.526	11102558	1154975
5	1.7	9.832	195716	6532
6	0.8	10.880	96461	7116
7	0.4	12.019	52196	2971
Sum	100.00		11732174	1192328.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344866      **Lot # :** SW05127T      **Chemist :** Yan Li

Date Acquired : 5/20/2008 18:23:54 CST  
Expected MS : MW: 1857.0  
Acq. Method Set : Import  
Processing Method : 344866\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #127  
EMAEAEYEENKILS  
Cat#5836 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344867                   **Lot #:** SW05140T  
**Sequence:** Glu-Met-Ala-Glu-Ala-Glu-Tyr-Glu-Glu-Asn-Lys-Ile-Ile-Leu-Ser  
**Molecular Weight:** 1769.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 86.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 78.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.12		Ile	2.00	1.39	*1	Met	1.00	1.03	
Asx	1.00	1.07		Leu	1.00	1.05		Ser	1.00	0.83	
Glx	5.00	5.00		Lys	1.00	1.05		Tyr	1.00	1.02	

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 05/25/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

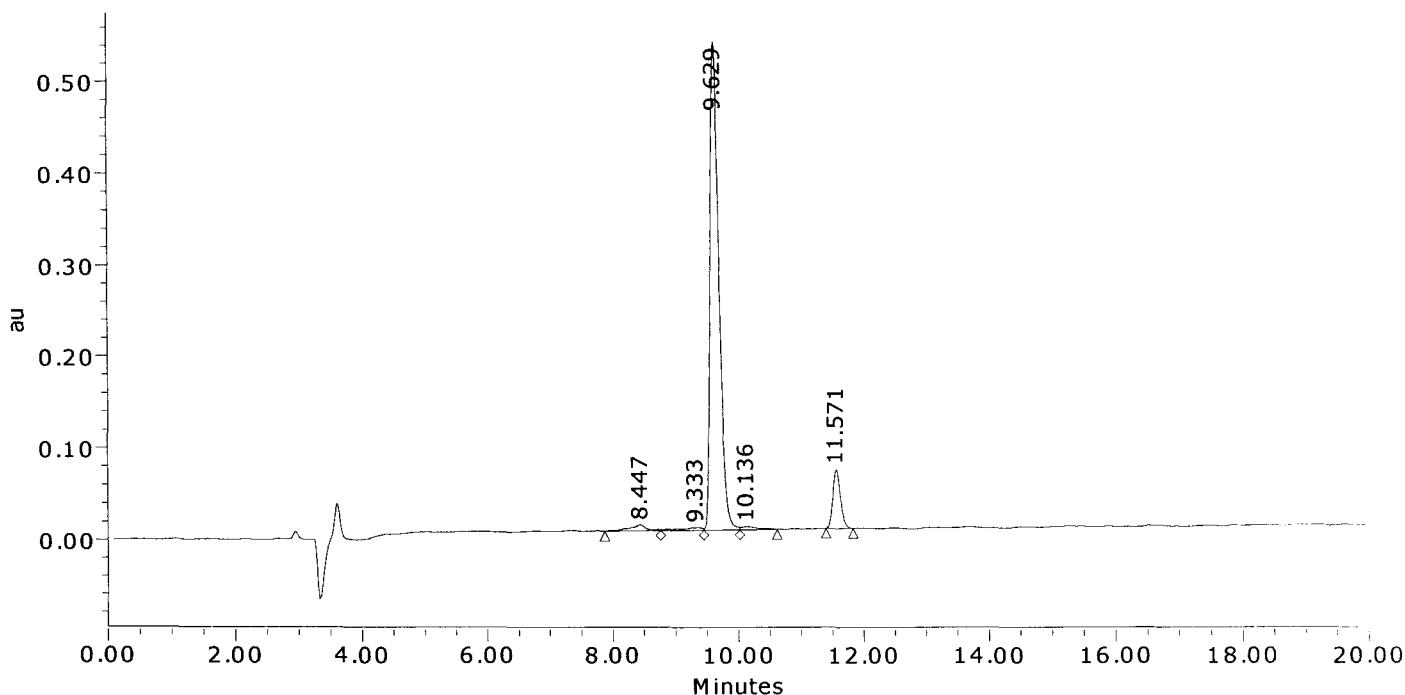
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344867/SW05140T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 11:28:43 CST  
Sample ID: 344867 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344867\_A Final\_PDA  
Date Acquired: 5/21/2008 20:16:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.1	8.447	124054	6541
2	1.4	9.333	83567	3261
3	86.4	9.629	5194960	532981
4	1.1	10.136	66966	3737
5	9.0	11.571	540084	63862
Sum	100.00		6009631	610381.9

**American Peptide Company, Inc.**  
**MS Analysis Report**

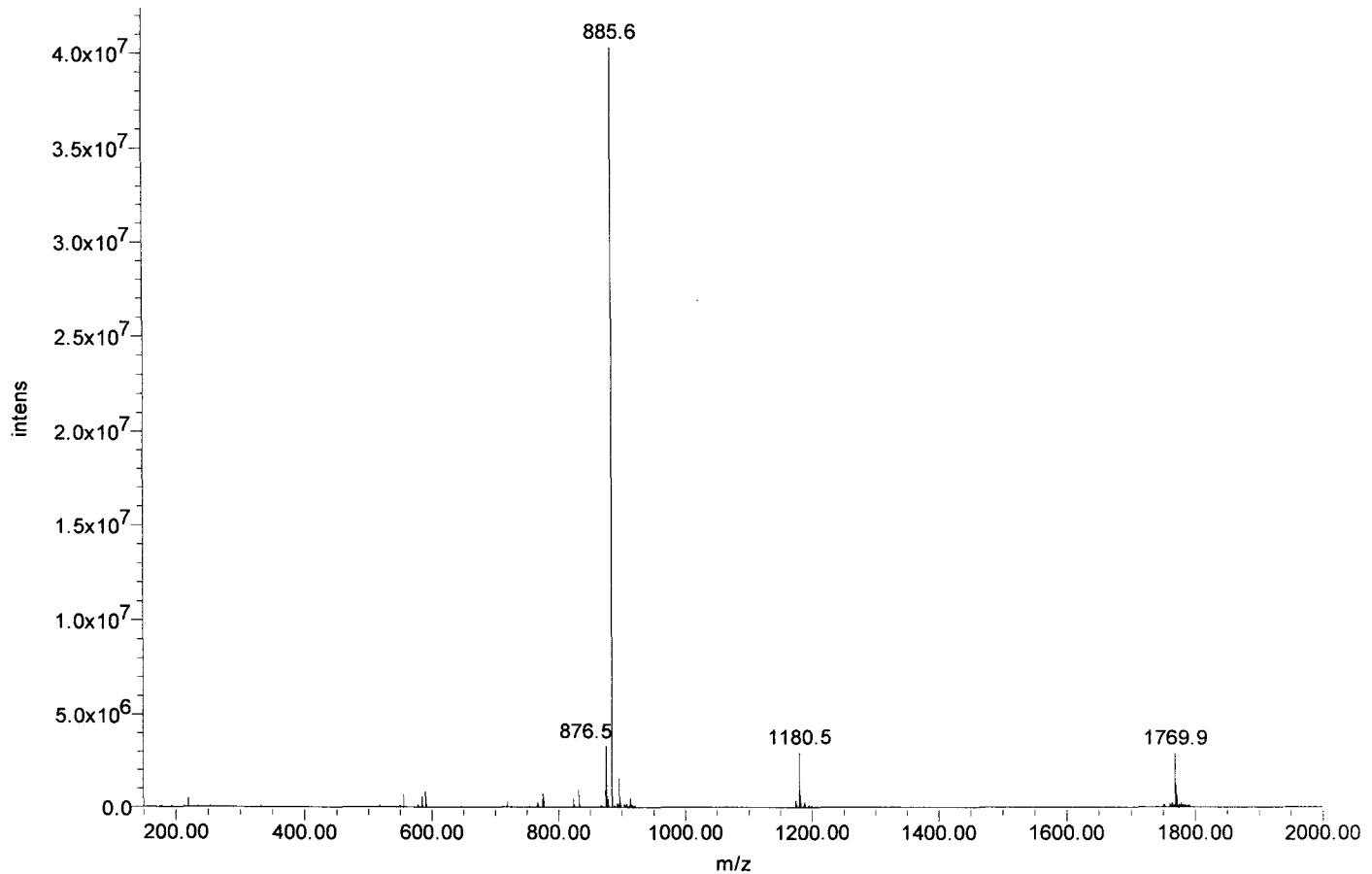
**Sample ID:**

**344867**

**Lot # : SW05140T**

**Chemist : Yan Li**

Date Acquired : 5/22/2008 12:37:43 CST  
Expected MS : MW: 1769.0  
Acq. Method Set : Import  
Processing Method : 344867\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #128  
AFYEENKILSQEQE  
Cat#5837 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344868                   **Lot #:** SW05111T

**Sequence:** Ala-Glu-Tyr-Glu-Glu-Asn-Lys-Ile-Ile-Leu-Ser-Gln-Glu-Gln-Glu

**Molecular Weight:** 1823.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 78.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/19/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Ile	2.00	1.41	*1	Ser	1.00	0.80	
Asx	1.00	1.05		Leu	1.00	1.03		Tyr	1.00	0.98	
Glx	7.00	6.62		Lys	1.00	1.03					

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/21/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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1271 Avenida Chelsea  
Vista, CA 92081 USA

Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka

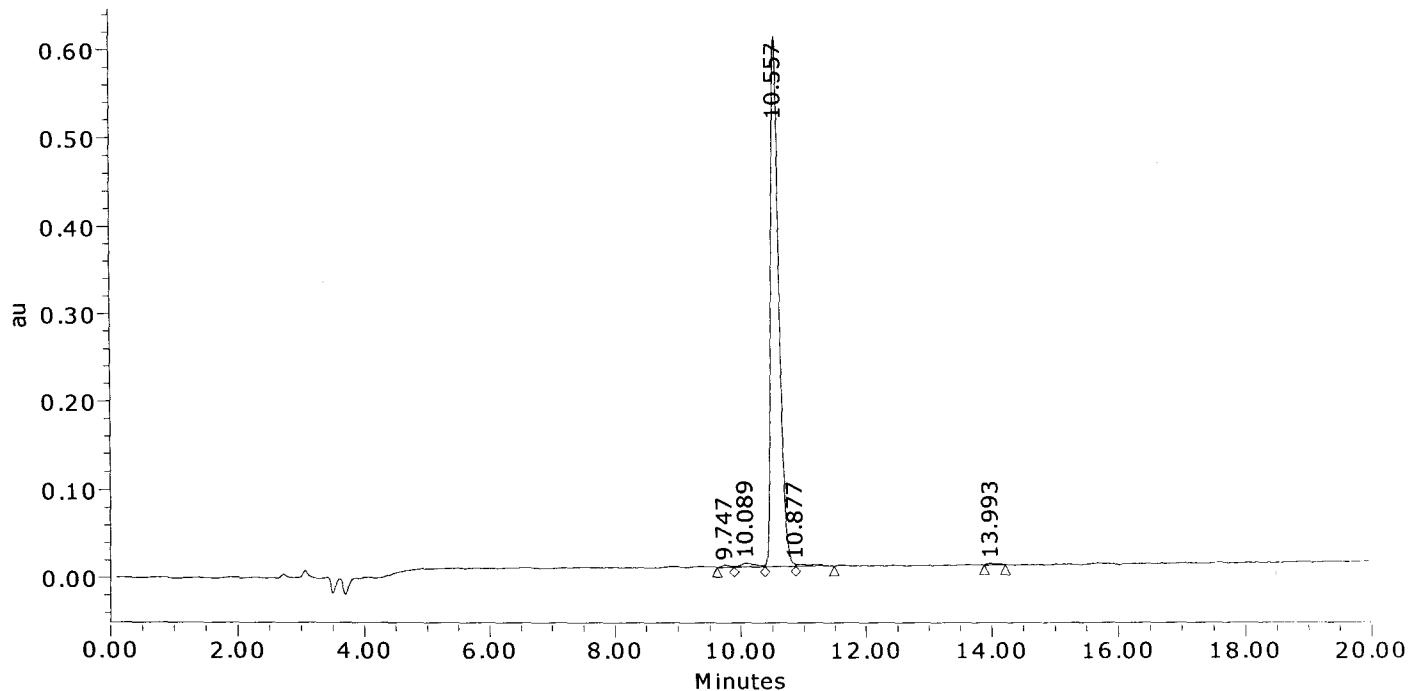
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344868/SW05111T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 10:27:18 CST  
Sample ID: 344868 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344868\_A\_Final\_PDA  
Date Acquired: 5/19/2008 20:57:29 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10 uL.  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.4	9.747	22348	2634
2	1.2	10.089	69692	4158
3	97.2	10.557	5479379	601832
4	0.9	10.877	50601	2741
5	0.3	13.993	14866	1532
<b>Sum</b>	<b>100.00</b>		<b>5636887</b>	<b>612896.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344868

Lot # : SW05111T

Chemist : Yan Li

Date Acquired :

5/19/2008 20:57:29 CST

Expected MS :

MW: 1823.0

Acq. Method Set :

Import

Processing Method :

344868\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

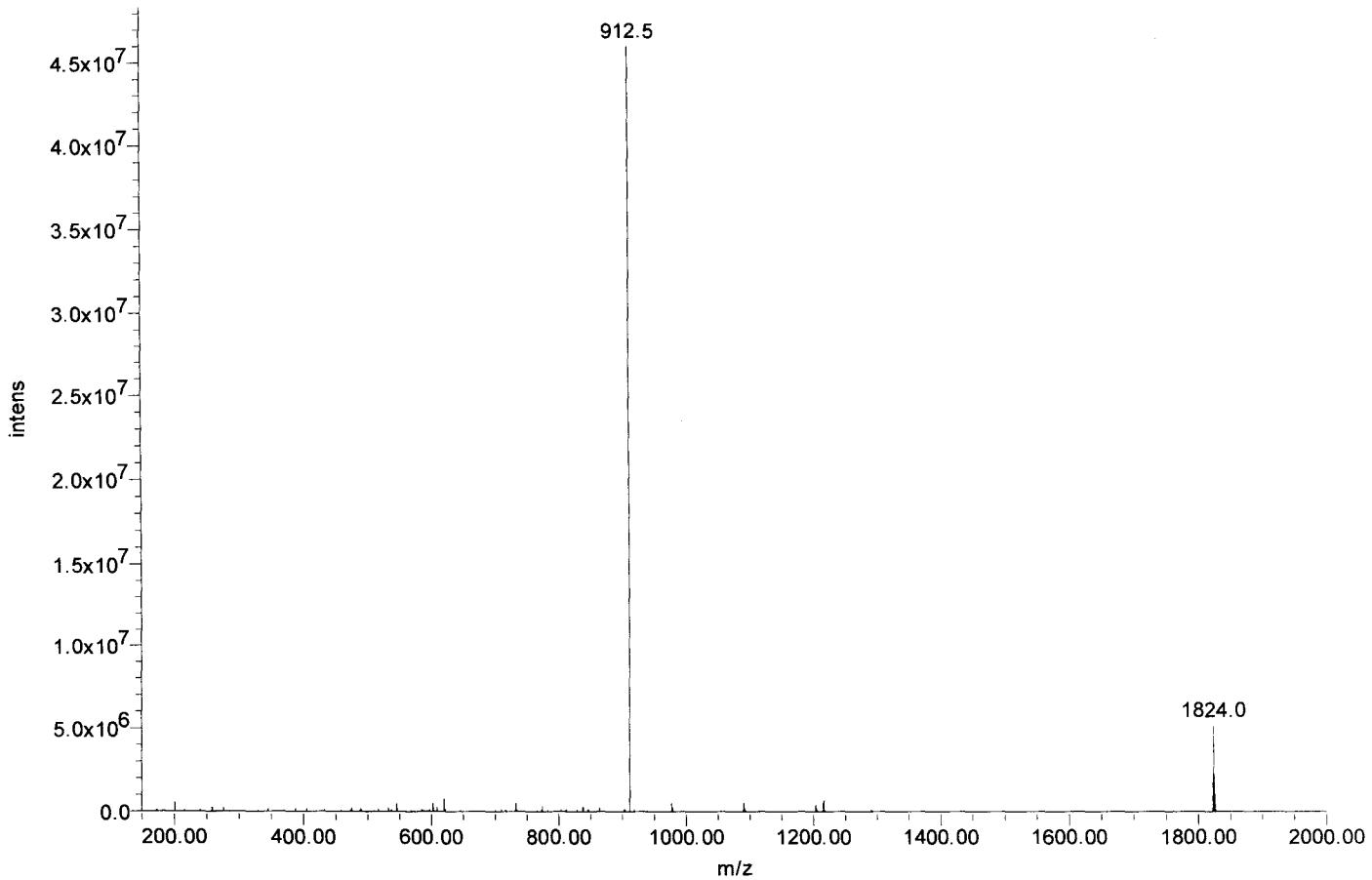
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #129  
ENKILSSEQEGCYY  
Cat#5838 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344869                   **Lot #:** SW05152T  
**Sequence:** Glu-Asn-Lys-Ile-Ile-Leu-Ser-Gln-Glu-Gln-Gly-Cys-Tyr-Tyr  
**Molecular Weight:** 1817.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 86.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/22/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.07		Gly	1.00	1.10		Lys	1.00	1.07	
Cys	1.00	0.00	*1	Ile	2.00	1.45	*2	Ser	1.00	0.81	
Glx	5.00	5.00		Leu	1.00	1.07		Tyr	2.00	2.08	

\*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li  
Quality Control Department

Date: 05/26/08

Headquarters  
777 E. Evelyn Avenue  
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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

AMERICAN PEPTIDE COMPANY, INC.

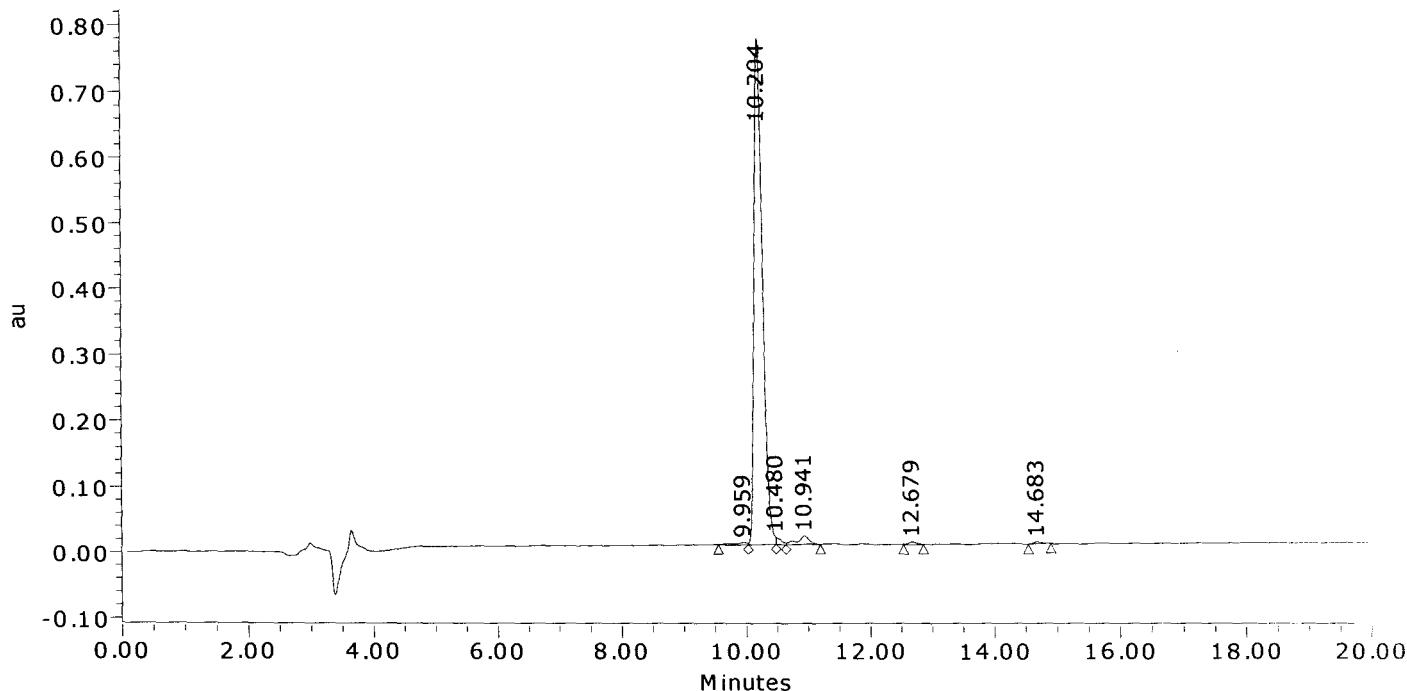
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344869/SW05152T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 9:48:12 CST  
Sample ID: 344869 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344869\_A Final\_PDA  
Date Acquired: 5/22/2008 19:40:15 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18%-38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.7	9.959	55088	3535
2	95.4	10.204	7281124	767870
3	0.8	10.480	63912	11298
4	2.2	10.941	169607	12871
5	0.4	12.679	32623	3847
6	0.4	14.683	28345	3182
<b>Sum</b>	<b>100.00</b>		<b>7630699</b>	<b>802601.5</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344869

Lot # : SW05152T

Chemist : Yan Li

Date Acquired :

5/22/2008 19:40:15 CST

Expected MS :

MW: 1817.0

Acq. Method Set :

Import

Processing Method :

344869\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

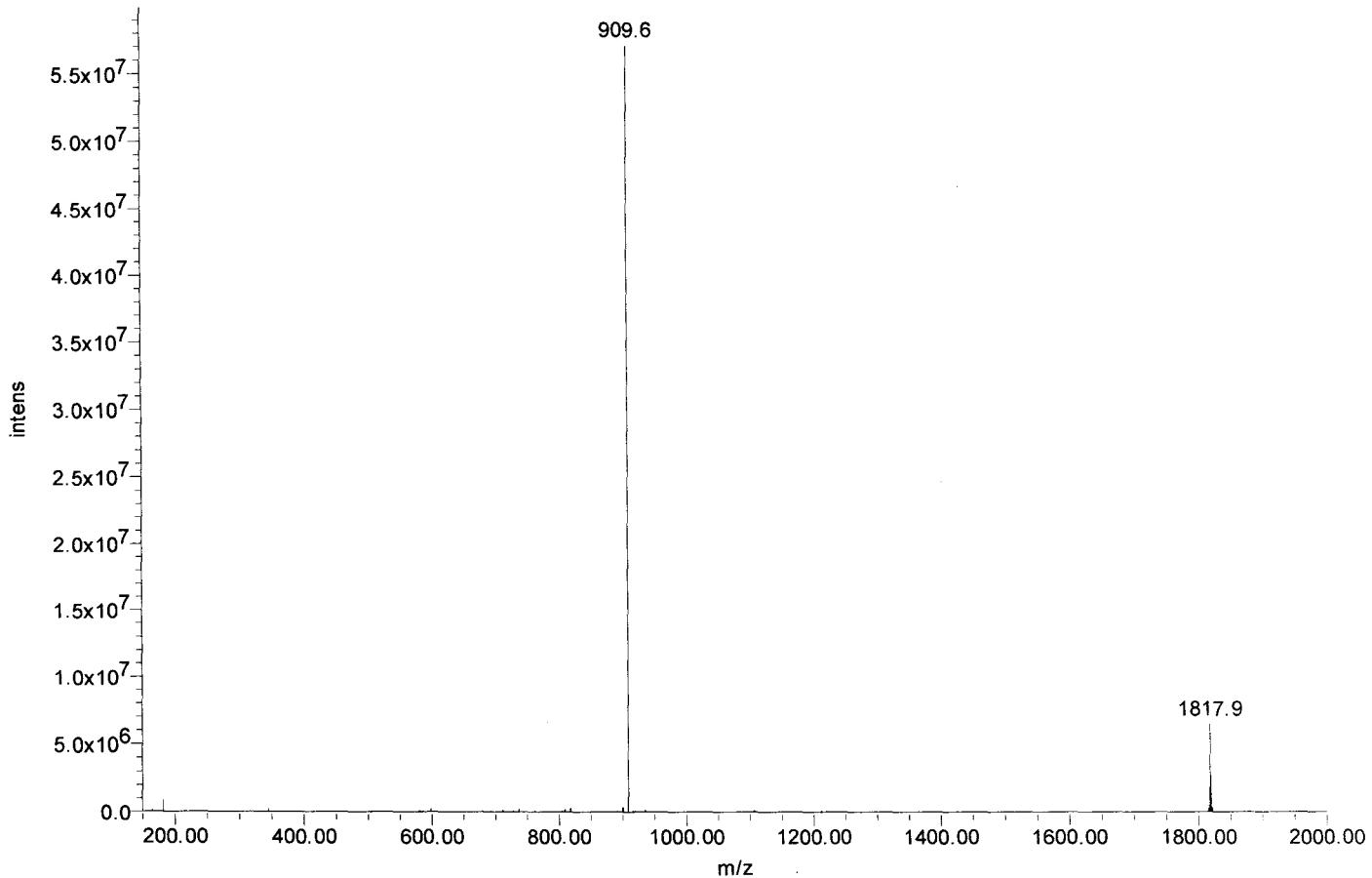
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #130  
ILSQEQEGCYYQEGK  
Cat#5839 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344870                   **Lot #:** SW05200T  
**Sequence:** Ile-Leu-Ser-Gln-Glu-Gln-Gly-Cys-Tyr-Tyr-Gln-Glu-Gly-Lys  
**Molecular Weight:** 1774.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 91.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Cys	1.00	0.00	*1	Ile	1.00	0.94		Ser	1.00	0.84	
Glx	6.00	6.56		Leu	1.00	0.98		Tyr	2.00	1.91	
Gly	2.00	2.00		Lys	1.00	0.99					

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li  
Quality Control Department

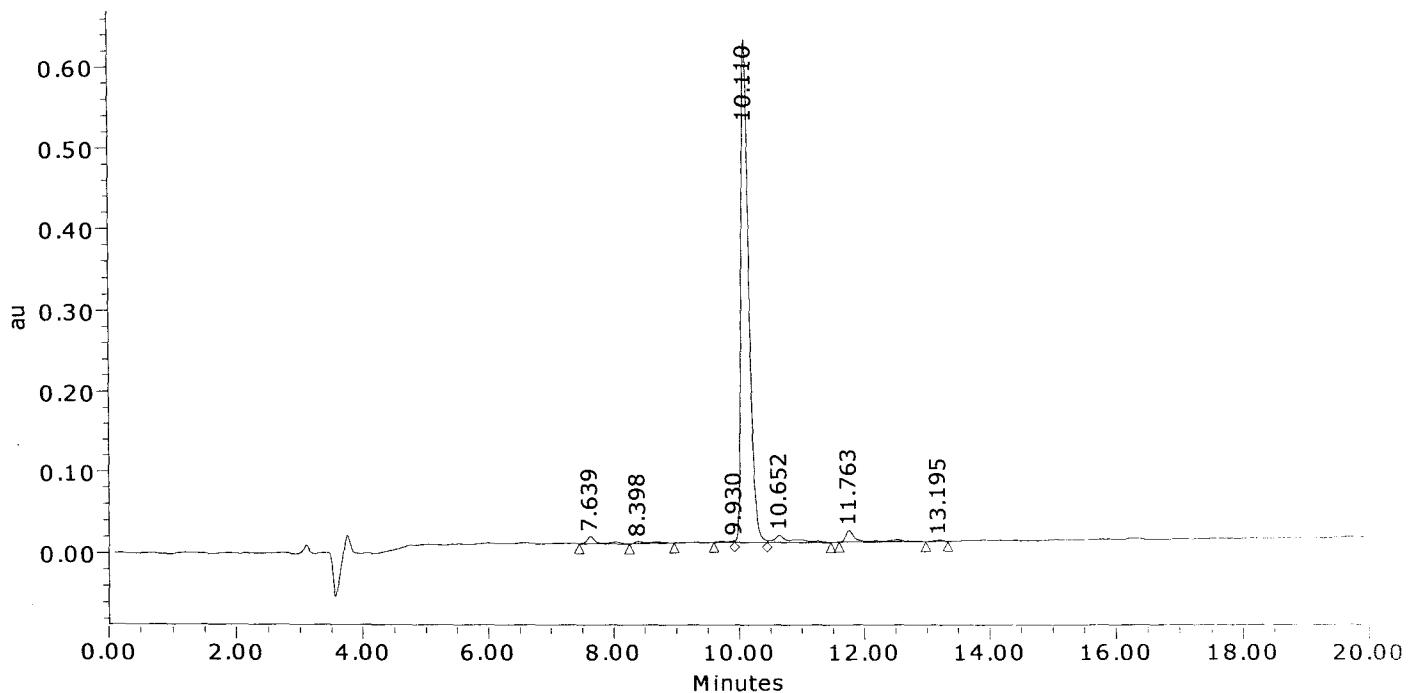
Date: 05/28/08

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344870/SW05200T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 12:36:35 CST  
Sample ID: 344870 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344870\_A Final\_PDA  
Date Acquired: 5/26/2008 22:01:13 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 13% -33% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.5	7.639	91094	8531
2	0.8	8.398	48090	2474
3	0.2	9.930	13516	1586
4	91.5	10.110	5438596	621947
5	2.6	10.652	151941	8101
6	3.2	11.763	189547	13897
7	0.2	13.195	14114	1577
<b>Sum</b>	<b>100.00</b>		<b>5946897</b>	<b>658113.1</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344870**

**Lot # : SW05200T**

**Chemist : Yan Li**

Date Acquired :

5/26/2008 22:01:13 CST

Expected MS :

MW: 1774.9

Acq. Method Set :

Import

Processing Method :

344870\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

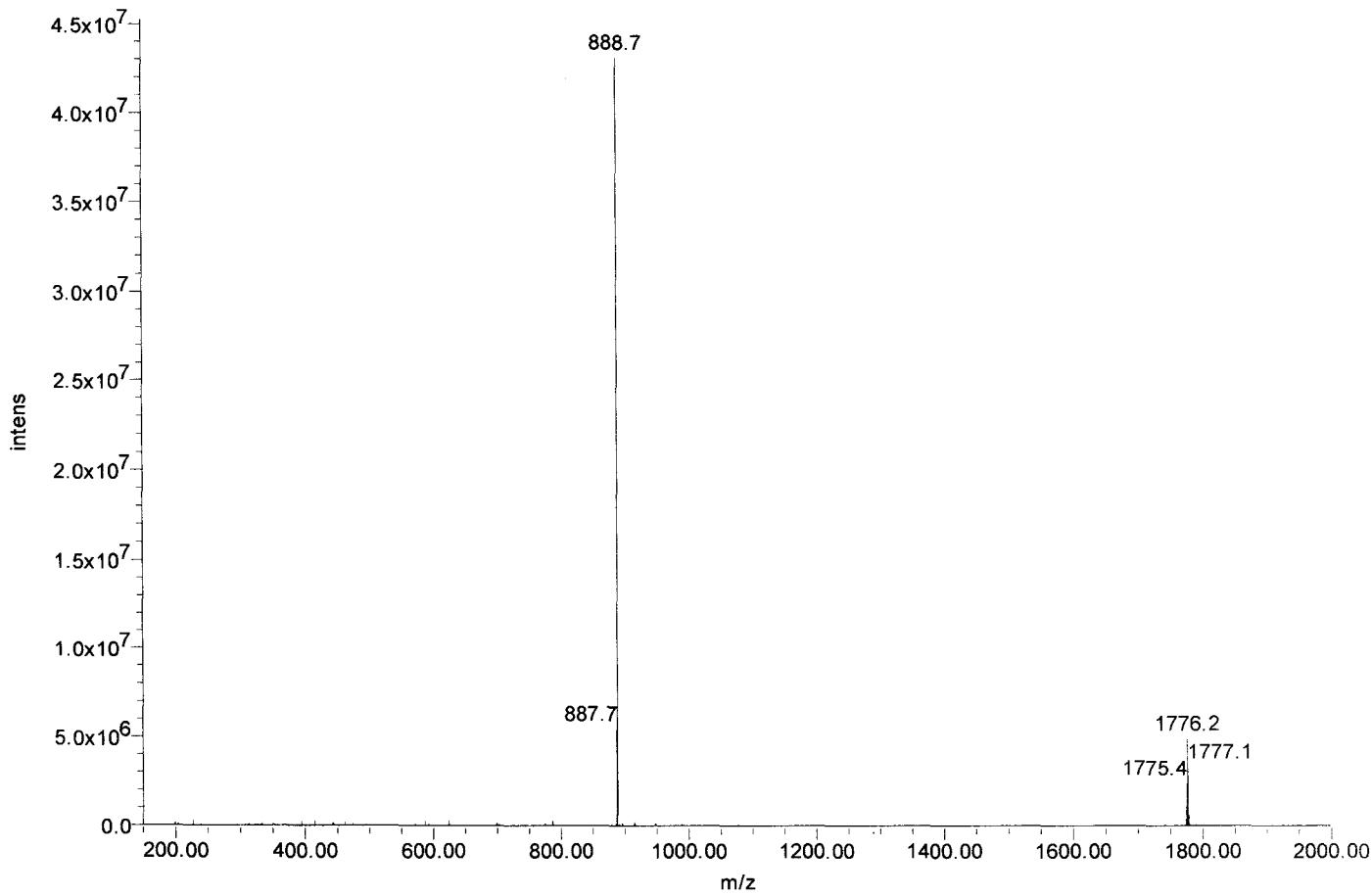
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #131  
EQEGCYYQEGKPLFA  
Cat#5840 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344871                   **Lot #:** SW05235T  
**Sequence:** Glu-Gln-Glu-Gly-Cys-Tyr-Tyr-Gln-Glu-Gly-Lys-Pro-Leu-Glu-Ala  
**Molecular Weight:** 1743.9 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.08		Gly	2.00	2.15		Pro	1.00	0.86	
Cys	1.00	0.00	*1	Leu	1.00	1.09		Tyr	2.00	2.08	
Glx	6.00	6.00		Lys	1.00	1.09					

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li

Date: 06/02/08

Quality Control Department

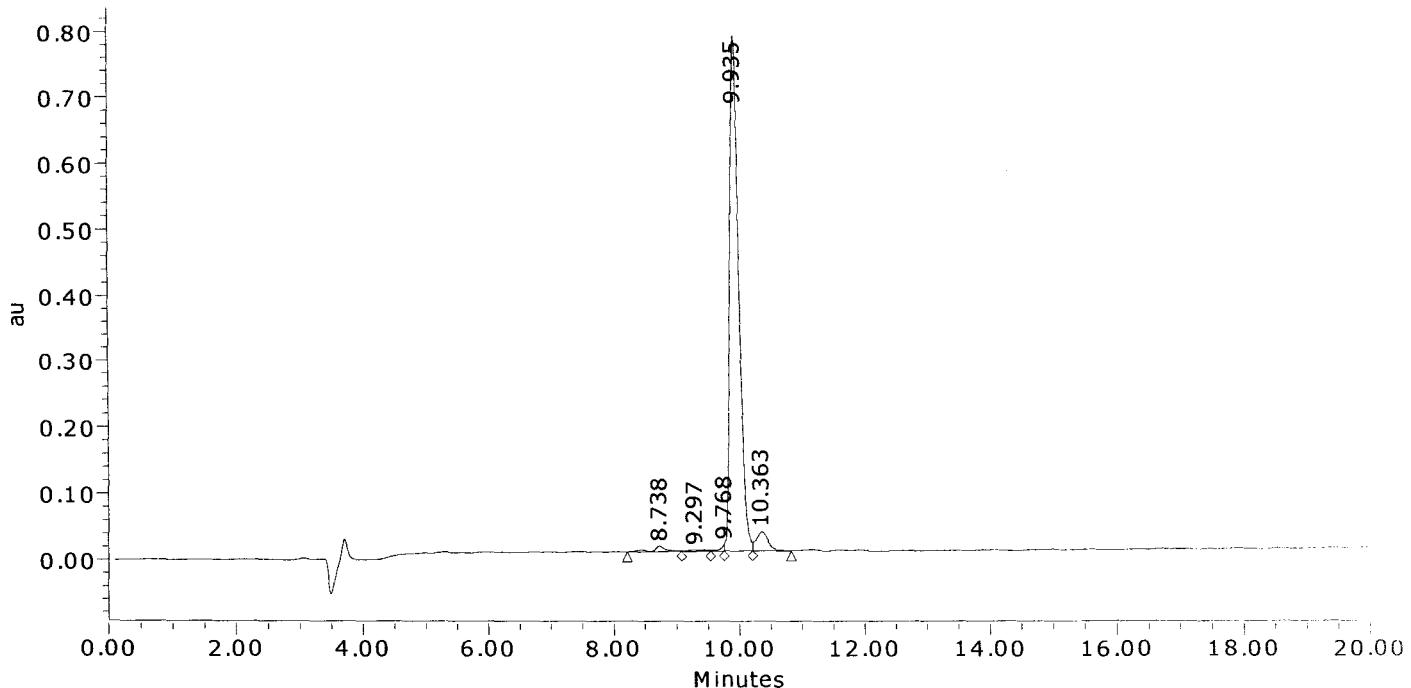
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344871/SW05235T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 11:20:36 CST  
Sample ID: 344871 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344871\_A Final\_PDA  
Date Acquired: 5/28/2008 19:33:59 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.5	8.738	126031	8675
2	0.6	9.297	51405	2686
3	0.4	9.768	36418	10143
4	92.9	9.935	7732150	780257
5	4.5	10.363	376345	28527
Sum	100.00		8322349	830286.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

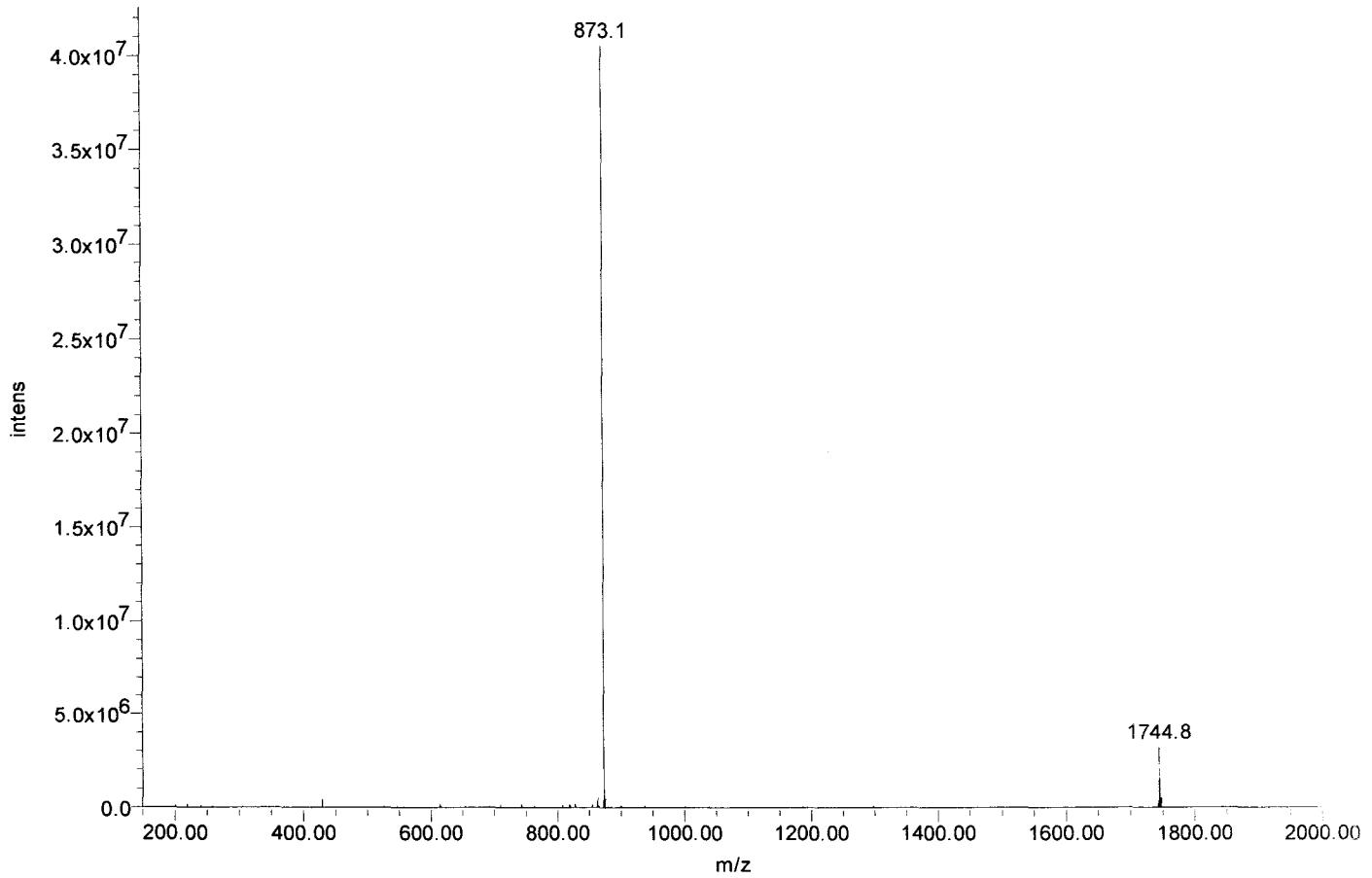
**Sample ID:**

**344871**

**Lot # : SW05235T**

**Chemist : Yan Li**

Date Acquired : 5/28/2008 19:33:59 CST  
Expected MS : MW: 1743.9  
Acq. Method Set : Import  
Processing Method : 344871\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #132  
CYYQEKGKPLEATVIK  
Cat#5841 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344872                   **Lot #:** SW05221T  
**Sequence:** Cys-Tyr-Tyr-Gln-Glu-Gly-Lys-Pro-Leu-Glu-Ala-Thr-Val-Ile-Lys  
**Molecular Weight:** 1742.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.09		Ile	1.00	0.87		Thr	1.00	1.03	
Cys	1.00	0.00	*1	Leu	1.00	1.06		Tyr	2.00	2.01	
Glx	3.00	3.00		Lys	2.00	2.15		Val	1.00	0.92	
Gly	1.00	1.06		Pro	1.00	0.90					

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/30/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Tel: 760-597-8820 Fax: 760-597-8816

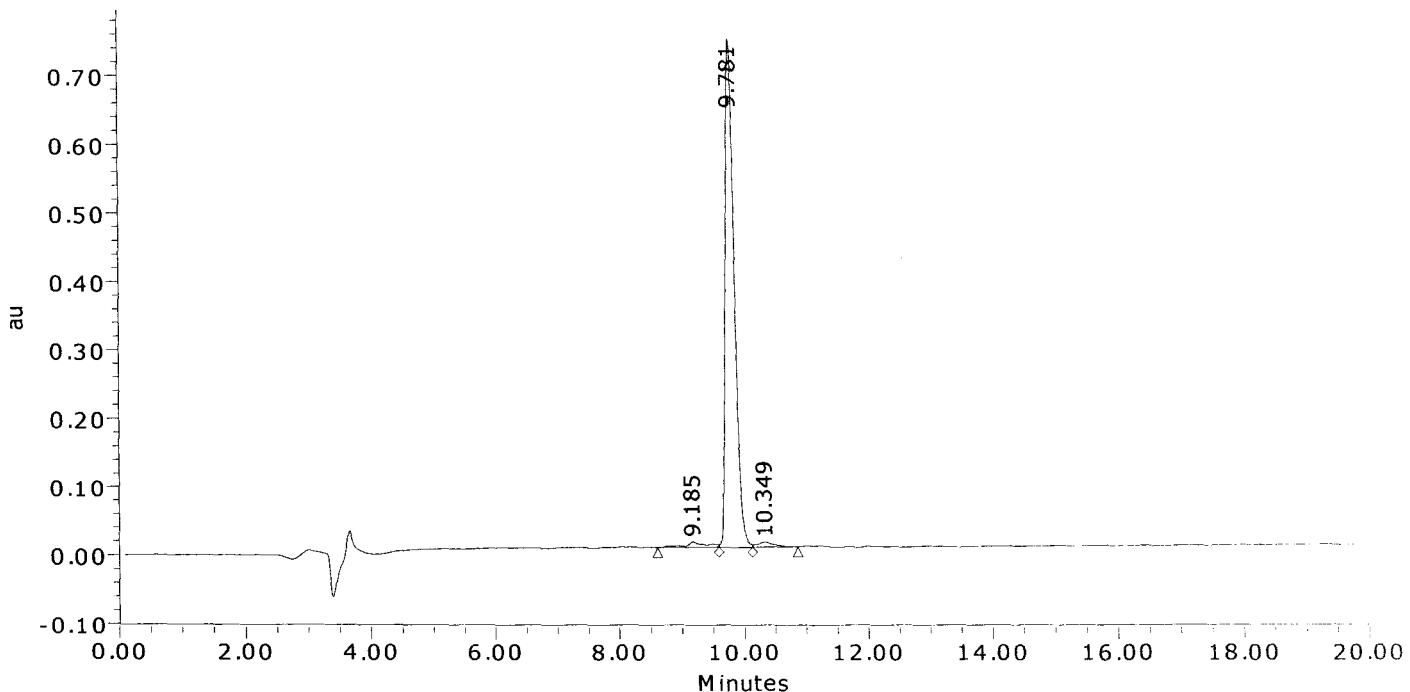
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344872/SW05221T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 10:13:46 CST  
Sample ID: 344872 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344872\_A Final\_PDA  
Date Acquired: 5/27/2008 19:05:39 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	2.4	9.185	182552	8148
2	95.9	9.781	7431030	741754
3	1.7	10.349	132831	7152
<b>Sum</b>	<b>100.00</b>		<b>7746413</b>	<b>757054.4</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

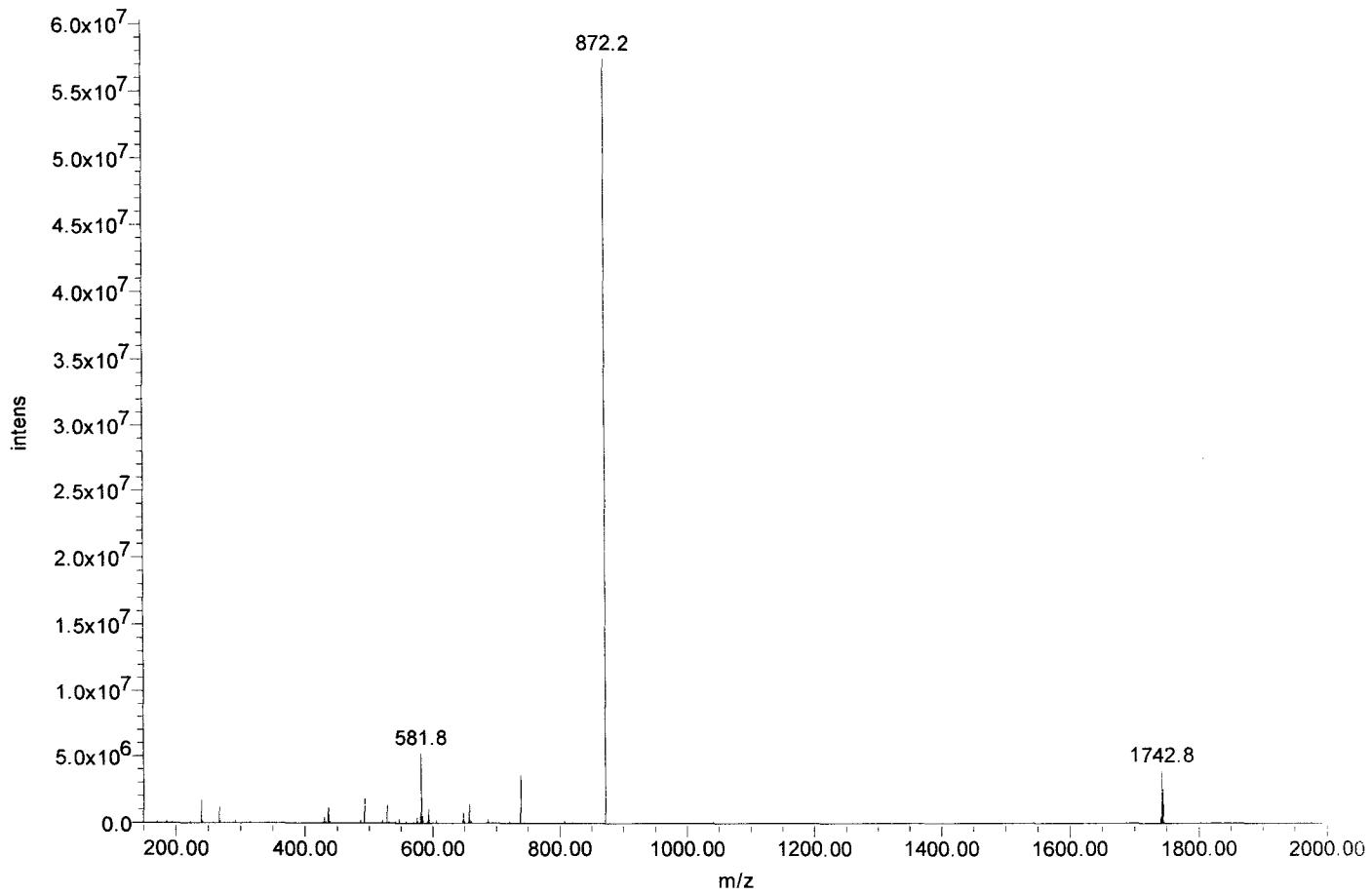
**Sample ID:**

**344872**

**Lot # : SW05221T**

**Chemist : Yan Li**

Date Acquired : 5/27/2008 19:05:39 CST  
Expected MS : MW: 1742.0  
Acq. Method Set : Import  
Processing Method : 344872\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #133  
EGKPLEATVIKSQDN  
Cat#5842 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344873                   **Lot #:** SW05217T  
**Sequence:** Glu-Gly-Lys-Pro-Leu-Glu-Ala-Thr-Val-Ile-Lys-Ser-Gln-Asp-Asn  
**Molecular Weight:** 1628.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		Ile	1.00	0.82		Ser	1.00	0.91	
Asx	2.00	1.95		Leu	1.00	1.04		Thr	1.00	1.02	
Glx	3.00	3.39		Lys	2.00	1.99		Val	1.00	0.87	
Gly	1.00	1.00		Pro	1.00	0.87					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/30/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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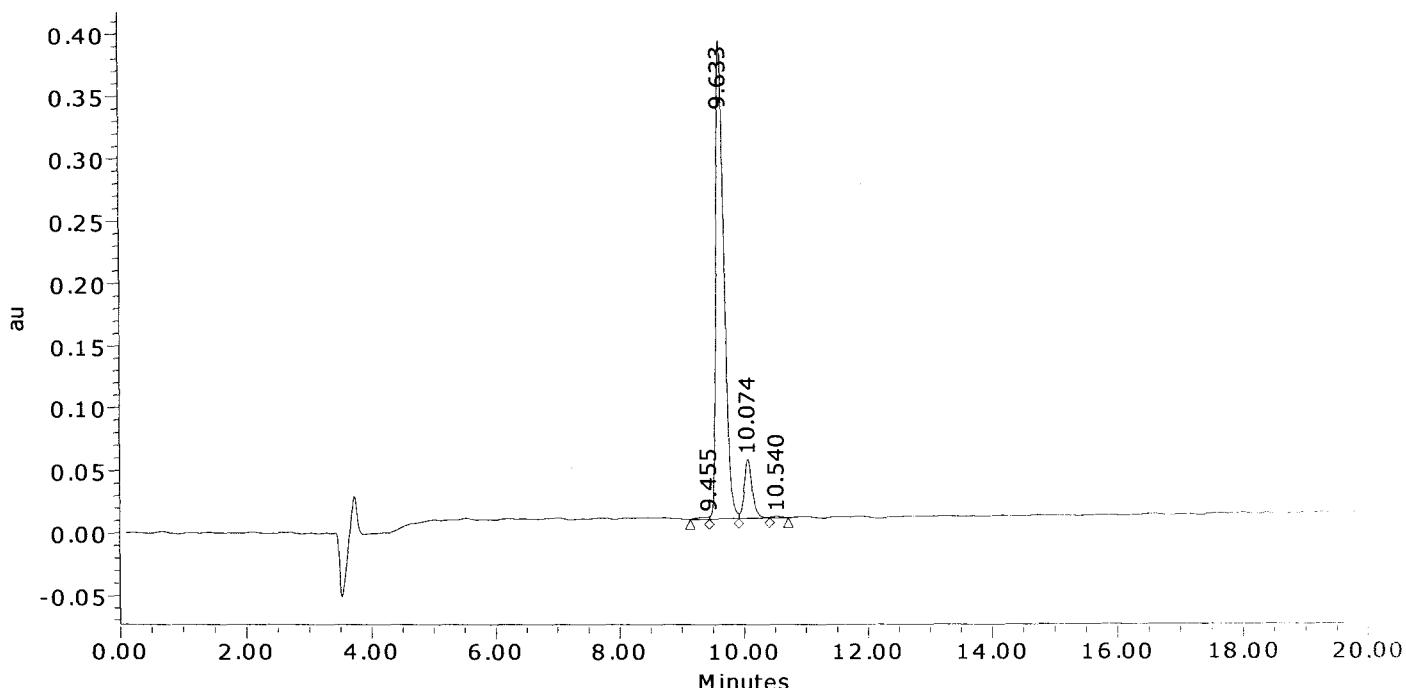
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344873/SW05217T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 11:35:10 CST  
Sample ID: 344873 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344873\_A\_Final\_PDA  
Date Acquired: 5/27/2008 20:23:28 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	9.455	23580	2267
2	88.2	9.633	3481122	383806
3	10.9	10.074	429266	47339
4	0.3	10.540	11505	1174
Sum	100.00		3945473	434586.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344873**

**Lot # : SW05217T**

**Chemist : Yan Li**

Date Acquired :

5/27/2008 20:23:28 CST

Expected MS :

MW: 1628.8

Acq. Method Set :

Import

Processing Method :

344873\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

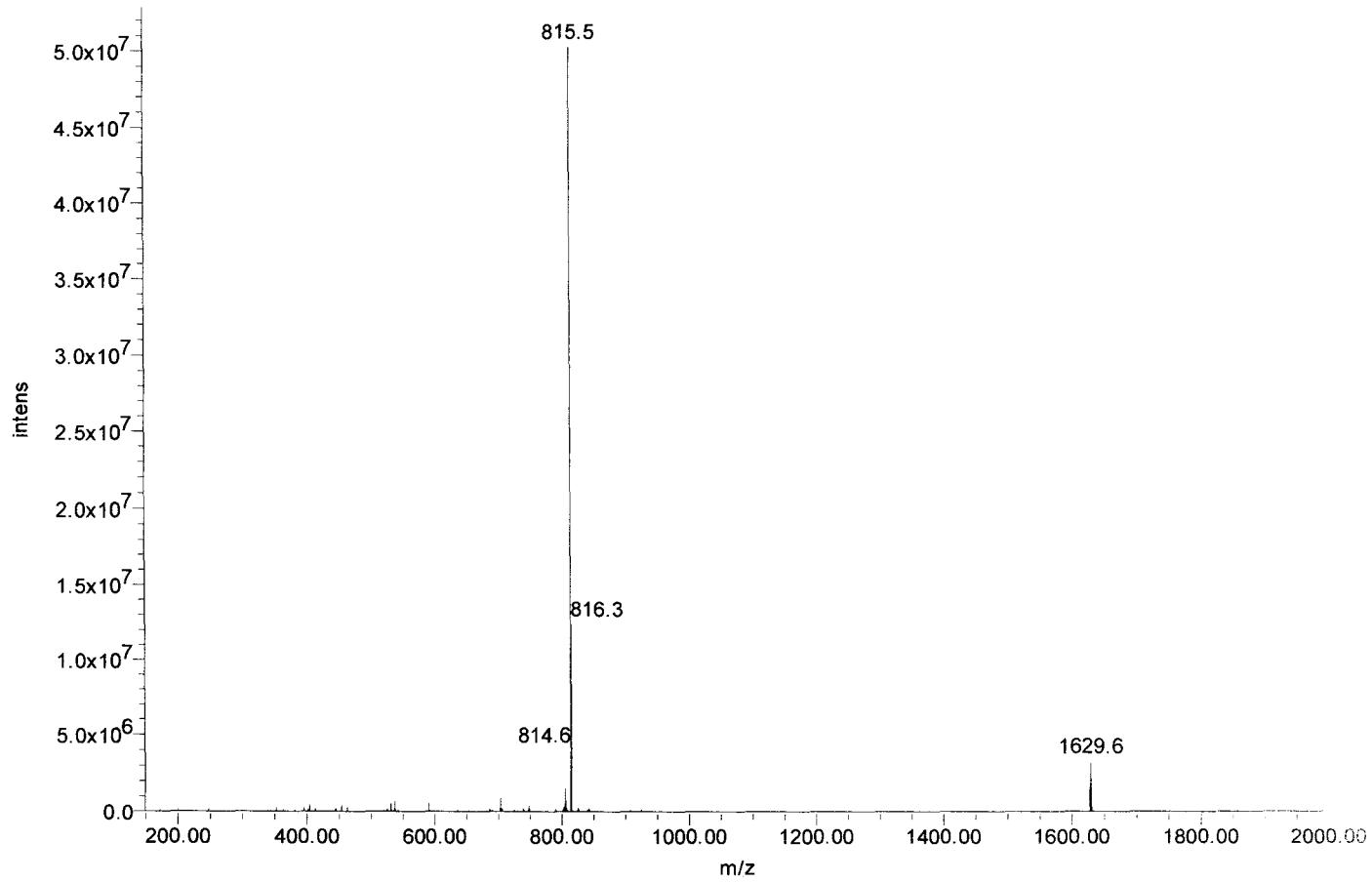
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #134  
LEATVIKSQDNQWSY  
Cat#5843 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344874                   **Lot #:** SW05243T  
**Sequence:** Leu-Glu-Ala-Thr-Val-Ile-Lys-Ser-Gln-Asp-Asn-Gln-Trp-Ser-Tyr  
**Molecular Weight:** 1782.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** Off White lyophilized powder  
**Peptide Content:** 84.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Leu	1.00	1.02	Trp	1.00	0.00 *1
Asx	2.00	2.03		Lys	1.00	1.01	Tyr	1.00	0.99
Glx	3.00	2.89		Ser	2.00	1.68	Val	1.00	0.90
Ile	1.00	0.83		Thr	1.00	0.98			

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/02/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

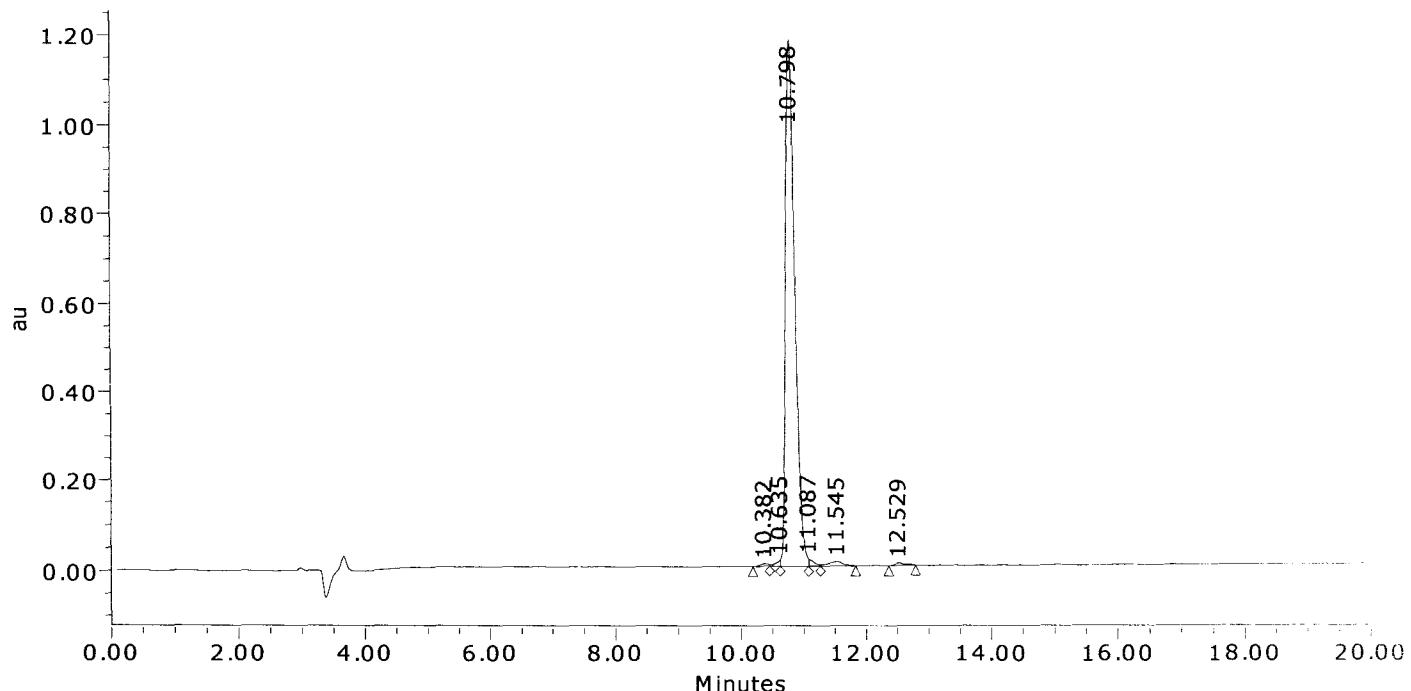
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344874/SW05243T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 15:14:09 CST  
Sample ID: 344874 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344874\_A\_Final\_PDA  
Date Acquired: 5/29/2008 10:51:08 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



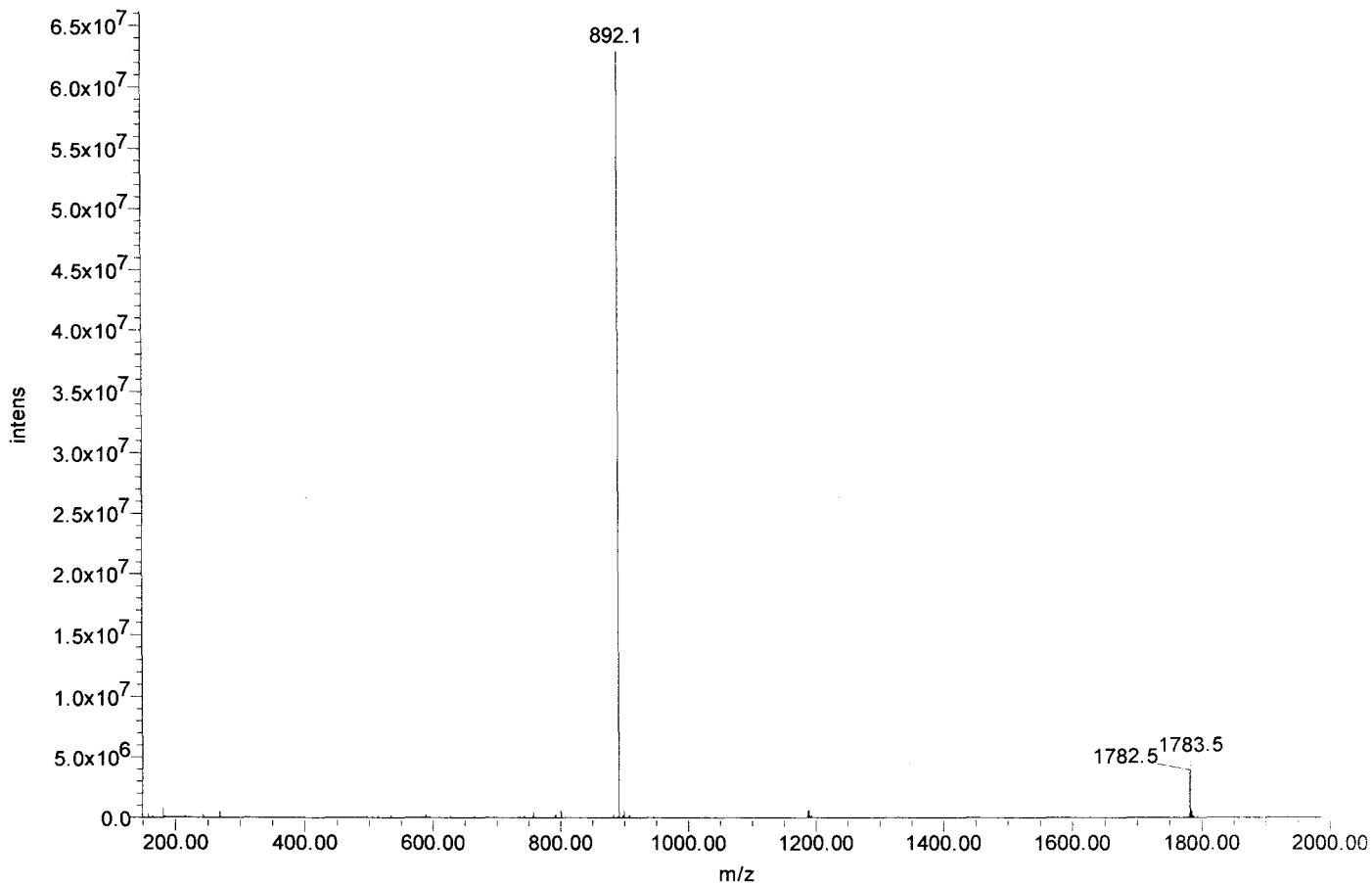
	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.4	10.382	53999	5627
2	0.5	10.635	66522	13636
3	96.6	10.798	12162098	1178834
4	0.8	11.087	94847	16268
5	1.2	11.545	151586	9759
6	0.5	12.529	56922	5053
Sum	100.00		12585973	1229176.7

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344874      **Lot # :** SW05243T      **Chemist :** Yan Li

Date Acquired : 5/29/2008 10:51:08 CST  
Expected MS : MW: 1782.0  
Acq. Method Set : Import  
Processing Method : 344874\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #135  
VIKSQDNQWSYKIHQ  
Cat#5844 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344875                   **Lot #:** SW05213T

**Sequence:** Val-Ile-Lys-Ser-Gln-Asp-Asn-Gln-Trp-Ser-Tyr-Lys-Ile-His-Gln

**Molecular Weight:** 1874.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 92.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 75.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.19	Ile	2.00	1.65	*1		Trp	1.00	0.00	*2
Glx	3.00	3.00	Lys	2.00	2.09			Tyr	1.00	1.04	
His	1.00	0.97	Ser	2.00	1.71			Val	1.00	0.76	*1

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

\*2 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/30/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

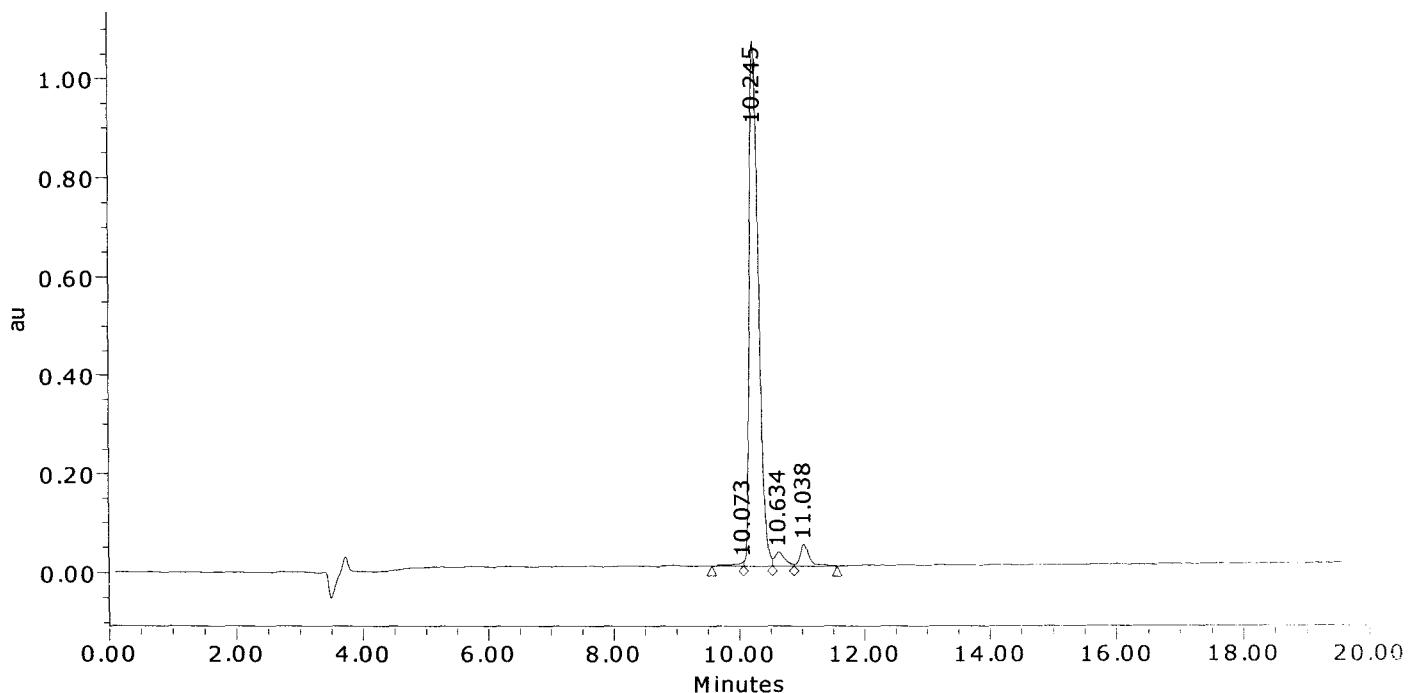
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344875/SW05213T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 15:22:17 CST  
Sample ID: 344875 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344875\_A Final\_PDA  
Date Acquired: 5/27/2008 14:20:43 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



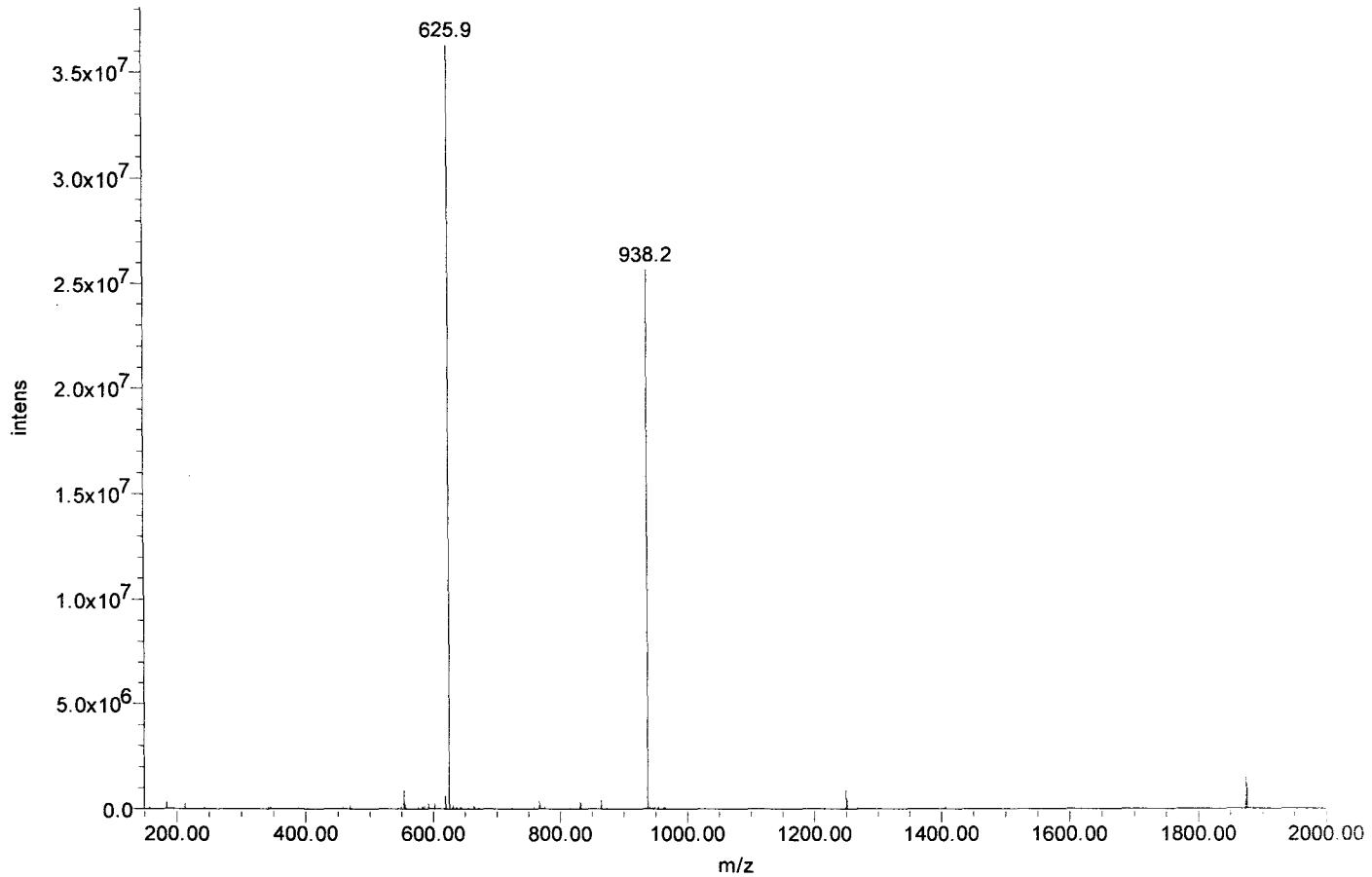
	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	10.073	69663	8651
2	92.8	10.245	10711001	1064351
3	2.7	10.634	311195	27660
4	3.9	11.038	449691	43598
Sum	100.00		11541549	1144260.1

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344875      **Lot # :** SW05213T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 14:20:43 CST  
Expected MS : MW: 1874.1  
Acq. Method Set : Import  
Processing Method : 344875\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #136  
QDNQWSYKIHQEDKI  
Cat#5845 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344876                   **Lot #:** SW05214T

**Sequence:** Gln-Asp-Asn-Gln-Trp-Ser-Tyr-Lys-Ile-His-Gln-Glu-Asp-Lys-Ile

**Molecular Weight:** 1932.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	3.00	3.19		Ile	2.00	2.01		Trp	1.00	0.00	*1
Glx	4.00	4.00		Lys	2.00	2.08		Tyr	1.00	1.04	
His	1.00	0.99		Ser	1.00	0.87					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/30/08

Quality Control Department

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1271 Avenida Chelsea  
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Tel: 760-597-8820 Fax: 760-597-8816

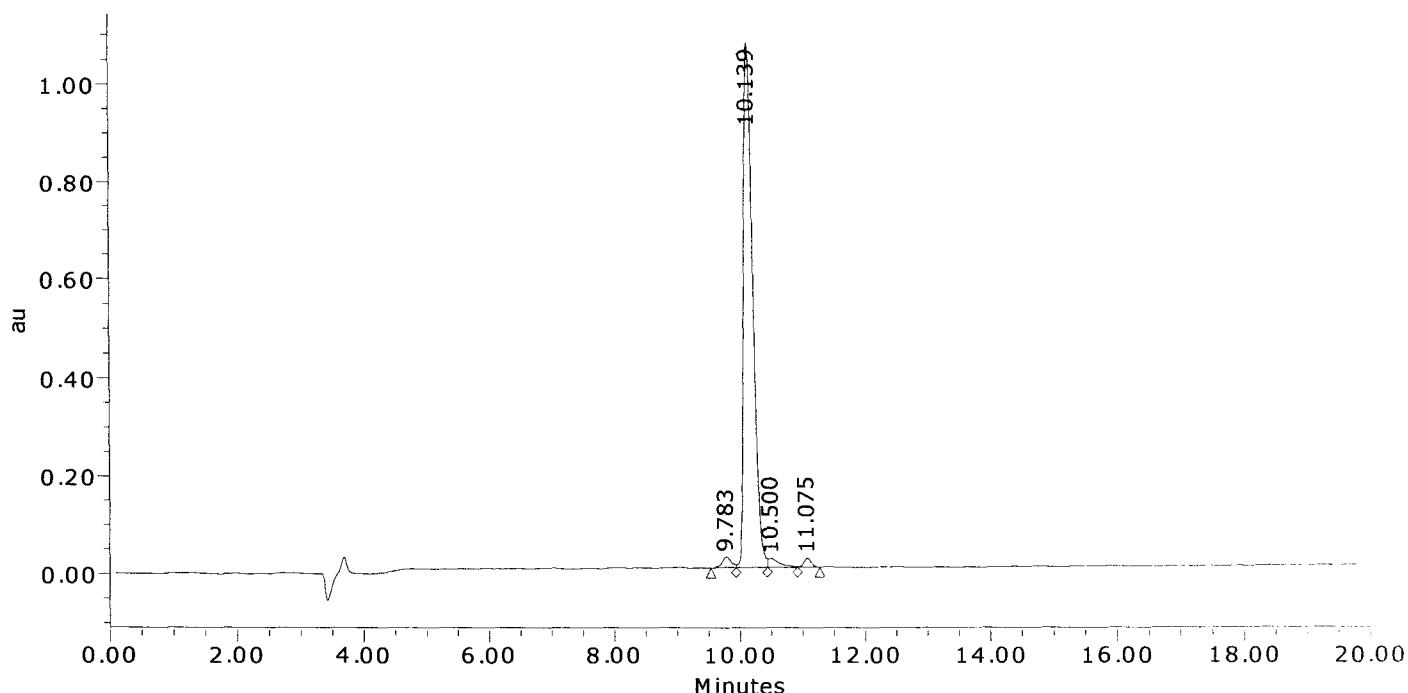
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344876/SW05214T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 14:18:13 CST  
Sample ID: 344876 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344876\_A Final\_PDA  
Date Acquired: 5/27/2008 13:03:31 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17%-37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



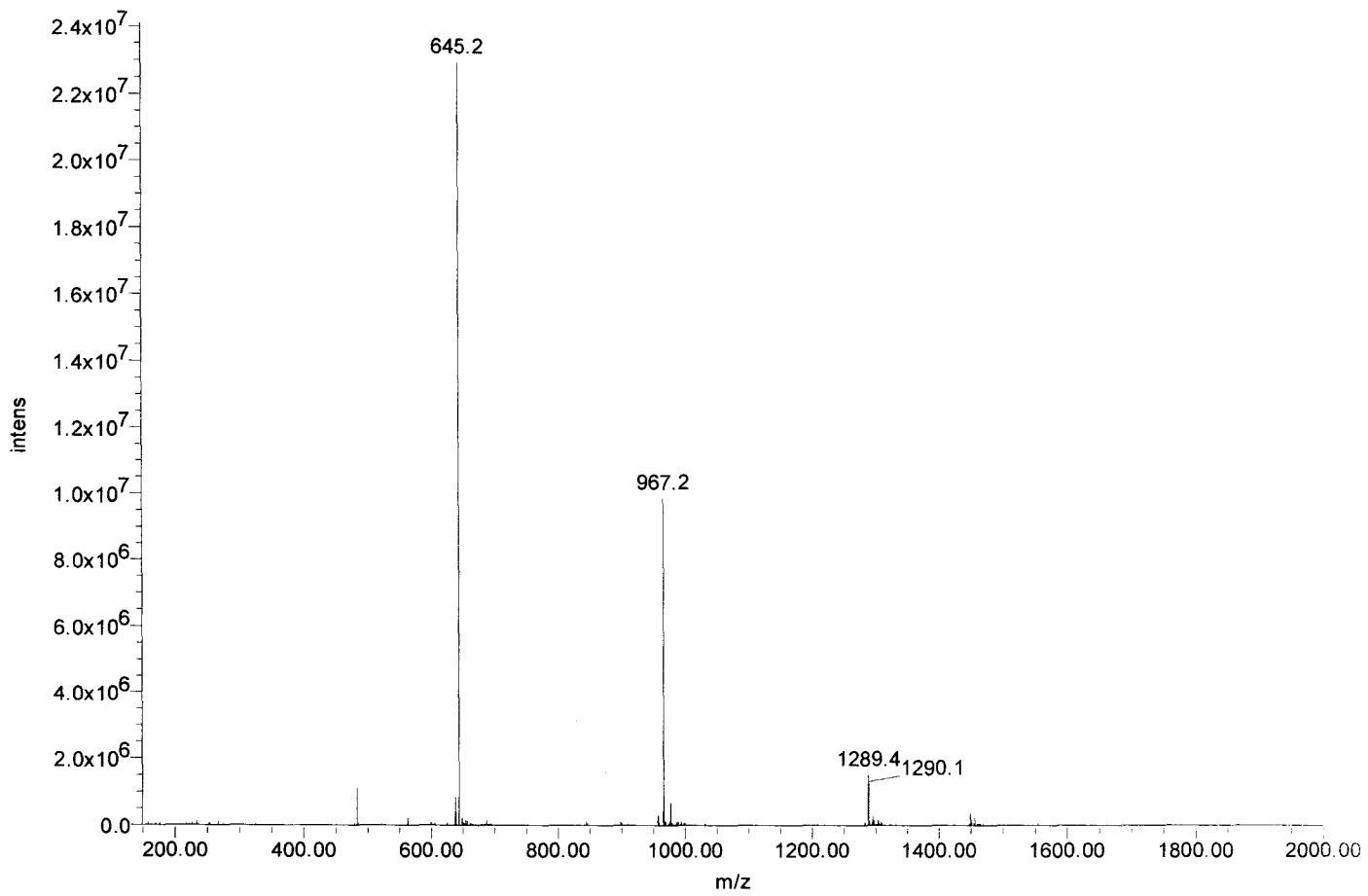
	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.8	9.783	212019	21326
2	95.1	10.139	10999705	1071740
3	1.9	10.500	216133	17414
4	1.2	11.075	143846	18120
<b>Sum</b>	<b>100.00</b>		<b>11571703</b>	<b>1128599.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344876      **Lot # :** SW05214T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 16:42:49 CST  
Expected MS : MW: 1932.1  
Acq. Method Set : Import  
Processing Method : 344876\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #137  
WSYKIHQEDKILKVG  
Cat#5846 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344877                   **Lot #:** SW05220T  
**Sequence:** Trp-Ser-Tyr-Lys-Ile-His-Gln-Glu-Asp-Lys-Ile-Leu-Lys-Val-Gly  
**Molecular Weight:** 1844.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.11		Ile	2.00	1.95		Trp	1.00	0.00	*1
Glx	2.00	2.08		Leu	1.00	1.09		Tyr	1.00	1.04	
Gly	1.00	1.12		Lys	3.00	3.19		Val	1.00	1.11	
His	1.00	1.00		Ser	1.00	0.87					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/02/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

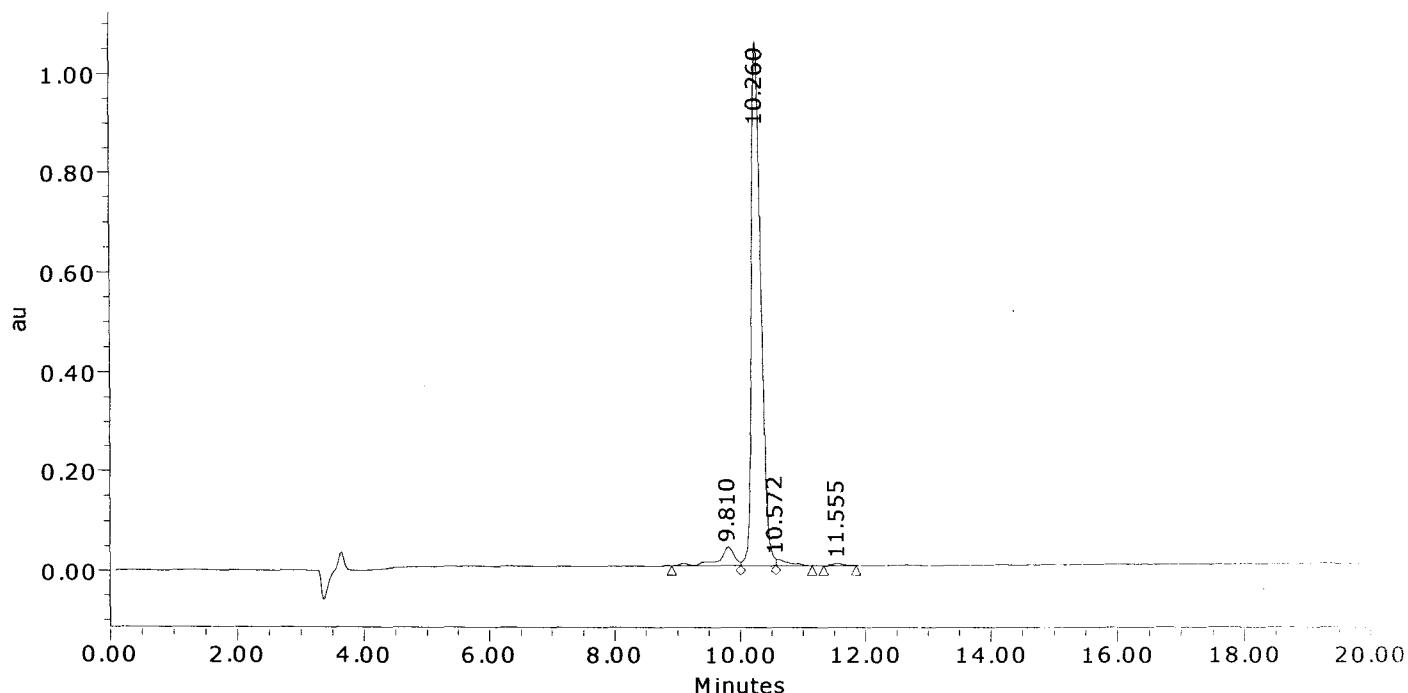
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344877/SW05220T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 9:31:46 CST  
Sample ID: 344877 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344877\_A Final\_PDA  
Date Acquired: 5/27/2008 18:28:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	5.7	9.810	675352	37886
2	92.5	10.260	11022045	1054233
3	1.4	10.572	171181	12999
4	0.4	11.555	49346	4953
Sum	100.00		11917924	1110071.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344877

Lot # : SW05220T

Chemist : Yan Li

Date Acquired :

5/27/2008 18:28:04 CST

Expected MS :

MW: 1844.2

Acq. Method Set :

Import

Processing Method :

344877\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

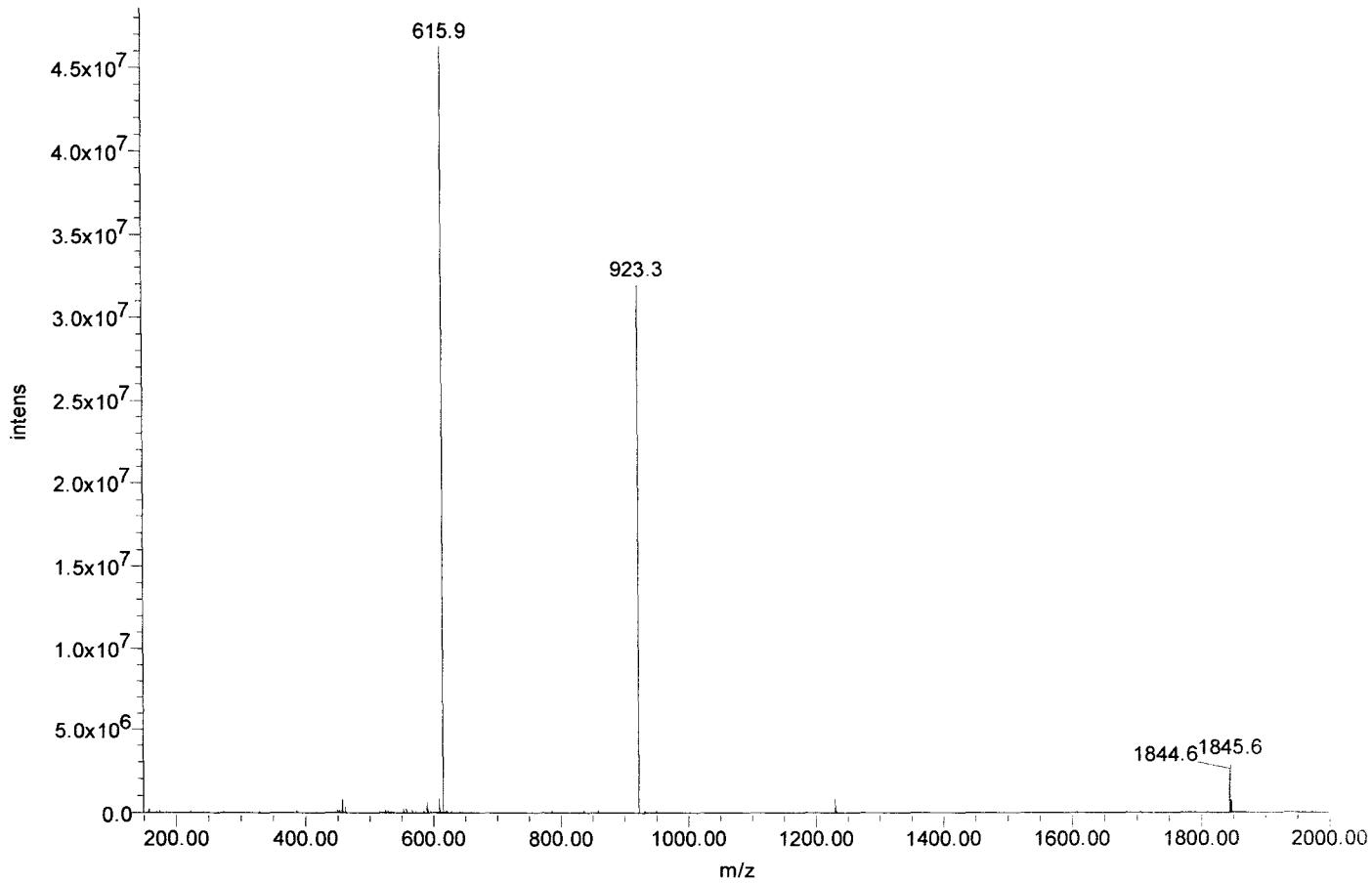
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #138  
IHQEDKILKVGKFAK  
Cat#5847 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344878                   **Lot #:** SW05204T

**Sequence:** Ile-His-Gln-Glu-Asp-Lys-Ile-Leu-Lys-Val-Gly-Lys-Phe-Ala-Lys

**Molecular Weight:** 1754.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 71.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		His	1.00	0.88		Lys	4.00	3.96	
Asx	1.00	1.05		Ile	2.00	1.78		Phe	1.00	1.01	
Glx	2.00	2.21		Leu	1.00	1.04		Val	1.00	1.03	
Gly	1.00	1.00									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/28/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

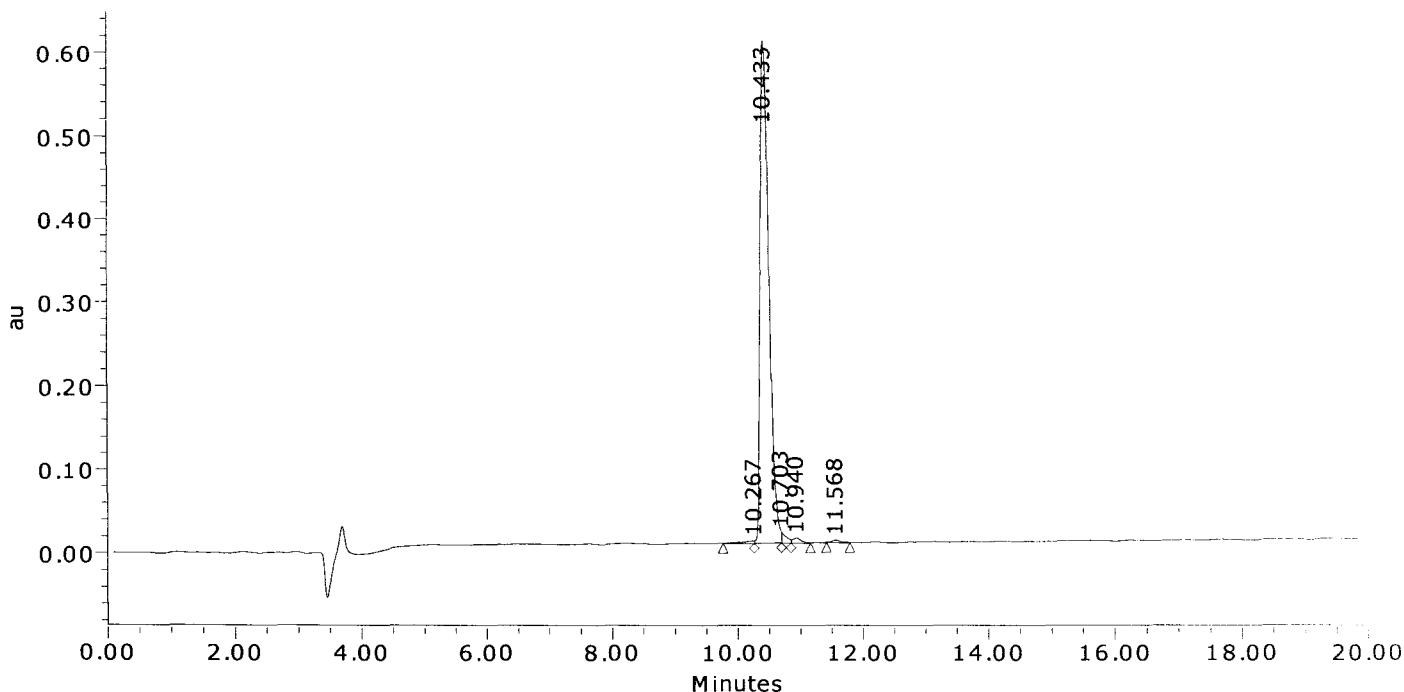
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344878/SW05204T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 11:40:10 CST  
Sample ID: 344878 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344878\_A Final\_PDA  
Date Acquired: 5/26/2008 19:28:51 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



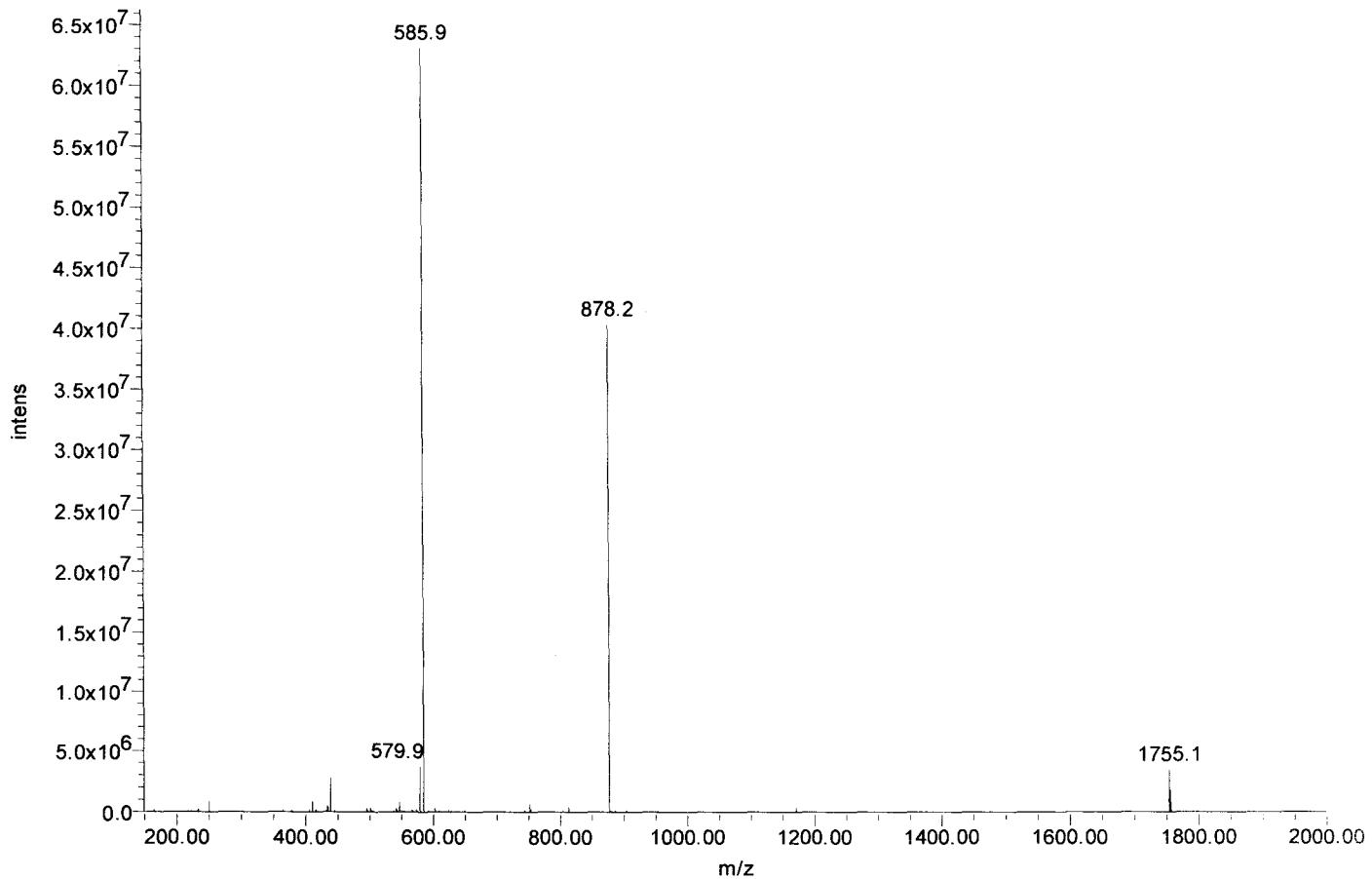
	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.6	10.267	36280	2597
2	97.0	10.433	5842001	601891
3	1.1	10.703	66333	12500
4	0.9	10.940	52071	5624
5	0.4	11.568	23536	2381
Sum	100.00		6020221	624992.5

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344878      **Lot # :** SW05204T      **Chemist :** Yan Li

Date Acquired : 5/26/2008 19:28:51 CST  
Expected MS : MW: 1754.1  
Acq. Method Set : Import  
Processing Method : 344878\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #139  
DKILKVGKFAKIKNT  
Cat#5848 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344879                   **Lot #:** SW05198T

**Sequence:** Asp-Lys-Ile-Leu-Lys-Val-Gly-Lys-Phe-Ala-Lys-Ile-Lys-Asn-Thr

**Molecular Weight:** 1703.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "

(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 89.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 63.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.97		Ile	2.00	1.78		Phe	1.00	0.96	
Asx	2.00	1.85		Leu	1.00	1.00		Thr	1.00	1.04	
Gly	1.00	0.93		Lys	5.00	4.74		Val	1.00	0.96	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/29/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

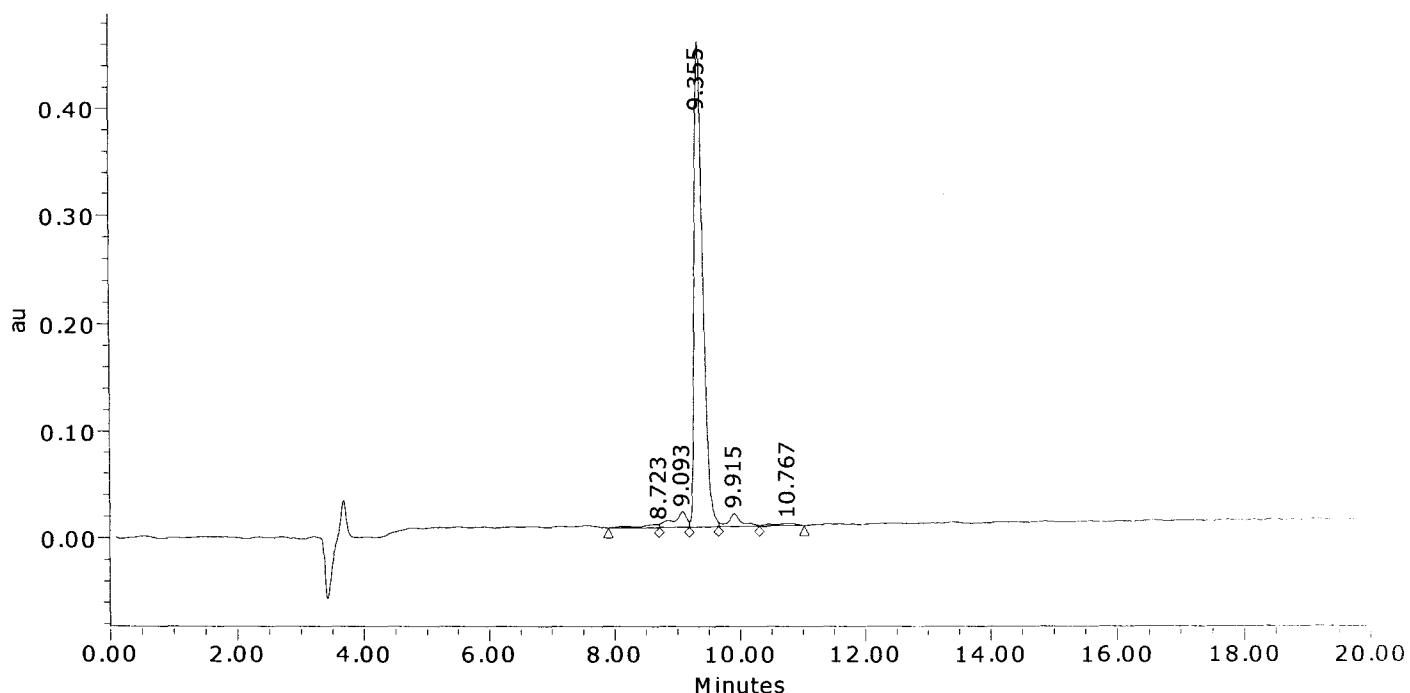
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344879/SW05198T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 11:15:13 CST  
Sample ID: 344879 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344879\_A Final\_PDA  
Date Acquired: 5/26/2008 15:54:39 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

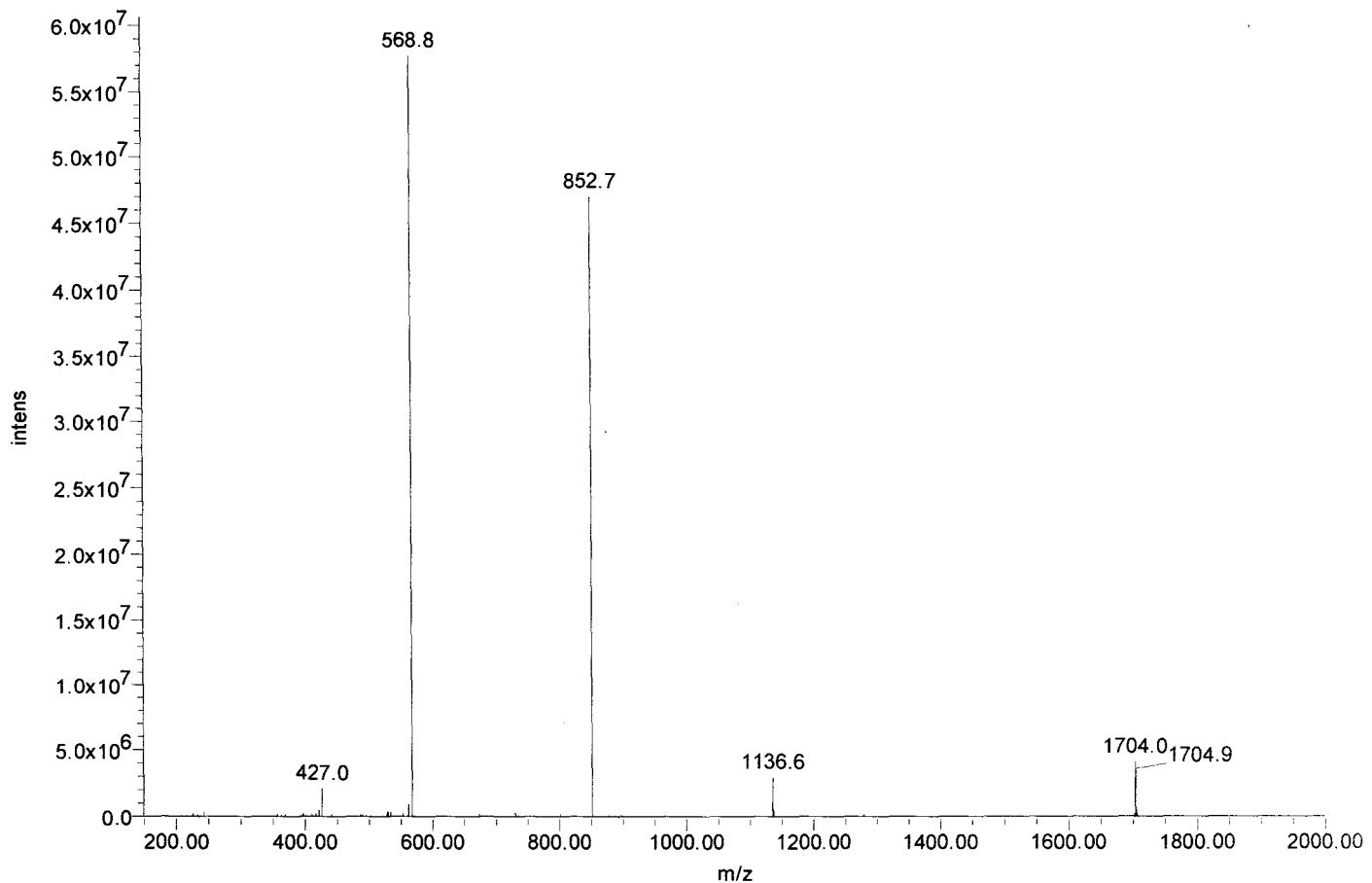


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.5	8.723	71423	3135
2	4.5	9.093	215424	14197
3	89.2	9.355	4253382	452142
4	3.6	9.915	171635	11965
5	1.2	10.767	54958	1926
Sum	100.00		4766821	483364.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344879      **Lot # :** SW05198T      **Chemist :** Yan Li

Date Acquired : 5/26/2008 15:54:39 CST  
Expected MS : MW: 1703.1  
Acq. Method Set : Import  
Processing Method : 344879\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #140  
KVGKFAKIKNTHTNG  
Cat#5849 Lot#080132  
Net Wt. 1mg

**Product Name:**

Custom Peptide

**Product #:**

344880

**Lot #:** SW05215T**Sequence:**

Lys-Val-Gly-Lys-Phe-Ala-Lys-Ile-Lys-Asn-Thr-His-Thr-Asn-Gly

**Molecular Weight:**

1642.9 amu

**Mass Spectra Analysis:**

Electrospray " Exhibits correct MW "

(see attached MS spectrogram)

**HPLC Analysis:**

Peptide Purity: 94.3%

(see attached HPLC chromatogram)

**Solubility:**

1.0 mg/mL in 10% Acetonitrile in water

**Appearance:**

White lyophilized powder

**Peptide Content:**

68.7%

**Counter Ion:**

Trifluoroacetate

**Date of Mfg:**

05/27/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.06		His	1.00	1.01		Phe	1.00	1.06	
Asx	2.00	2.00		Ile	1.00	1.10		Thr	2.00	2.02	
Gly	2.00	2.03		Lys	4.00	4.08		Val	1.00	1.09	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:****Date:** 05/30/08

Quality Control Department

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Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

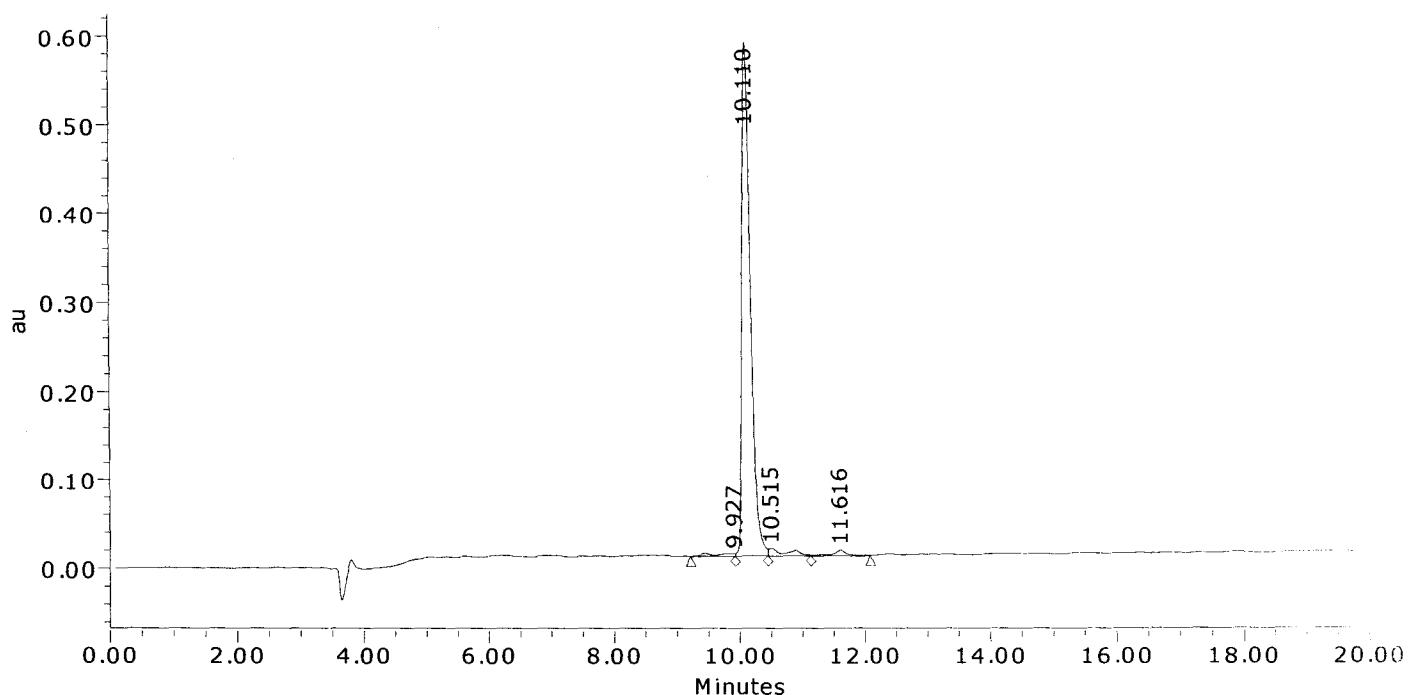
1-2-1 Kubogacka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344880/SW05215T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 12:01:56 CST  
Sample ID: 344880 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344880\_A Final\_PDA  
Date Acquired: 5/27/2008 21:03:03 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 11% -31% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

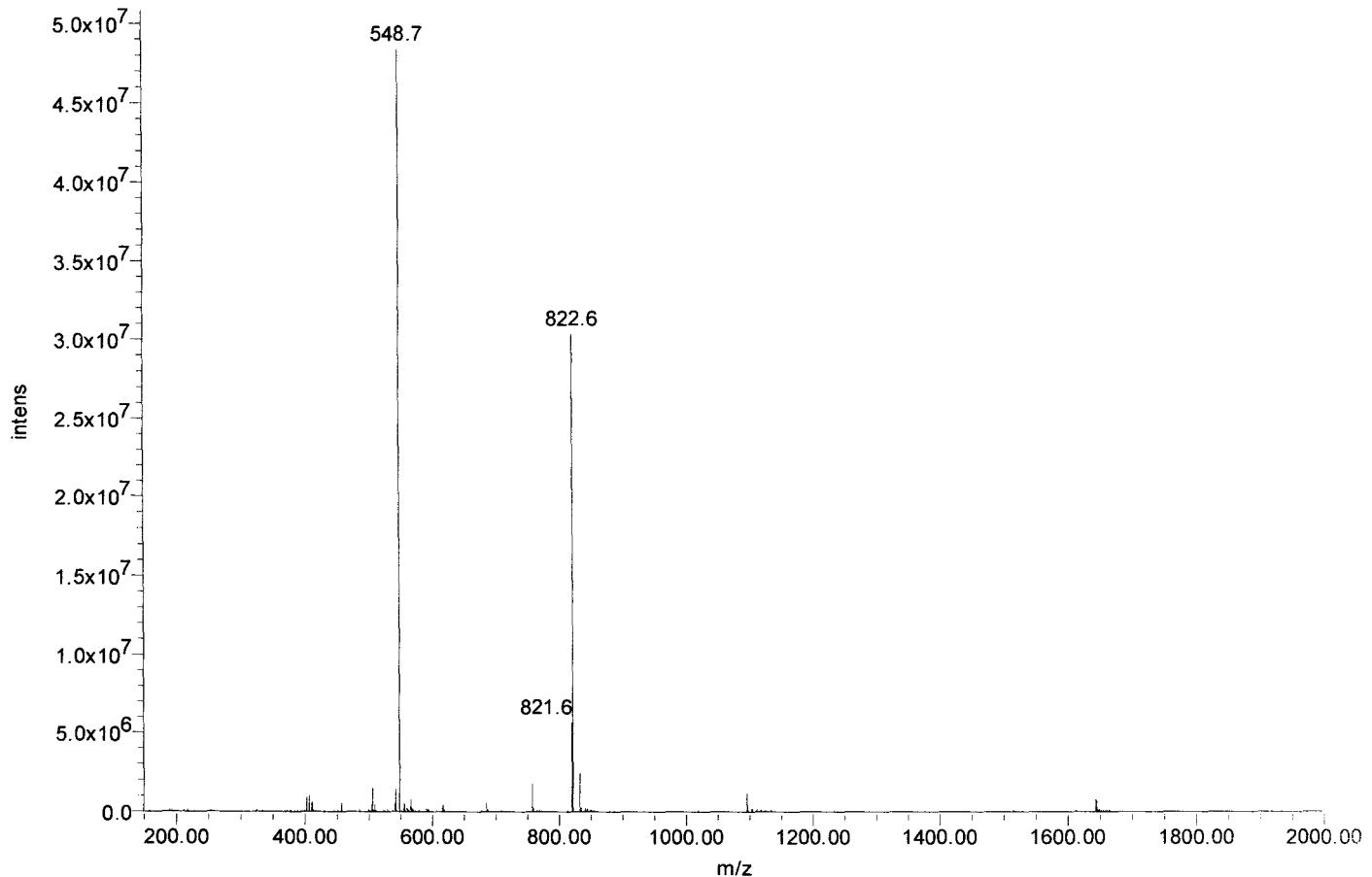


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.2	9.927	70684	2916
2	94.3	10.110	5513571	578918
3	2.8	10.515	165734	8328
4	1.7	11.616	97391	6132
<b>Sum</b>	<b>100.00</b>		<b>5847380</b>	<b>596294.1</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344880      **Lot # :** SW05215T      **Chemist :** Yan Li

Date Acquired : 5/28/2008 17:06:38 CST  
Expected MS : MW: 1642.9  
Acq. Method Set : Import  
Processing Method : 344880\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #141**  
FAKIKNTHTNGVRLL  
Cat#5850 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344881                   **Lot #:** SW05219T

**Sequence:** Phe-Ala-Lys-Ile-Lys-Asn-Thr-His-Thr-Asn-Gly-Val-Arg-Leu-Leu

**Molecular Weight:** 1712.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.0%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 67.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00	His	1.00	0.98	Phe	1.00	0.96
Arg	1.00	0.97	Ile	1.00	0.90	Thr	2.00	2.06
Asx	2.00	1.98	Leu	2.00	2.00	Val	1.00	0.97
Gly	1.00	1.00	Lys	2.00	1.90			

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/29/08  
**Quality Control Department**

Quality Control Department

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Vista, CA 92081 USA

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

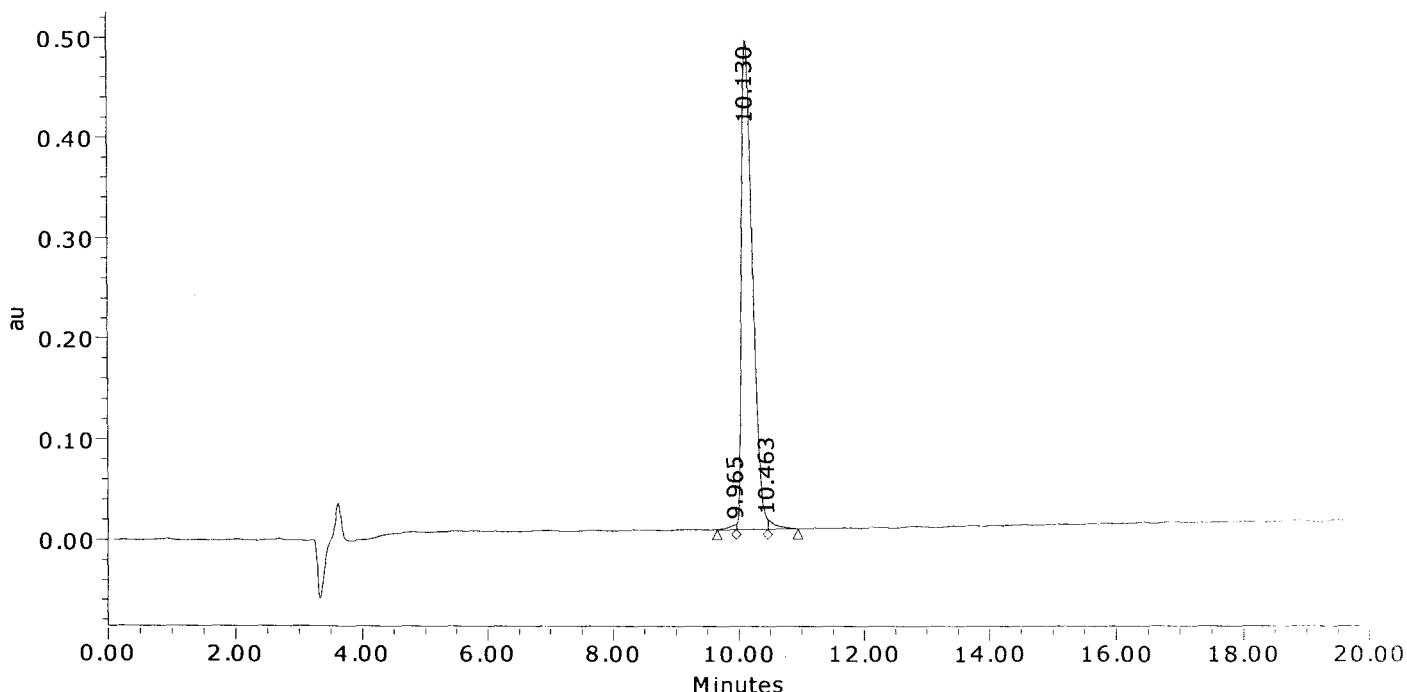
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344881/SW05219T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 9:25:47 CST  
Sample ID: 344881 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344881\_A Final\_PDA  
Date Acquired: 5/27/2008 17:50:27 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



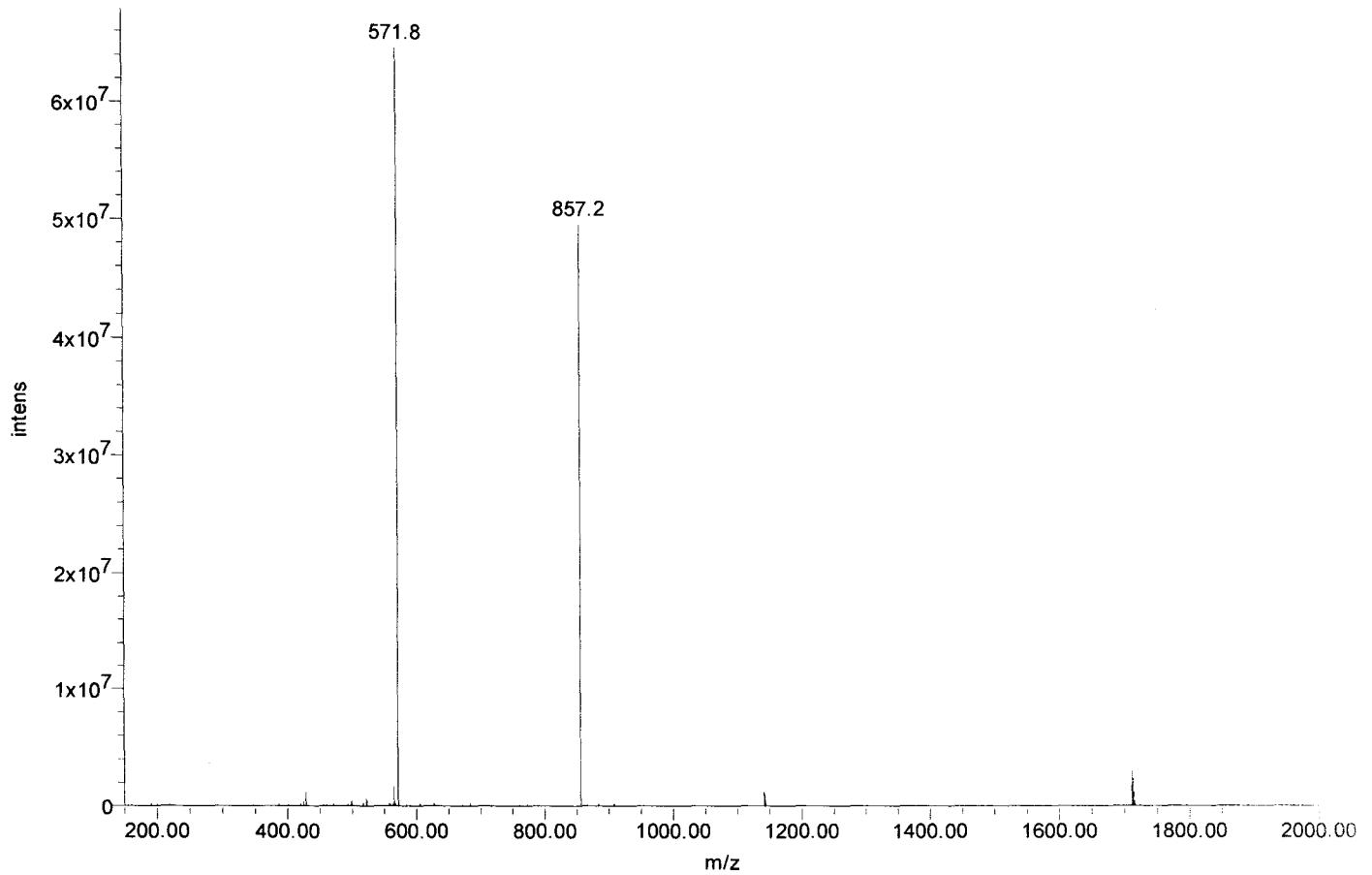
	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.6	9.965	35146	4741
2	98.0	10.130	5859804	486619
3	1.4	10.463	83136	9815
<b>Sum</b>	<b>100.00</b>		<b>5978086</b>	<b>501174.3</b>

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344881      **Lot # :** SW05219T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 17:50:27 CST  
Expected MS : MW: 1712.0  
Acq. Method Set : Import  
Processing Method : 344881\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #142  
KNTHINGVRLLAHVI  
Cat#5851 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344882                   **Lot #:** SW05211T  
**Sequence:** Lys-Asn-Thr-His-Thr-Asn-Gly-Val-Arg-Leu-Leu-Ala-His-Val-Ile  
**Molecular Weight:** 1673.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		His	2.00	1.99		Lys	1.00	0.99	
Arg	1.00	1.00		Ile	1.00	0.77	*1	Thr	2.00	2.01	
Asx	2.00	1.97		Leu	2.00	2.05		Val	2.00	1.72	*1
Gly	1.00	1.01									

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yanz Li*  
Quality Control Department

Date: 05/30/08

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
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Sunnyvale, CA 94086 USA  
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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

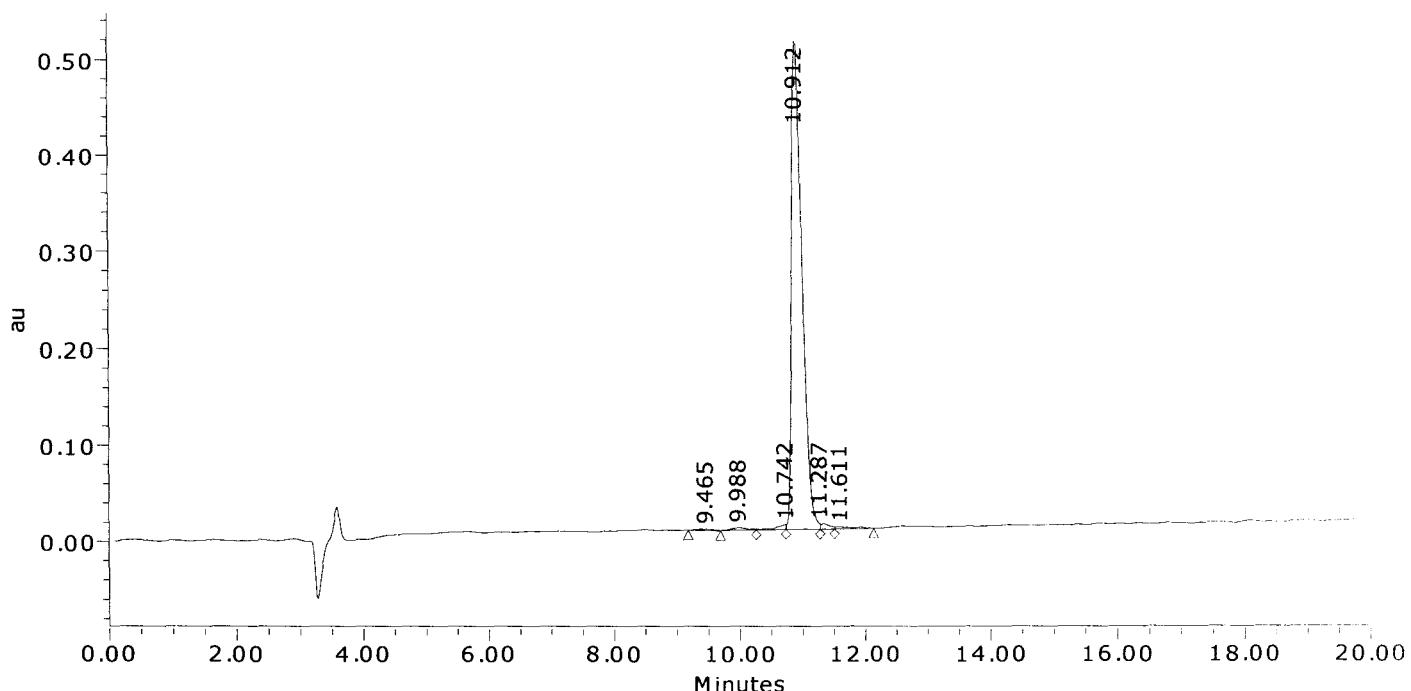
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344882/SW05211T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 14:10:26 CST  
Sample ID: 344882 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344882\_A Final\_PDA  
Date Acquired: 5/27/2008 12:23:54 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22%-42% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



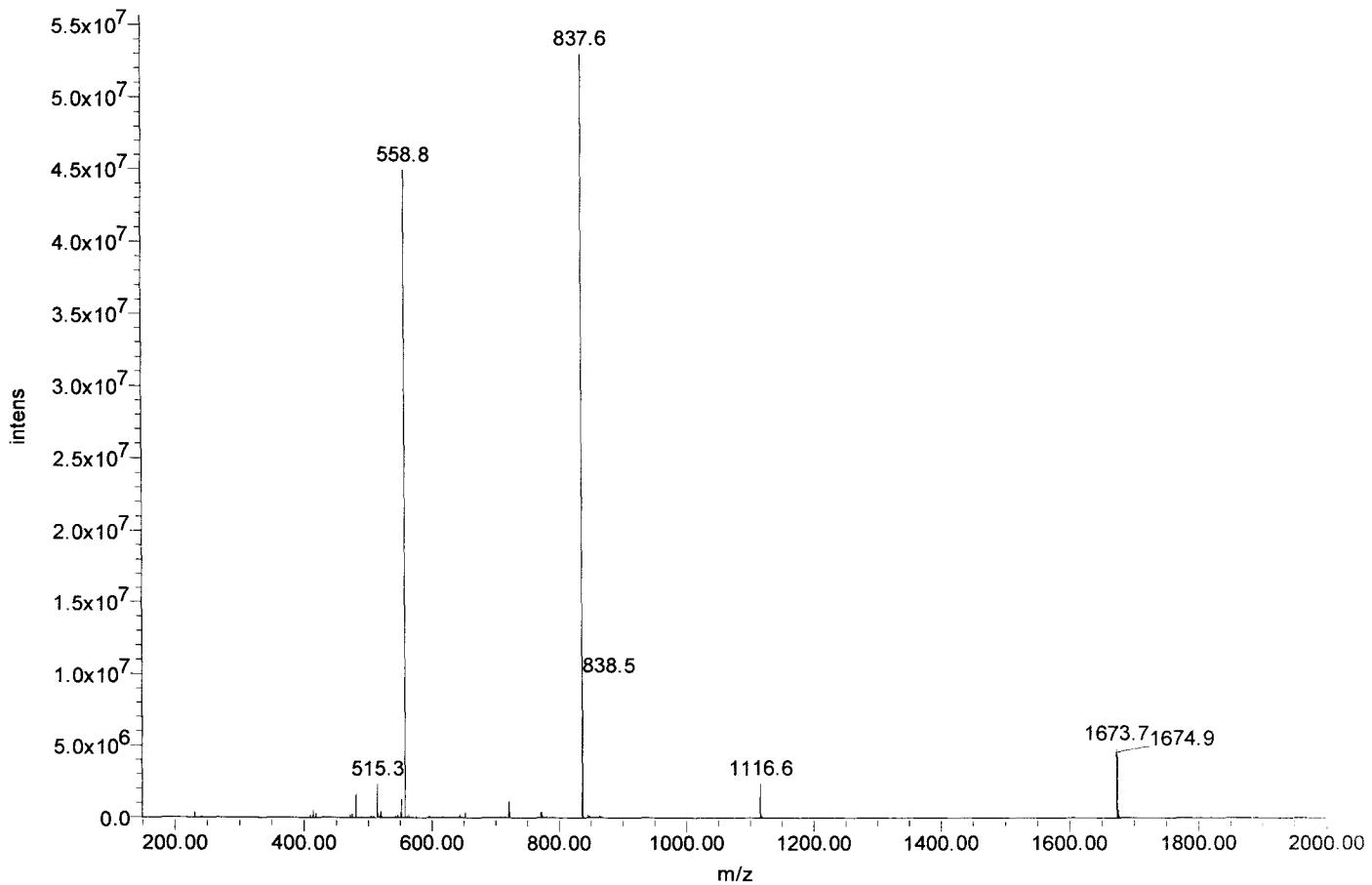
	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	9.465	22479	1367
2	0.7	9.988	42920	2599
3	1.0	10.742	58066	5045
4	96.2	10.912	5881465	505627
5	0.9	11.287	53495	5644
6	0.9	11.611	52729	2056
Sum	100.00		6111155	522338.0

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344882      **Lot # :** SW05211T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 12:23:54 CST  
Expected MS : MW: 1673.0  
Acq. Method Set : Import  
Processing Method : 344882\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #143  
TNGVRLAIIIVIQKIG  
Cat#5852 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344883                   **Lot #:** SW05208T

**Sequence:** Thr-Asn-Gly-Val-Arg-Leu-Leu-Ala-His-Val-Ile-Gln-Lys-Ile-Gly

**Molecular Weight:** 1619.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 75.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		Gly	2.00	1.98		Lys	1.00	1.01	
Arg	1.00	1.00		His	1.00	0.99		Thr	1.00	0.96	
Asx	1.00	0.97		Ile	2.00	1.68		Val	2.00	1.63	
Glx	1.00	0.96		Leu	2.00	2.05					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/30/08

Quality Control Department

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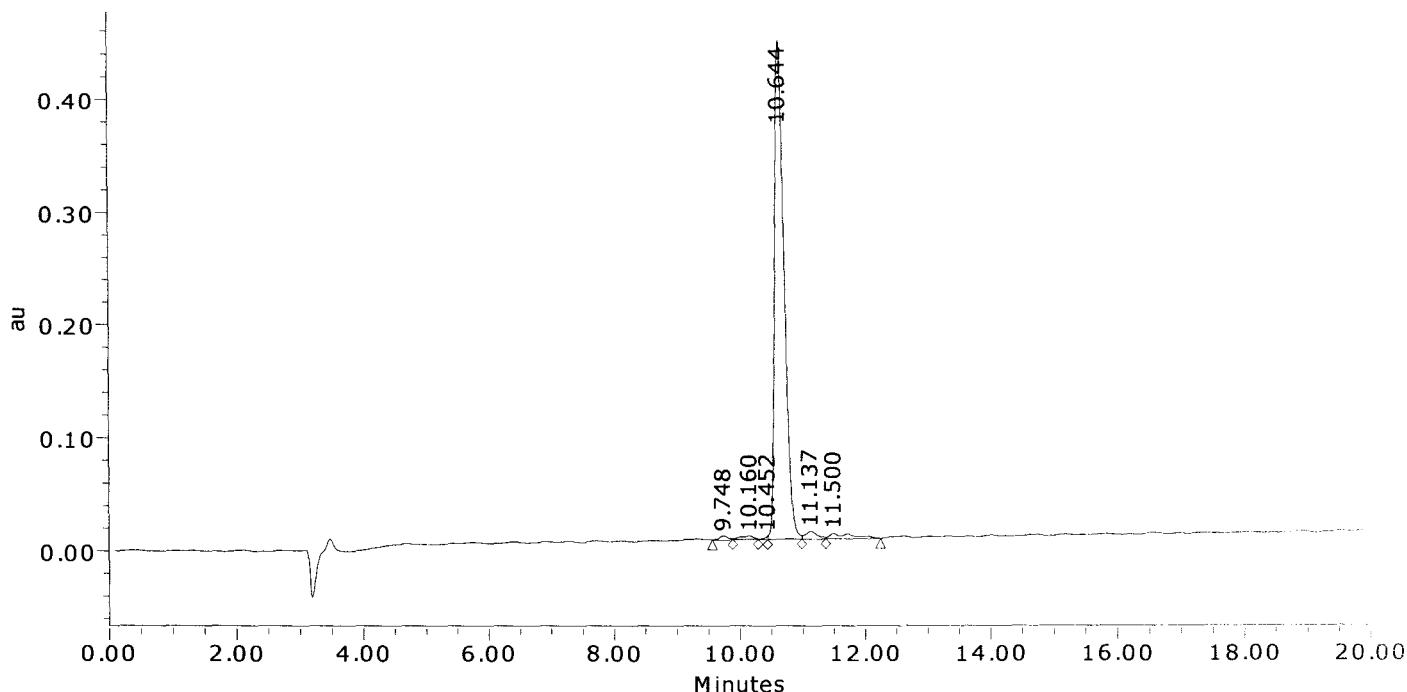
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344883/SW05208T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 14:00:57 CST  
Sample ID: 344883 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344883\_A Final\_PDA  
Date Acquired: 5/27/2008 11:42:08 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

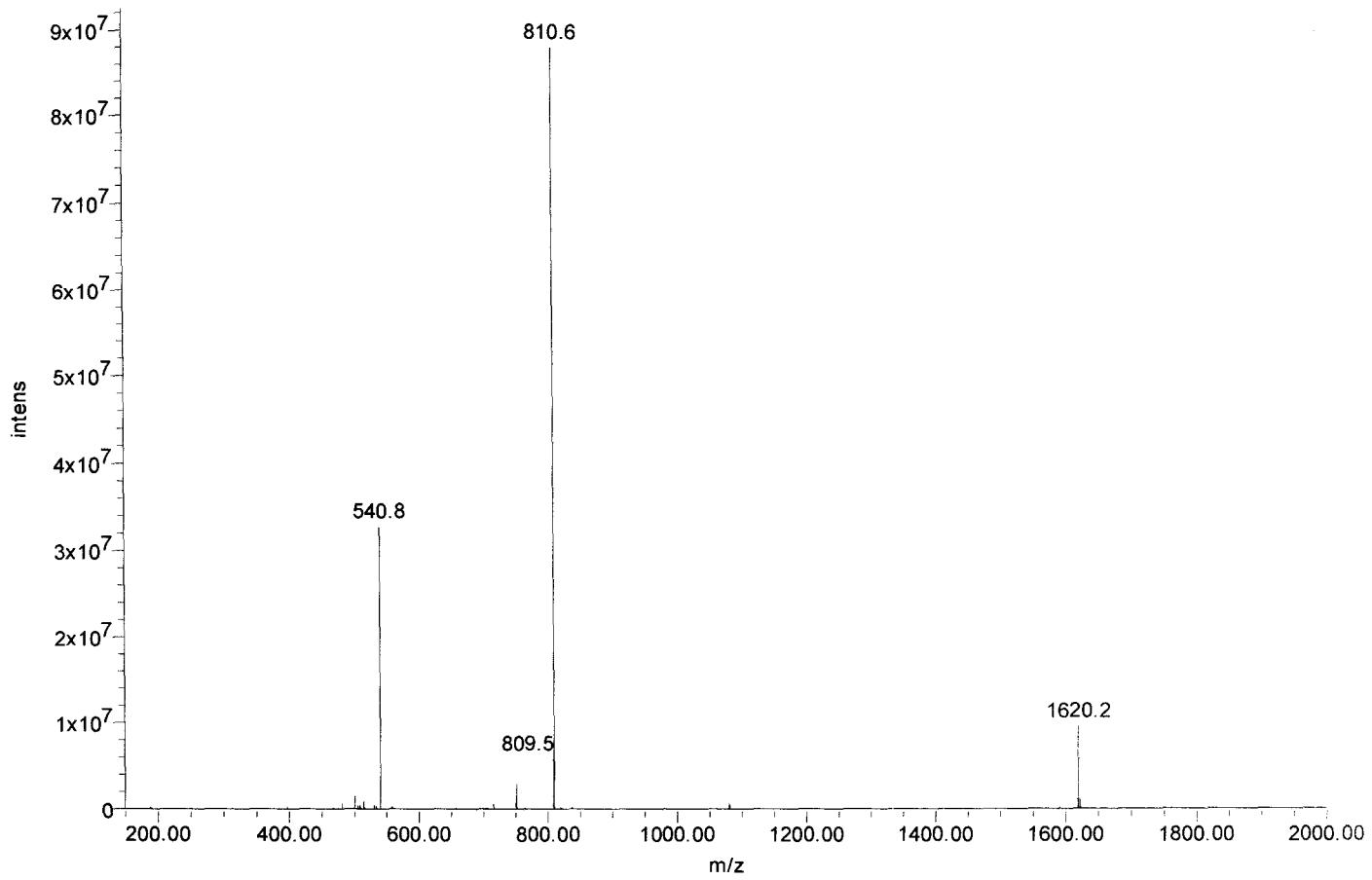


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.6	9.748	30848	3357
2	0.9	10.160	42615	2882
3	0.2	10.452	9396	3041
4	94.2	10.644	4658102	441408
5	1.8	11.137	90073	6836
6	2.4	11.500	116323	4553
<b>Sum</b>	<b>100.00</b>		<b>4947357</b>	<b>462077.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344883      **Lot # :** SW05208T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 11:42:08 CST  
Expected MS : MW: 1619.0  
Acq. Method Set : Import  
Processing Method : 344883\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #144**  
RLLAHVIQKIGKEAI  
Cat#5853 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344884                           **Lot #:** SW05146T

**Sequence:** Arg-Leu-Leu-Ala-His-Val-Ile-Gln-Lys-Ile-Gly-Lys-Glu-Ala-Ile

**Molecular Weight:** 1689.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.7%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/21/08

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.02	Gly	1.00	1.01	Leu	2.00	2.01
Arg	1.00	1.00	His	1.00	0.99	Lys	2.00	1.98
Glx	2.00	1.94	Ile	3.00	2.62	*1	Val	1.00

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

#### **Quality Assurance By:**

Yanz Li  
Quality Control Department

Date: 05/26/08

Quality Control Department

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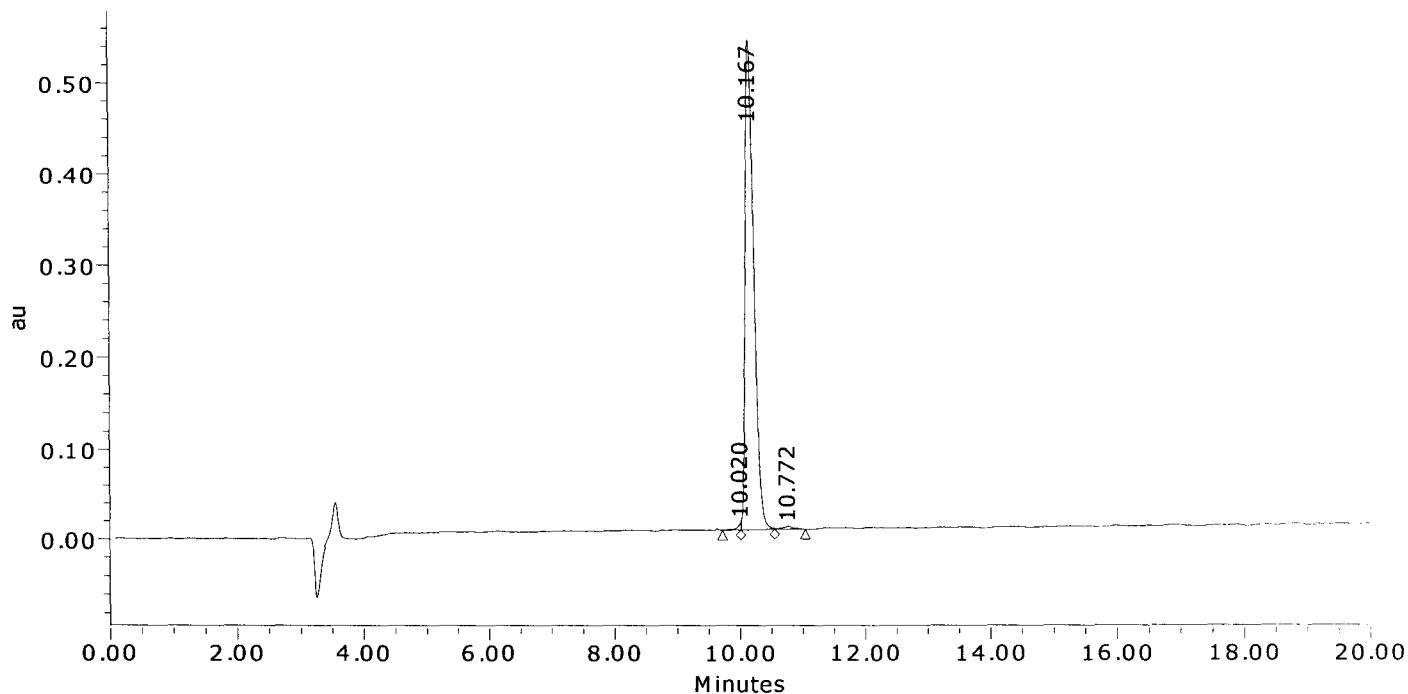
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344884/SW05146T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 11:15:51 CST  
Sample ID: 344884 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344884\_A\_Final\_PDA  
Date Acquired: 5/21/2008 18:59:20 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.5	10.020	28591	8309
2	98.7	10.167	5141925	537626
3	0.8	10.772	39869	3171
<b>Sum</b>	<b>100.00</b>		<b>5210385</b>	<b>549105.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344884

Lot # : SW05146T

Chemist : Yan Li

Date Acquired :

5/21/2008 18:59:20 CST

Expected MS :

MW: 1689.1

Acq. Method Set :

Import

Processing Method :

344884\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

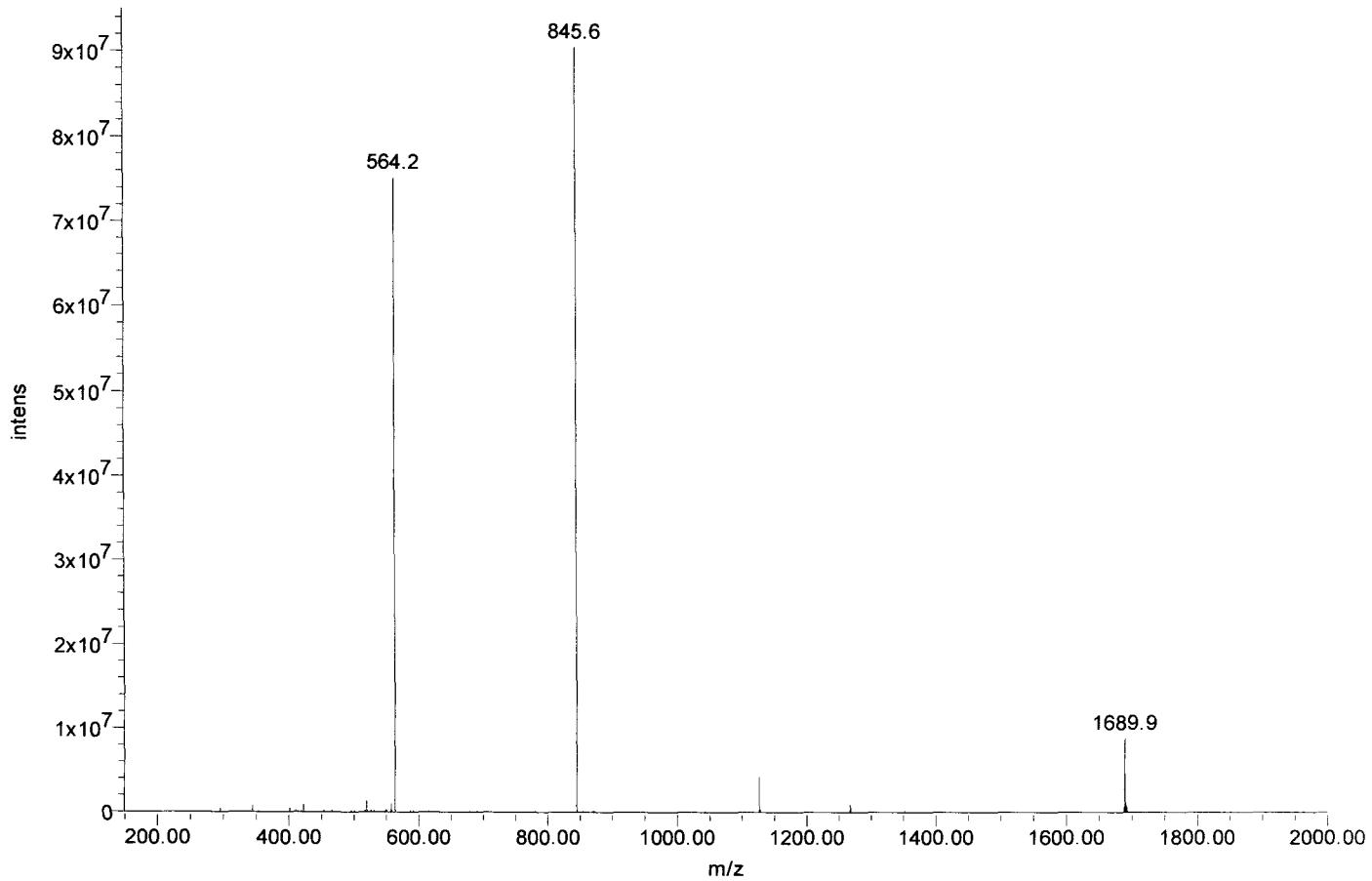
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

SIVmac239 Pol #135  
HVIQKIGKEAIVIWG  
Cat#5854 Lot#080132  
Net Wt. 1mg

## Certificate of Analysis

**Product Name:** Custom Peptide

**Product #:** 344885      **Lot #:** SW05225T

**Sequence:** His - Val - Ile - Gln - Lys - Ile - Gly - Lys - Glu - Ala - Ile - Val - Ile - Trp - Gly

**Molecular Weight:** 1691.1 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 94.1 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 77.6 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.11		His	1.00	1.00		Trp	1.00	0.00	*2
Glx	2.00	2.03		Ile	4.00	3.41	*1	Val	2.00	1.35	*1
Gly	2.00	2.18		Lys	2.00	2.14					

**Remarks:** \*1 Val-Ile bond was only partially hydrolyzed during hydrolysis.

\*2 Trp was completely destroyed during hydrolysis.

**Not for human use, research purposes only.**

**IMPORTANT: Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.**

**Quality Assurance By:** \_\_\_\_\_

*Shilpa Patel*

Quality Control Department

Date: 07/02/08

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Tel: 760-597-8820 Fax: 760-597-8816

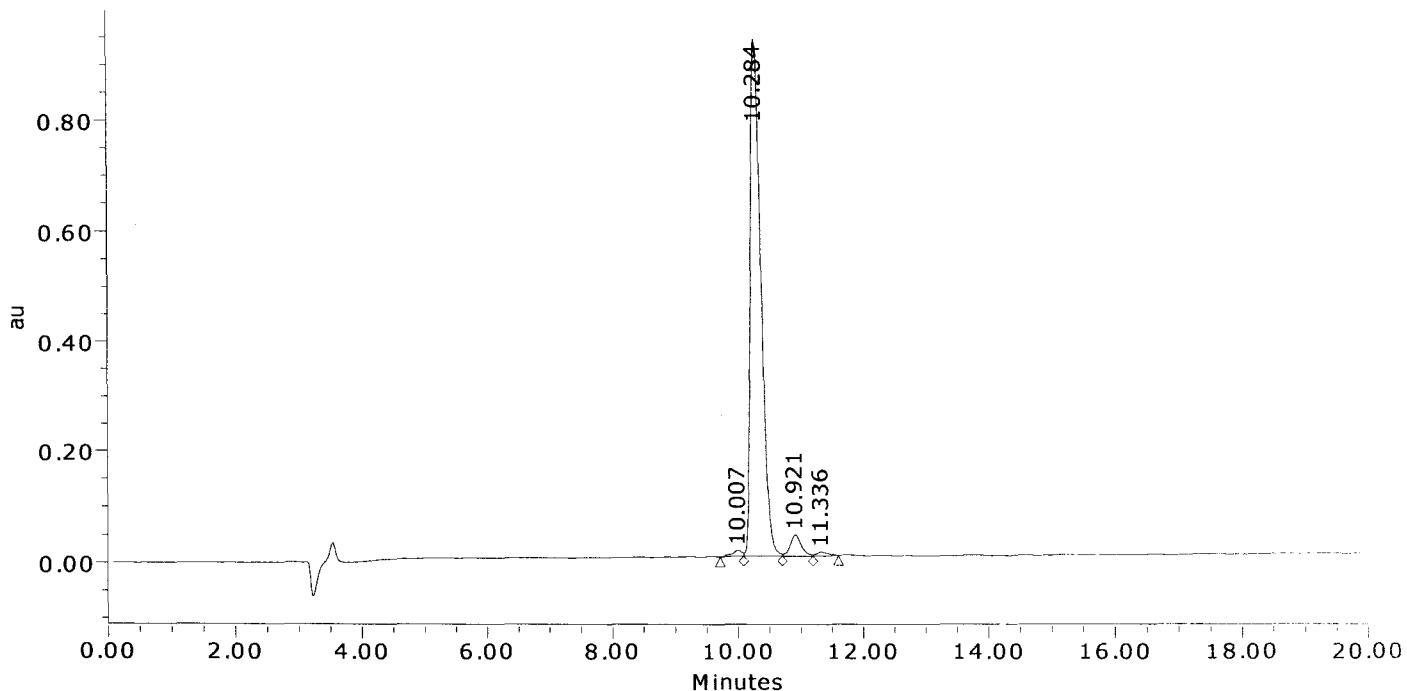
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344885/SW05225T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 12:28:02 CST  
Sample ID: 344885 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344885\_A Final\_PDA  
Date Acquired: 5/28/2008 10:41:52 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.0	10.007	118786	11153
2	94.1	10.284	10965467	934650
3	4.1	10.921	473792	38222
4	0.8	11.336	94398	7426
<b>Sum</b>	<b>100.00</b>		<b>11652443</b>	<b>991450.8</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344885

Lot # : SW05225T

Chemist : Yan Li

Date Acquired :

5/28/2008 10:41:52 CST

Expected MS:

MW: 1691.1

Acq. Method Set :

Import

Processing Method :

344885\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

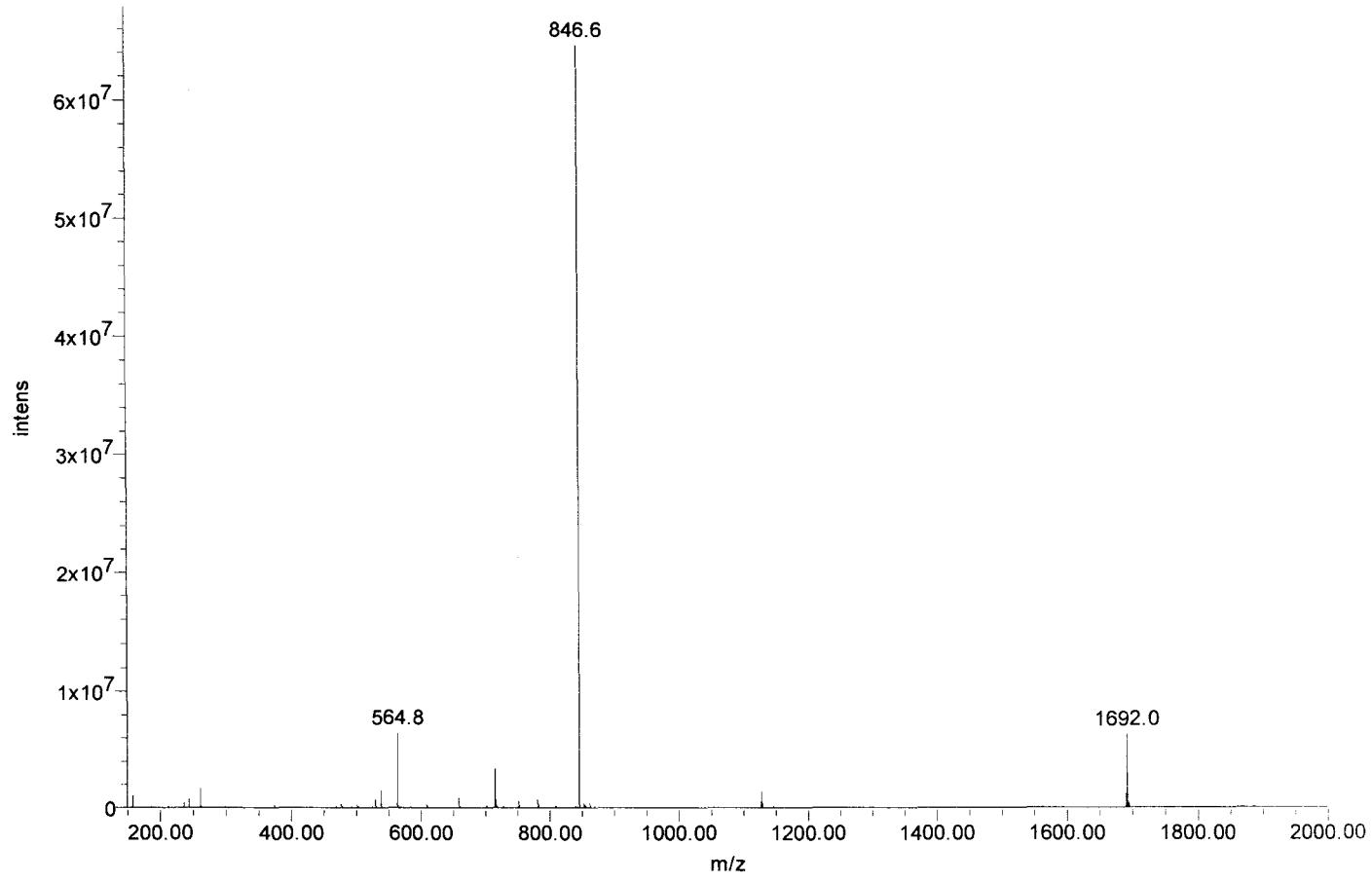
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #146  
KIGKEAIVIWGQVPK  
Cat#5855 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344886                   **Lot #:** SW05131T  
**Sequence:** Lys-Ile-Gly-Lys-Glu-Ala-Ile-Val-Ile-Trp-Gly-Gln-Val-Pro-Lys  
**Molecular Weight:** 1666.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.07		Ile	3.00	2.67		Trp	1.00	0.00	*1
Glx	2.00	2.00		Lys	3.00	3.03		Val	2.00	1.64	
Gly	2.00	2.03		Pro	1.00	0.91					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/25/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

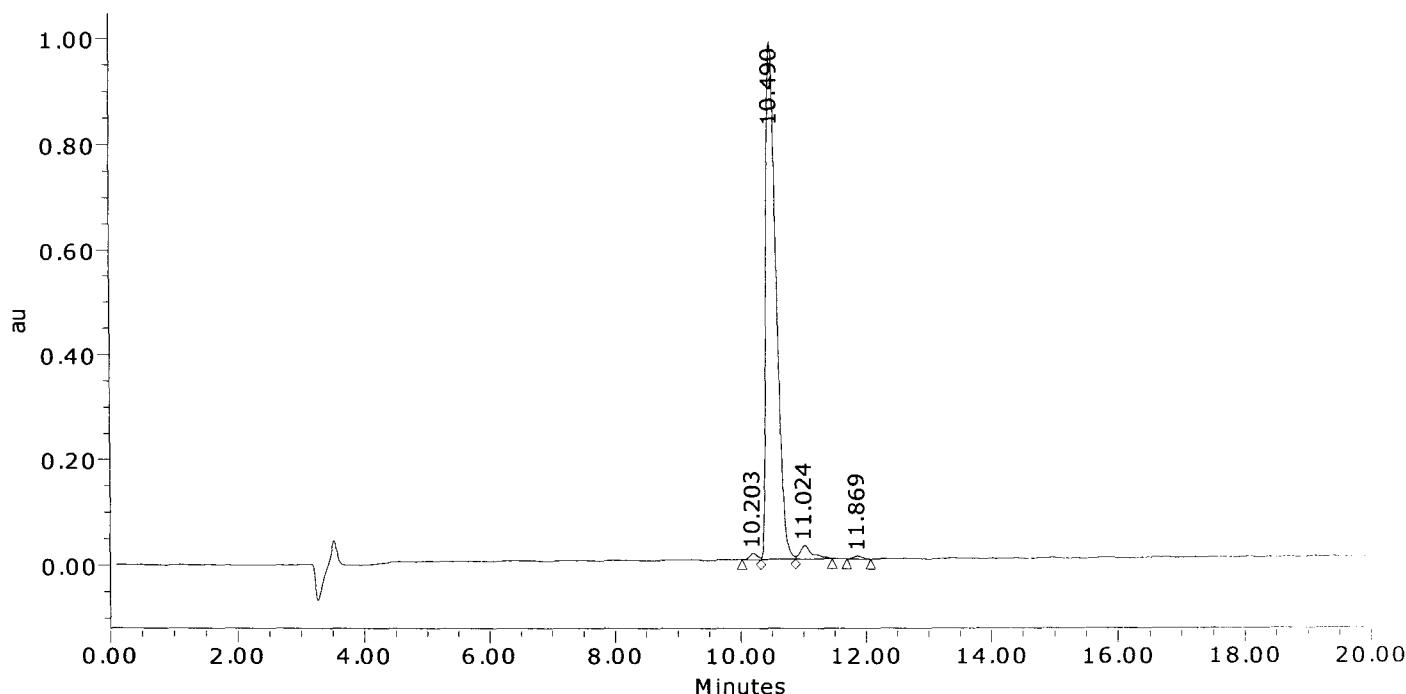
1-2-1 Kubogacka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344886/SW05131T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -Imfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/21/2008 16:45:30 CST  
Sample ID: 344886 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344886\_A Final\_PDA  
Date Acquired: 5/21/2008 12:48:57 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

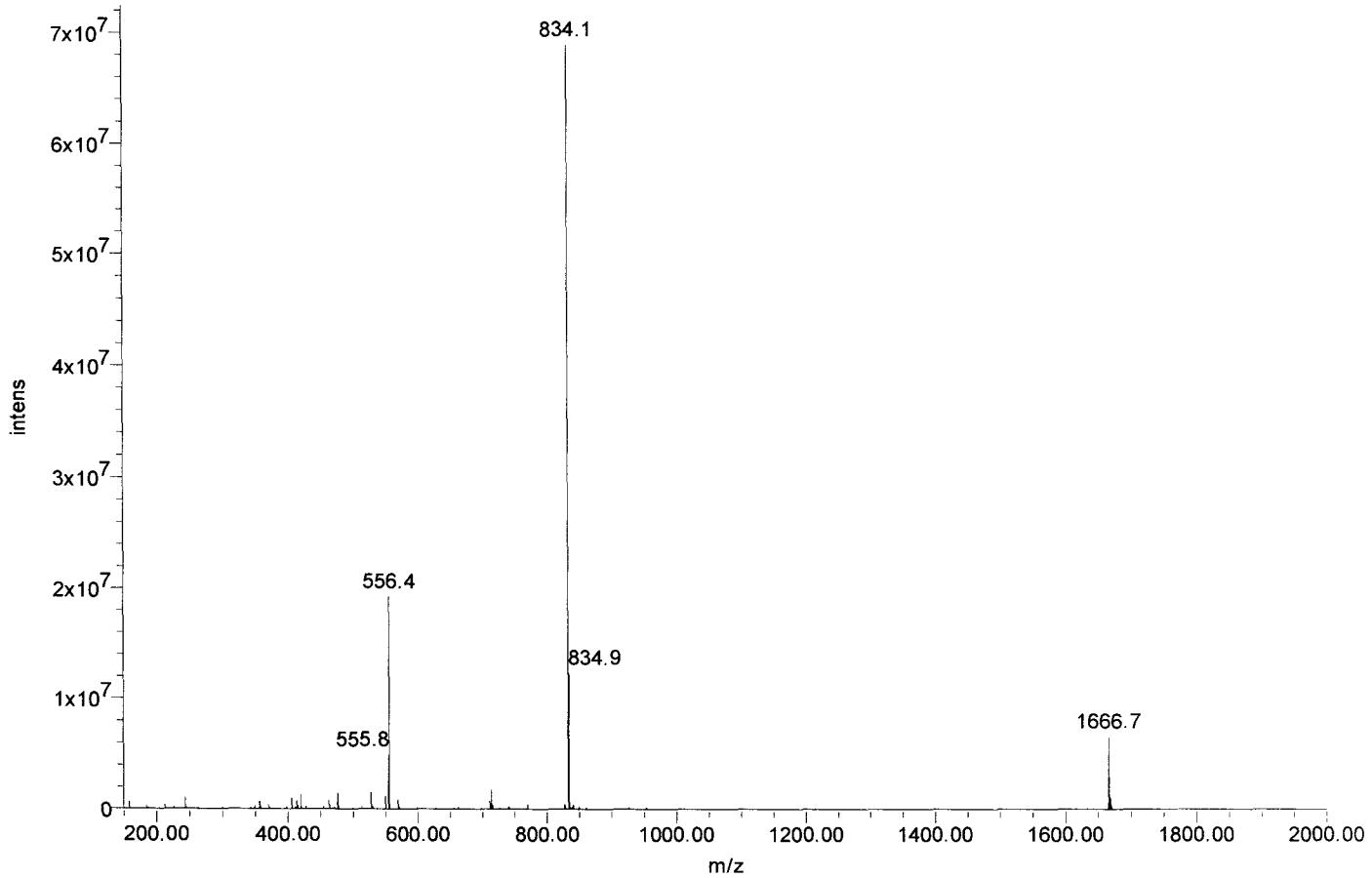


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.9	10.203	99259	11791
2	95.7	10.490	11085800	981821
3	3.0	11.024	343998	25563
4	0.5	11.869	52850	5535
Sum	100.00		11581908	1024710.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344886      **Lot # :** SW05131T      **Chemist :** Yan Li

Date Acquired : 5/21/2008 12:48:57 CST  
Expected MS : MW: 1666.1  
Acq. Method Set : Import  
Processing Method : 344886\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #147  
EAIVIWGQVPKFHLP  
Cat#5856 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344887                   **Lot #:** SW05120T  
**Sequence:** Glu-Ala-Ile-Val-Ile-Trp-Gly-Gln-Val-Pro-Lys-Phe-His-Leu-Pro  
**Molecular Weight:** 1734.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Ile	2.00	1.52	*1	Pro	2.00	2.10	
Glx	2.00	1.96		Leu	1.00	1.09		Trp	1.00	0.00	*2
Gly	1.00	0.97		Lys	1.00	0.97		Val	2.00	1.61	*1
His	1.00	0.96		Phe	1.00	0.98					

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

\*2 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/22/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

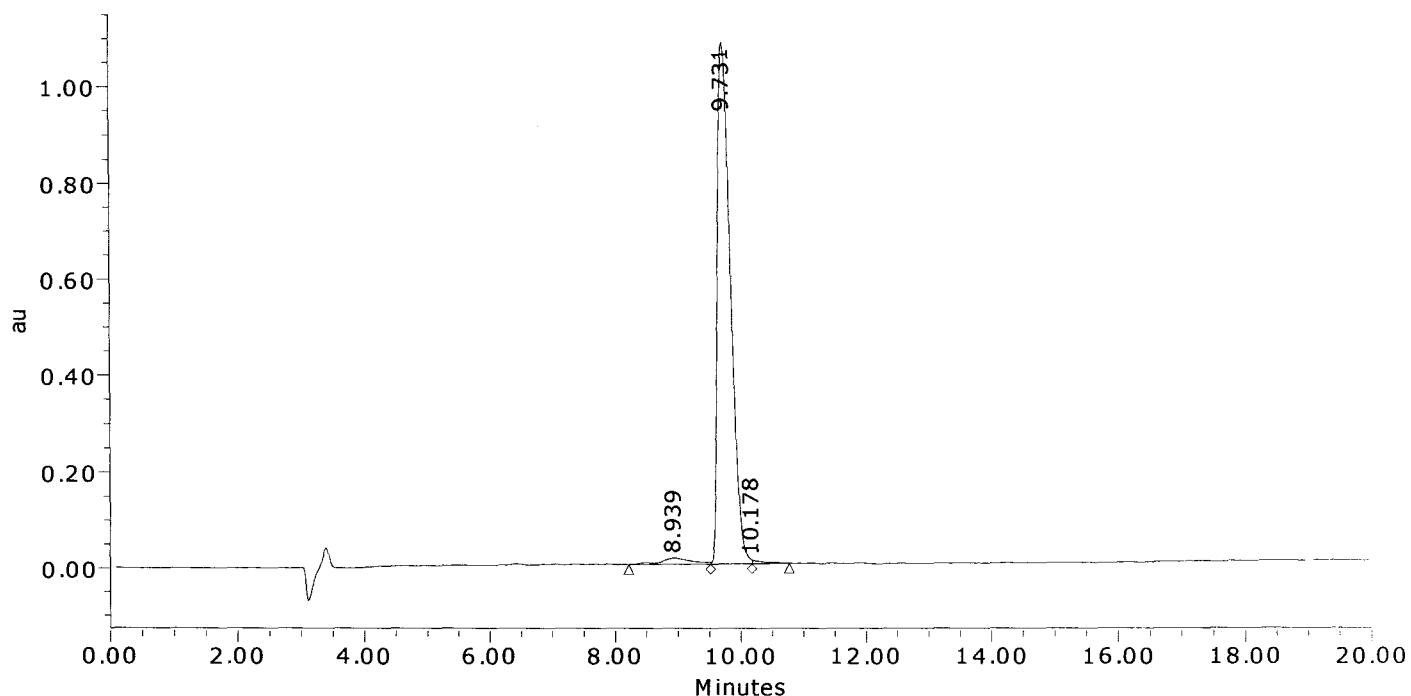
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344887/SW05120T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/20/2008 11:15:30 CST
Sample ID:	344887	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344887_A Final_PDA
Date Acquired:	5/20/2008 10:29:56 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 30% -50% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	2.8	8.939	459133	12773
2	96.5	9.731	15592646	1083511
3	0.7	10.178	105449	8363
<b>Sum</b>	<b>100.00</b>		<b>16157229</b>	<b>1104647.2</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344887**

**Lot # : SW05120T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 13:47:48 CST

Expected MS :

MW: 1734.1

Acq. Method Set :

Import

Processing Method :

344887\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

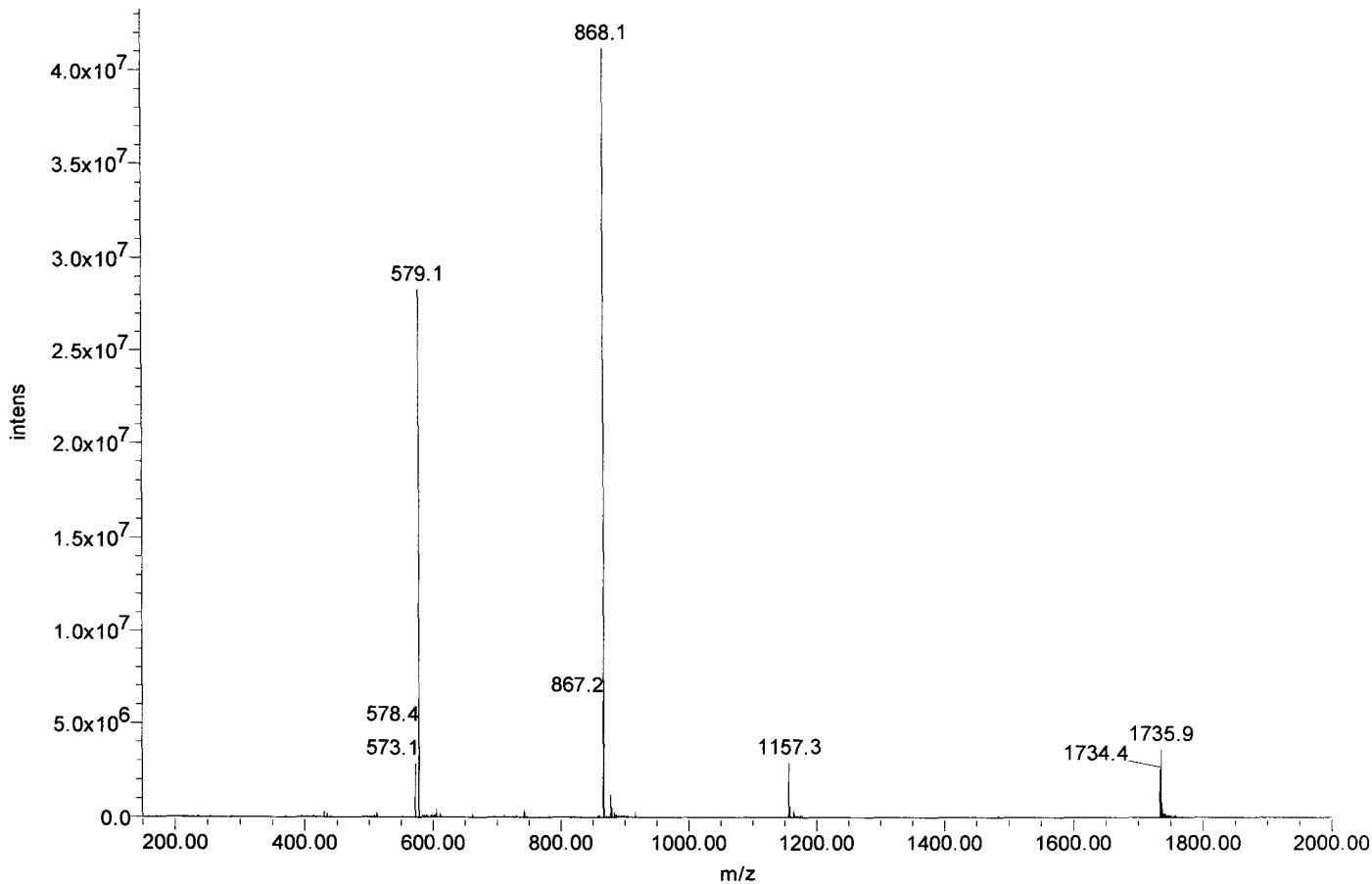
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #148  
IWGQVPKFHI.PVEKD  
Cat#5857 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344888                   **Lot #:** SW05153T

**Sequence:** Ile-Trp-Gly-Gln-Val-Pro-Lys-Phe-His-Leu-Pro-Val-Glu-Lys-Asp

**Molecular Weight:** 1793.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 79.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.02		Ile	1.00	1.02	Pro	2.00	2.11
Glx	2.00	2.00		Leu	1.00	1.08	Trp	1.00	0.00
Gly	1.00	1.06		Lys	2.00	2.04	Val	2.00	1.99
His	1.00	1.02		Phe	1.00	1.05			*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/26/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

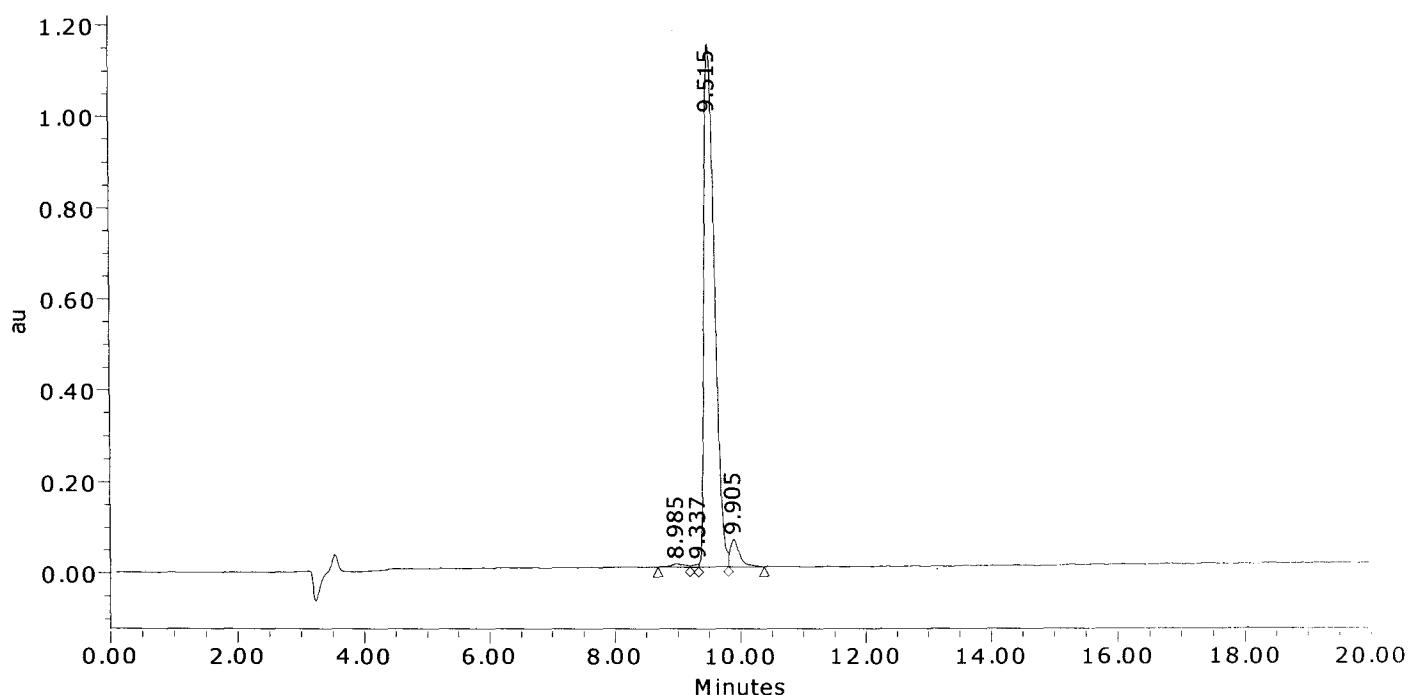
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344888/SW05153T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 12:43:53 CST  
Sample ID: 344888 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344888\_A Final\_PDA  
Date Acquired: 5/22/2008 11:58:05 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

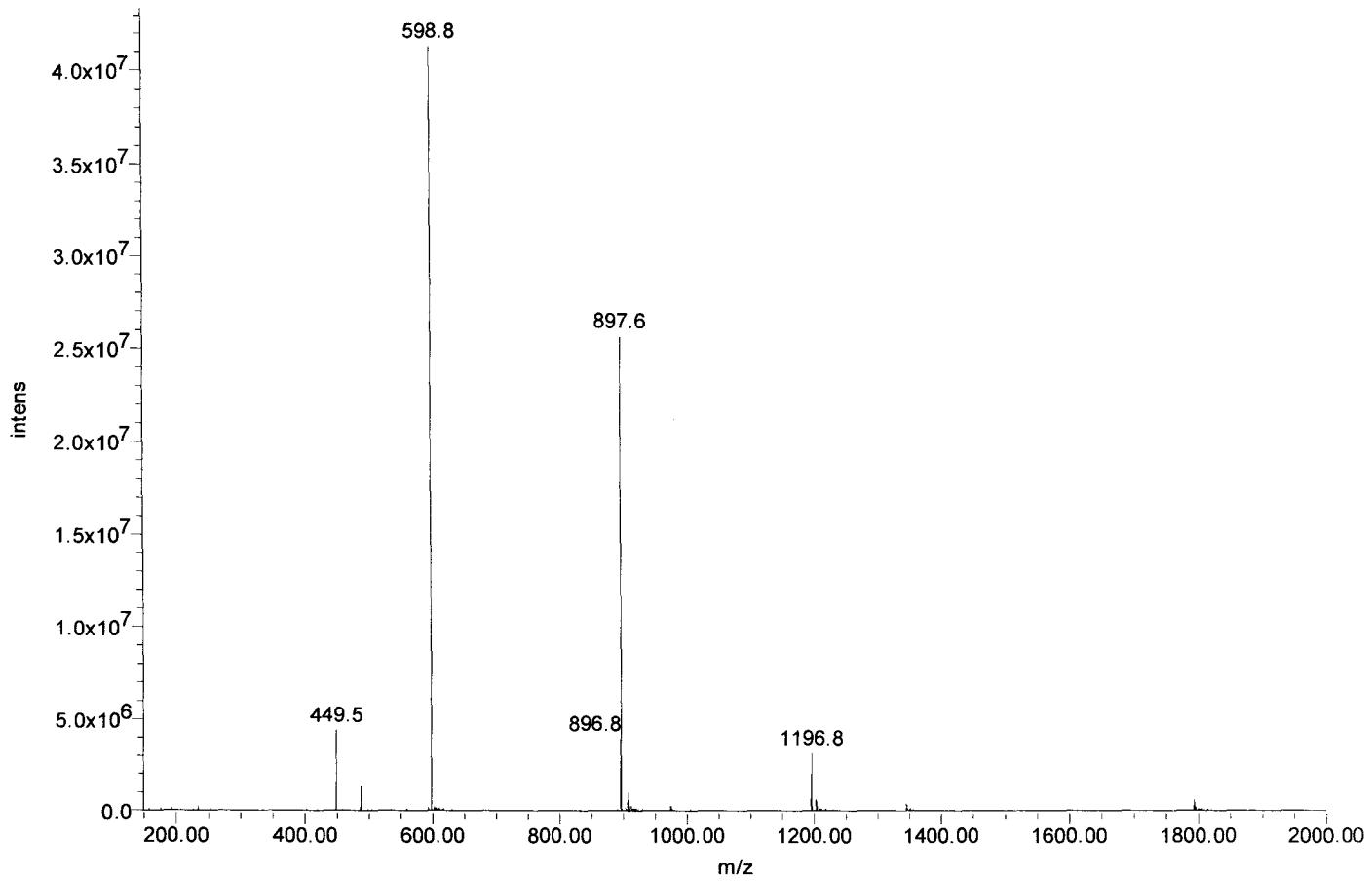


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.7	8.985	100684	6467
2	0.3	9.337	35858	6331
3	94.7	9.515	13320951	1146647
4	4.3	9.905	610361	59174
<b>Sum</b>	<b>100.00</b>		<b>14067854</b>	<b>1218618.7</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344888      **Lot # :** SW05153T      **Chemist :** Yan Li

Date Acquired : 5/22/2008 12:34:40 CST  
Expected MS : MW: 1793.1  
Acq. Method Set : Import  
Processing Method : 344888\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #149  
VPKFHLPVEKDVWEQ  
Cat#5858 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344889                   **Lot #:** SW05134T

**Sequence:** Val-Pro-Lys-Phe-His-Leu-Pro-Val-Glu-Lys-Asp-Val-Trp-Glu-Gln

**Molecular Weight:** 1851.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 90.3%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.4%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.07		Leu	1.00	1.14		Pro	2.00	1.76	
Glx	3.00	3.03		Lys	2.00	2.00		Trp	1.00	0.00	*1
His	1.00	1.00		Phe	1.00	1.00		Val	3.00	3.00	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/25/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

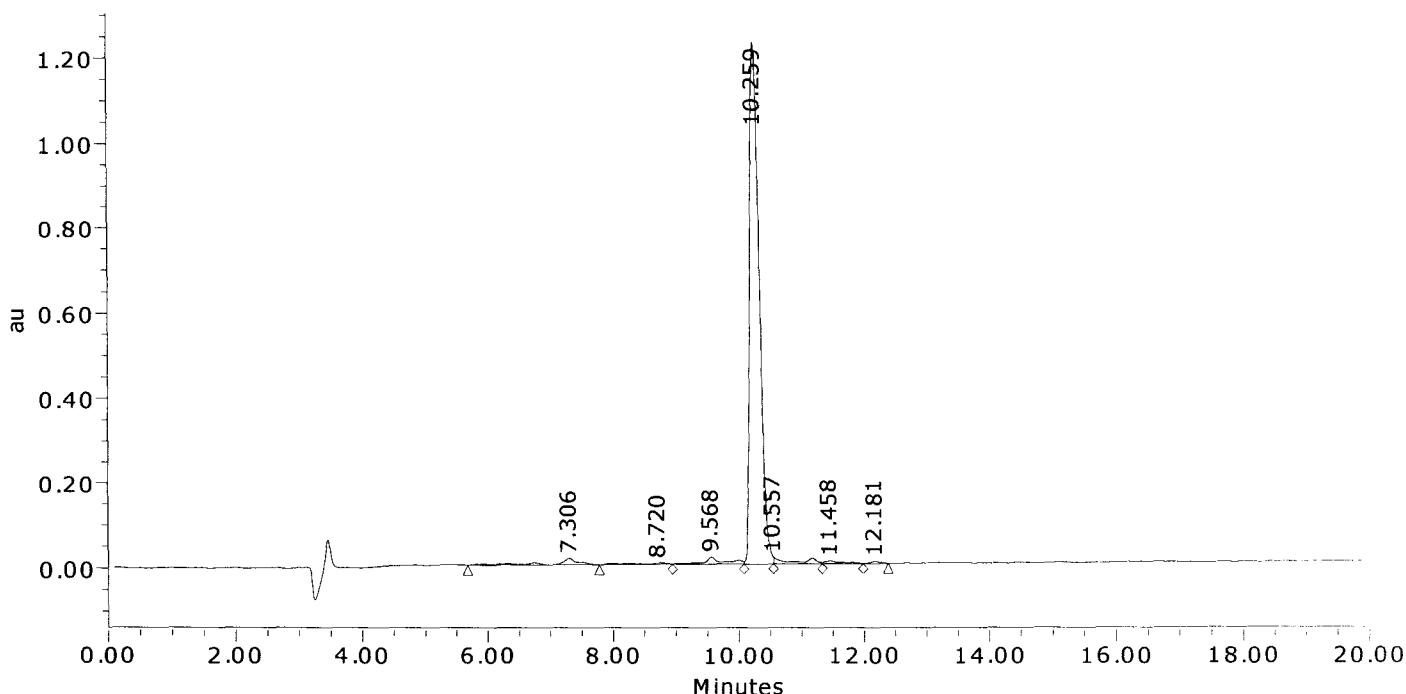
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344889/SW05134T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/21/2008 12:54:55 CST  
Sample ID: 344889 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344889\_A Final\_PDA  
Date Acquired: 5/21/2008 12:09:50 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	2.8	7.306	398032	14831
2	0.9	8.720	136376	4303
3	2.6	9.568	380836	17123
4	90.3	10.259	13048277	1227563
5	2.2	10.557	320396	15393
6	0.8	11.458	117975	5902
7	0.4	12.181	53007	5655
<b>Sum</b>	<b>100.00</b>		<b>14454900</b>	<b>1290769.6</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344889

Lot # : SW05134T

Chemist : Yan Li

Date Acquired :

5/21/2008 12:09:50 CST

Expected MS :

MW: 1851.2

Acq. Method Set :

Import

Processing Method :

344889\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

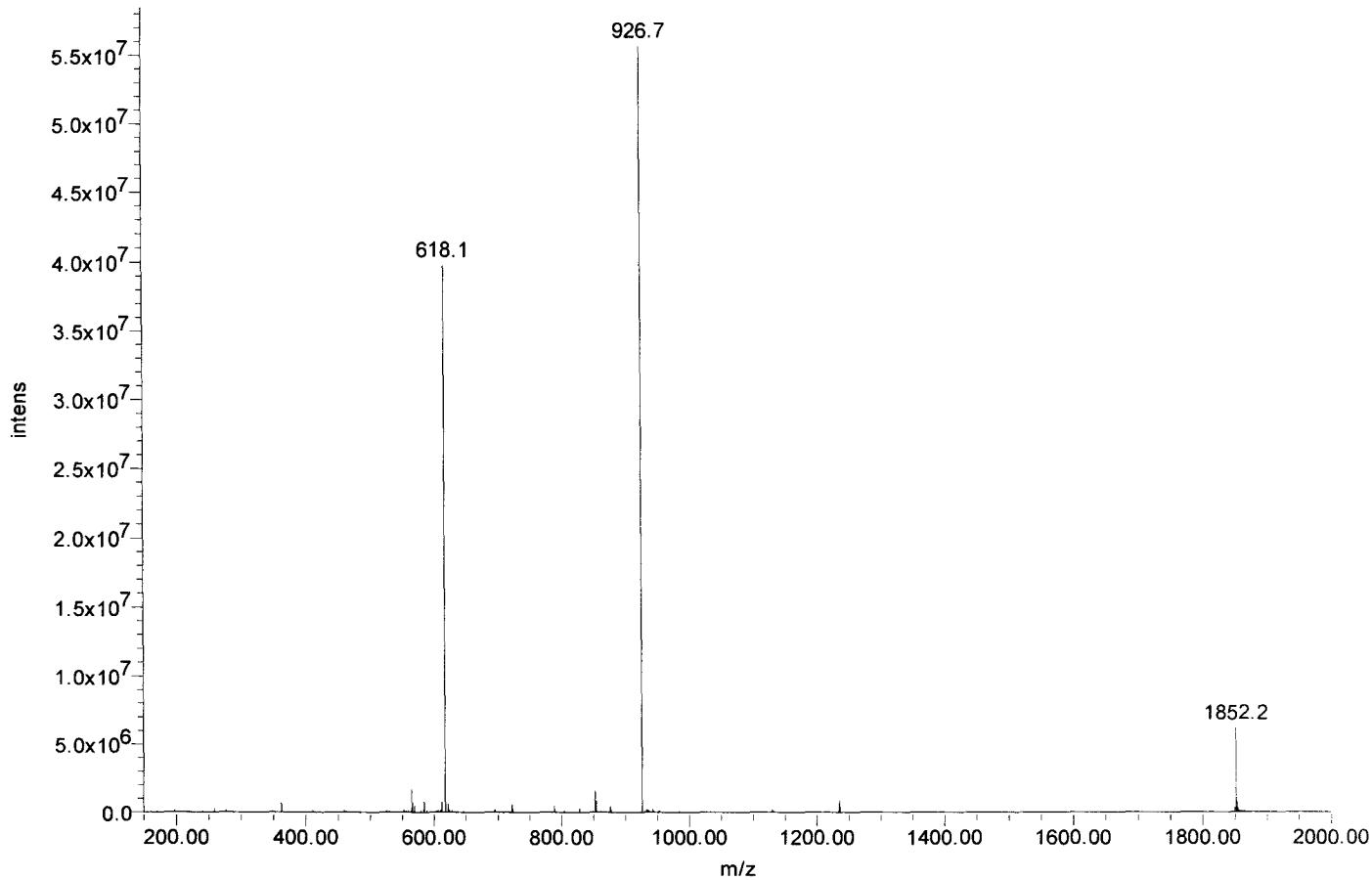
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #150  
HLPVFKDVWEQWWTD  
Cat#5859 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344890                   **Lot #:** SW05126T

**Sequence:** His-Leu-Pro-Val-Glu-Lys-Asp-Val-Trp-Glu-Gln-Trp-Trp-Thr-Asp

**Molecular Weight:** 1968.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00	Leu	1.00	1.15		Thr	1.00	1.05
Glx	3.00	2.97	Lys	1.00	1.02		Trp	3.00	0.00
His	1.00	1.02	Pro	1.00	0.89		Val	2.00	*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

*Yanz Li*  
Quality Control Department

Date: 05/22/08

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777 E. Evelyn Avenue  
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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

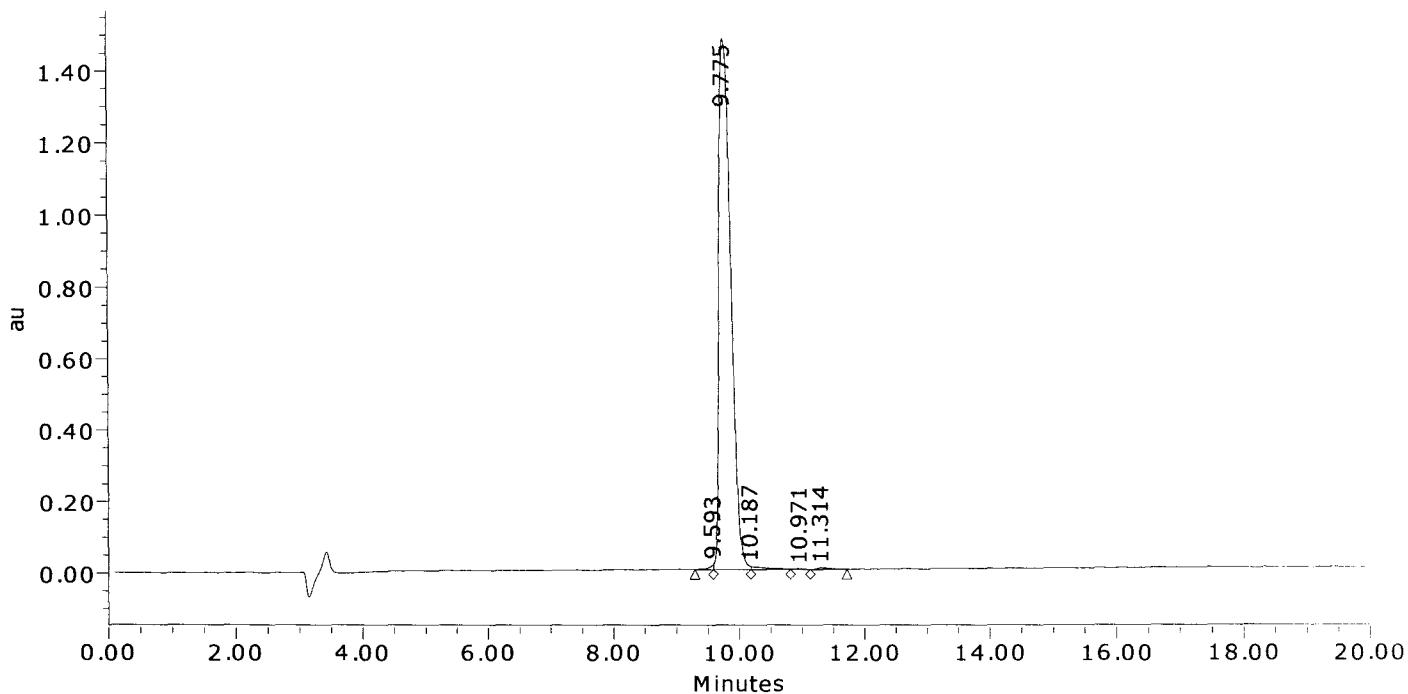
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344890/SW05126T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 15:31:40 CST  
Sample ID: 344890 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344890\_A Final\_PDA  
Date Acquired: 5/20/2008 14:38:07 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.3	9.593	59904	15290
2	98.7	9.775	19481052	1478476
3	0.6	10.187	123974	8314
4	0.1	10.971	21167	1929
5	0.3	11.314	60825	4662
Sum	100.00		19746921	1508671.4

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344890

Lot # : SW05126T

Chemist : Yan Li

Date Acquired :

5/20/2008 14:38:07 CST

Expected MS :

MW: 1968.2

Acq. Method Set :

Import

Processing Method :

344890\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

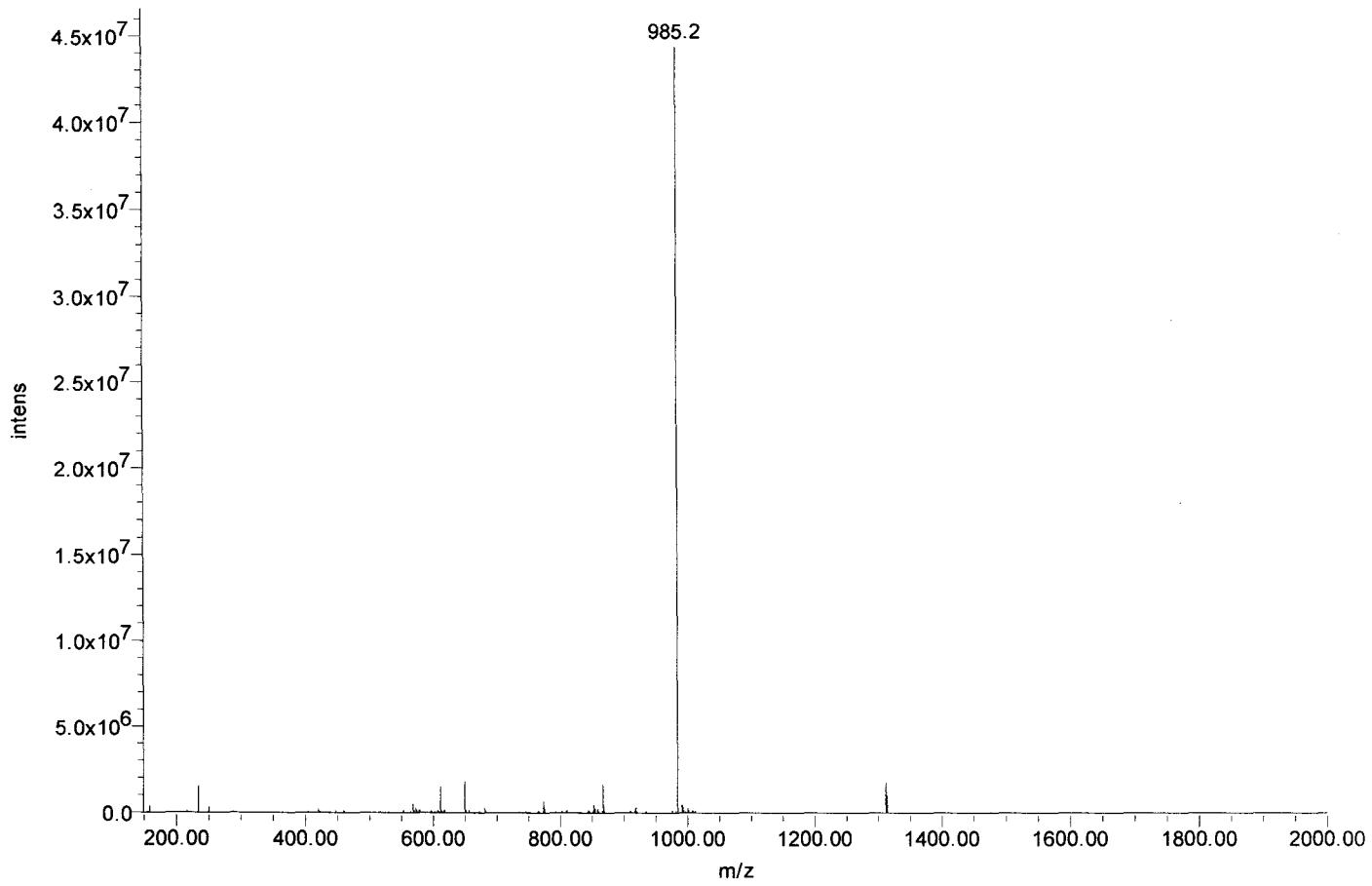
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #151  
EKDVWEQWWIDYWQV  
Cat#5860 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344891                   **Lot #:** SW05128T  
**Sequence:** Glu-Lys-Asp-Val-Trp-Glu-Gln-Trp-Trp-Thr-Asp-Tyr-Trp-Gln-Val  
**Molecular Weight:** 2098.3 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 88.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/20/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	1.97		Thr	1.00	1.04		Tyr	1.00	1.14	
Glx	4.00	3.86		Trp	4.00	0.00	*1	Val	2.00	2.20	
Lys	1.00	1.00									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/22/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

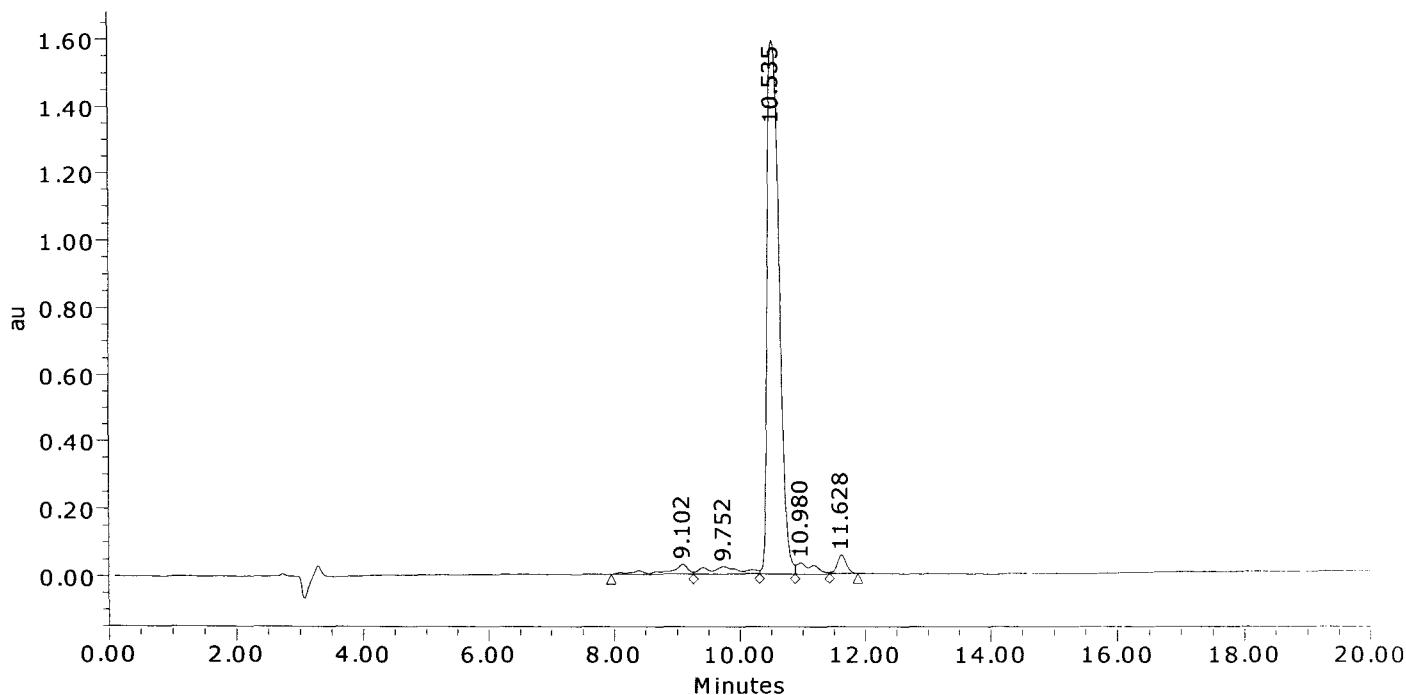
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344891/SW05128T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 16:50:01 CST  
Sample ID: 344891 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344891\_A Final\_PDA  
Date Acquired: 5/20/2008 15:23:15 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 33% -53% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



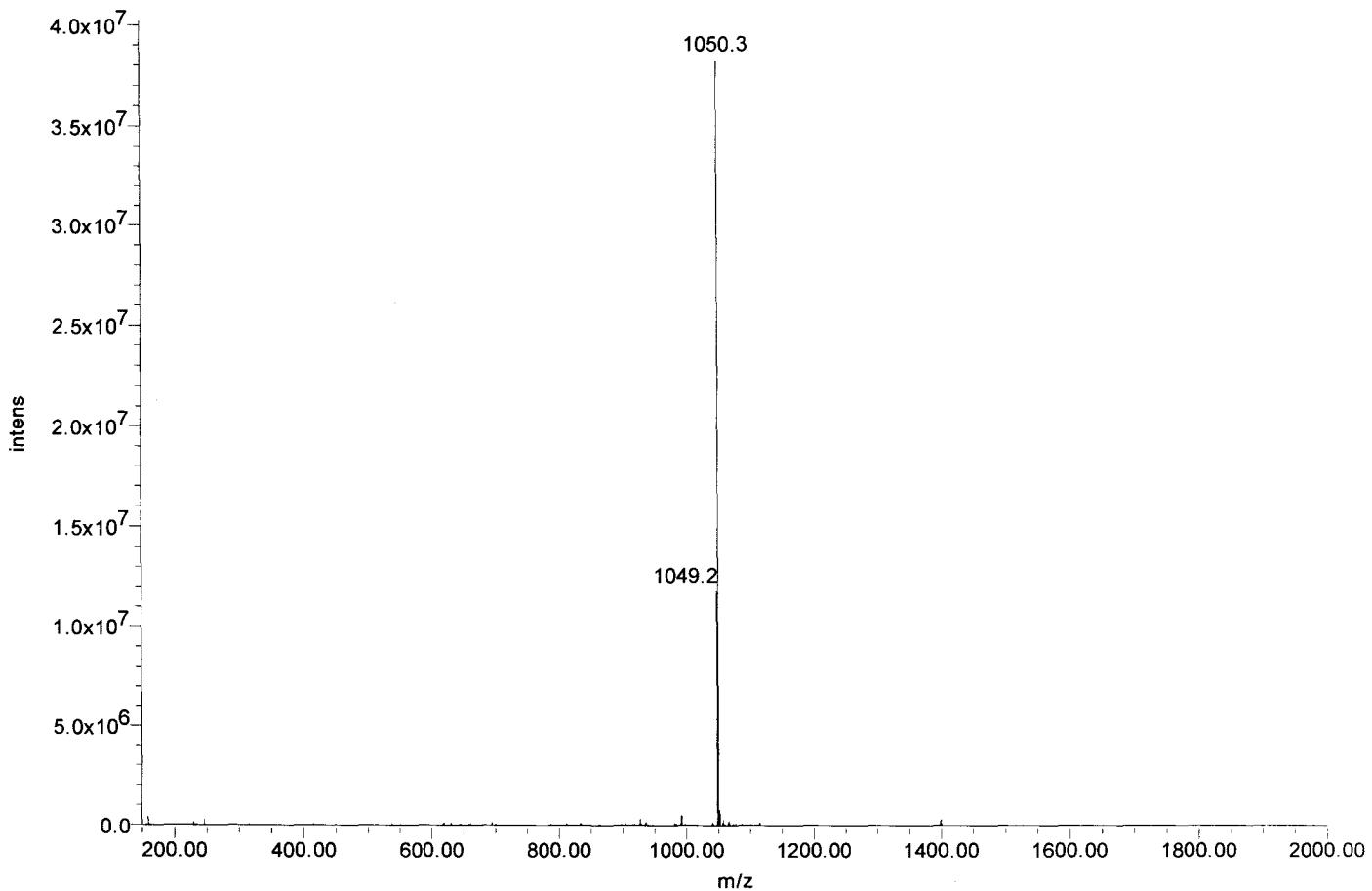
	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.9	9.102	689708	29552
2	3.6	9.752	844753	22897
3	88.6	10.535	21079582	1590462
4	2.6	10.980	625525	32508
5	2.3	11.628	553225	54954
Sum	100.00		23792793	1730373.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID: 344891 Lot #: SW05128T Chemist : Yan Li

Date Acquired : 5/20/2008 15:23:15 CST  
Expected MS : MW: 2098.3  
Acq. Method Set : Import  
Processing Method : 344891\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #152  
WEQWWTDYWQVTWIP  
Cat#5861 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344892                   **Lot #:** SW06017T  
**Sequence:** Trp-Glu-Gln-Trp-Trp-Thr-Asp-Tyr-Trp-Gln-Val-Thr-Trp-Ile-Pro  
**Molecular Weight:** 2124.4 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 80.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 30% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 88.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/04/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.04		Pro	1.00	1.00		Tyr	1.00	0.99	
Glx	3.00	3.37		Thr	2.00	2.07		Val	1.00	1.01	
Ile	1.00	0.85		Trp	5.00	0.00	*1				

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yanz Li'.

Date: 06/05/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-723-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

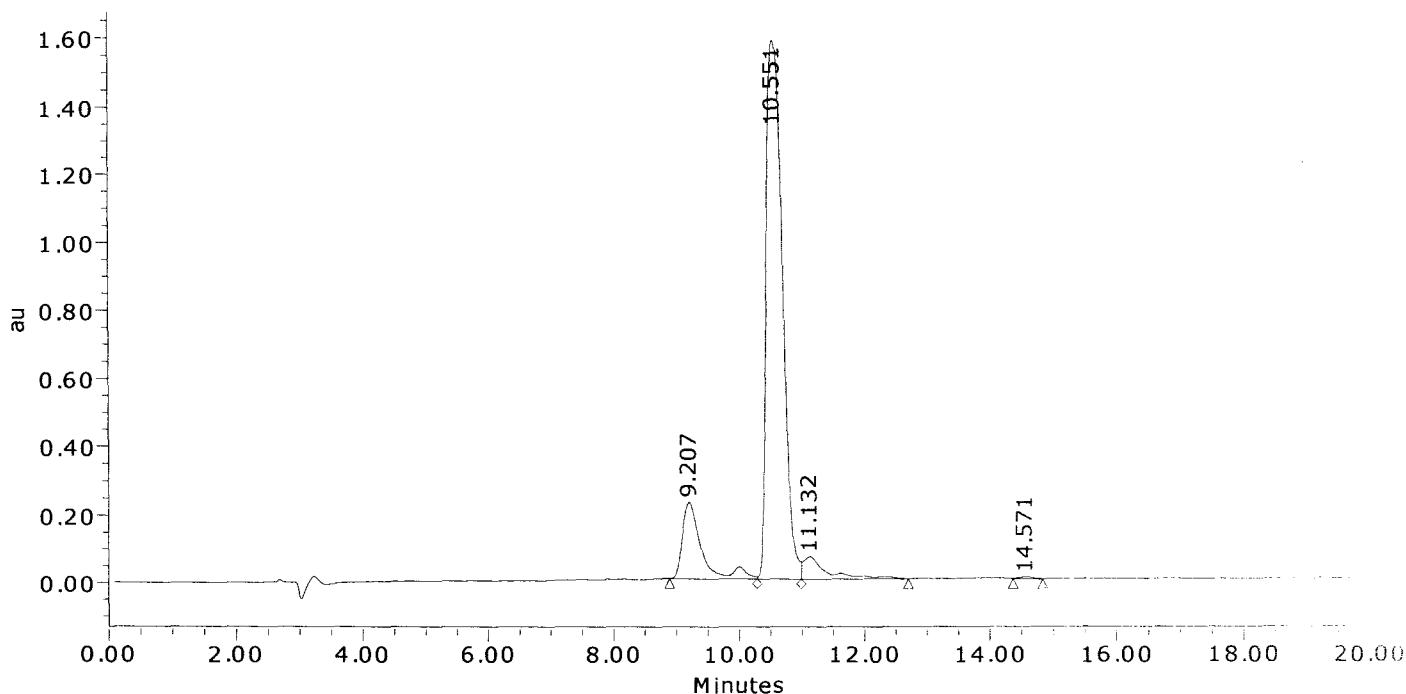
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344892/SW06017T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/5/2008 10:26:36 CST  
Sample ID: 344892 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344892\_A Final\_PDA  
Date Acquired: 6/5/2008 9:45:56 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 36% -56% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	14.0	9.207	4895453	226767
2	80.9	10.551	28320049	1579471
3	4.9	11.132	1713641	65921
4	0.2	14.571	62554	4674
Sum	100.00		34991696	1876833.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344892**

**Lot # : SW06017T**

**Chemist : Yan Li**

Date Acquired :

6/5/2008 9:45:56 CST

Expected MS :

MW: 2124.4

Acq. Method Set :

Import

Processing Method :

344892\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

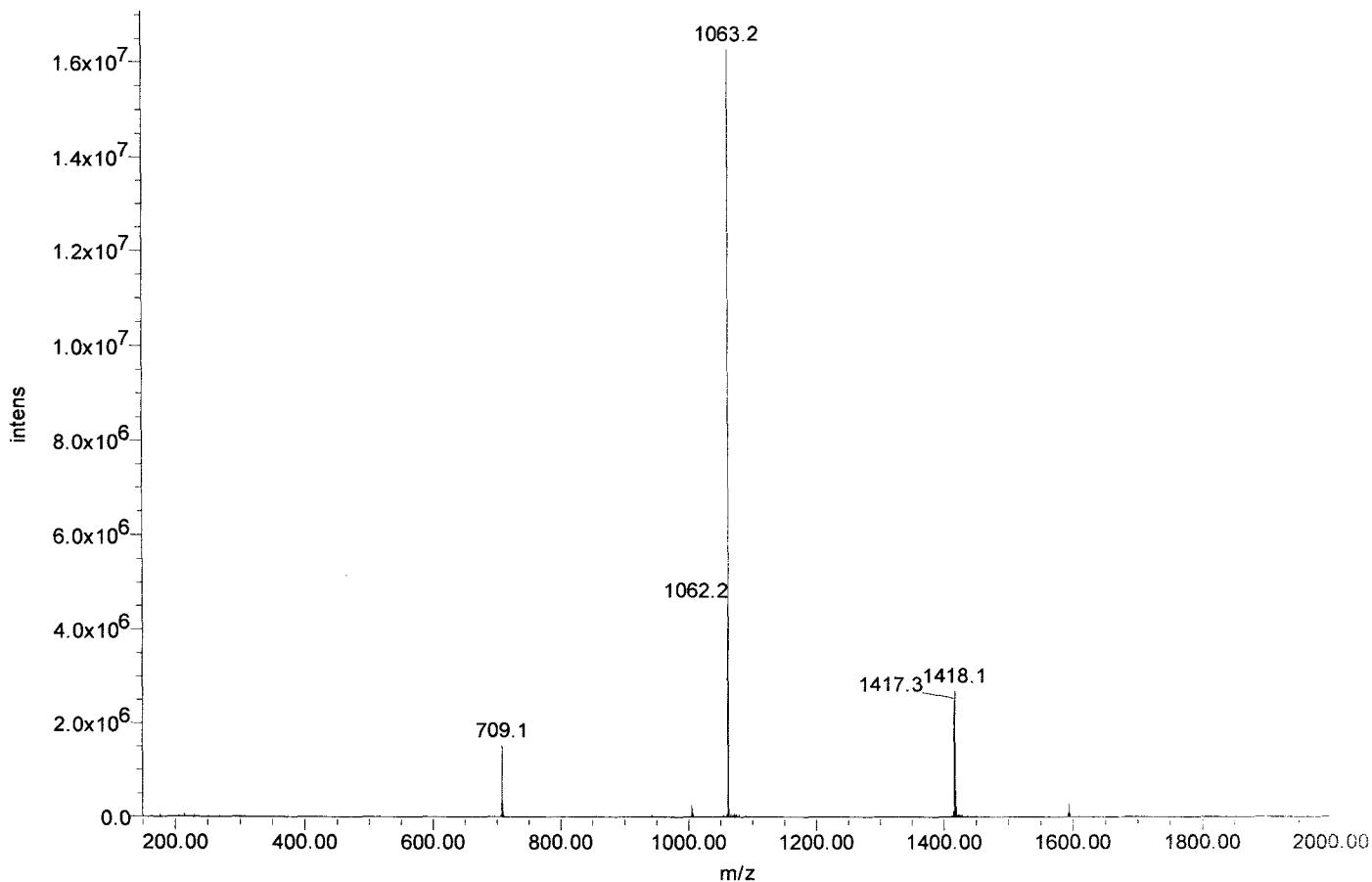
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #153  
WTIDYWQVTWIPEWDF  
Cat#5862 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344893                   **Lot #:** SW05178T  
**Sequence:** Trp-Thr-Asp-Tyr-Trp-Gln-Val-Thr-Trp-Ile-Pro-Glu-Trp-Asp-Phe  
**Molecular Weight:** 2072.3 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 89.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 89.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/23/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		Phe	1.00	0.97		Trp	4.00	0.00	*1
Glx	2.00	2.21		Pro	1.00	0.95		Tyr	1.00	0.95	
Ile	1.00	0.96		Thr	2.00	1.99		Val	1.00	1.00	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/28/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

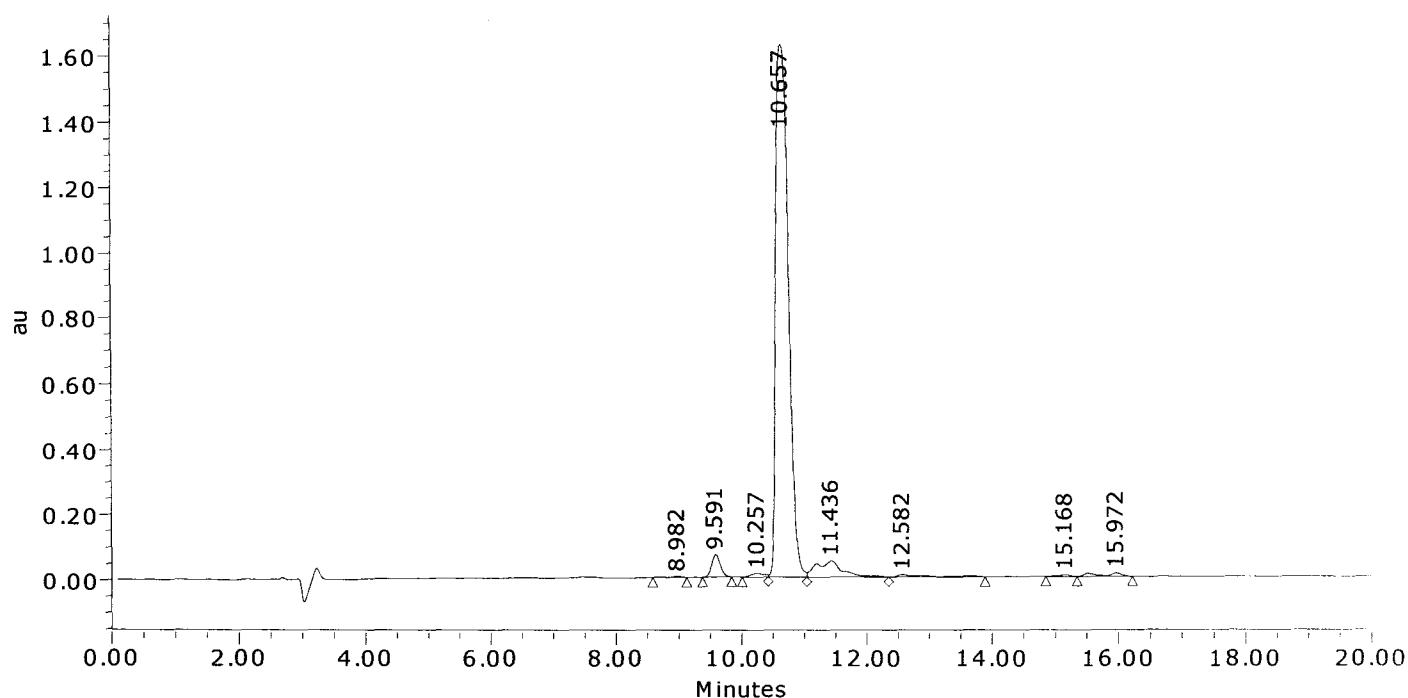
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344893/SW05178T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 13:43:17 CST  
Sample ID: 344893 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344893\_A\_Final\_PDA  
Date Acquired: 5/23/2008 12:55:02 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 36% -56% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.2	8.982	46345	3180
2	2.5	9.591	655315	68907
3	0.6	10.257	155803	10418
4	89.2	10.657	22941537	1626092
5	5.5	11.436	1408262	48115
6	0.9	12.582	222130	6286
7	0.3	15.168	65810	5084
8	0.9	15.972	237610	10441
Sum	100.00		25732812	1778523.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344893**

**Lot # : SW05178T**

**Chemist : Yan Li**

Date Acquired :

5/23/2008 16:06:00 CST

Expected MS :

MW: 2072.3

Acq. Method Set :

Import

Processing Method :

344893\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

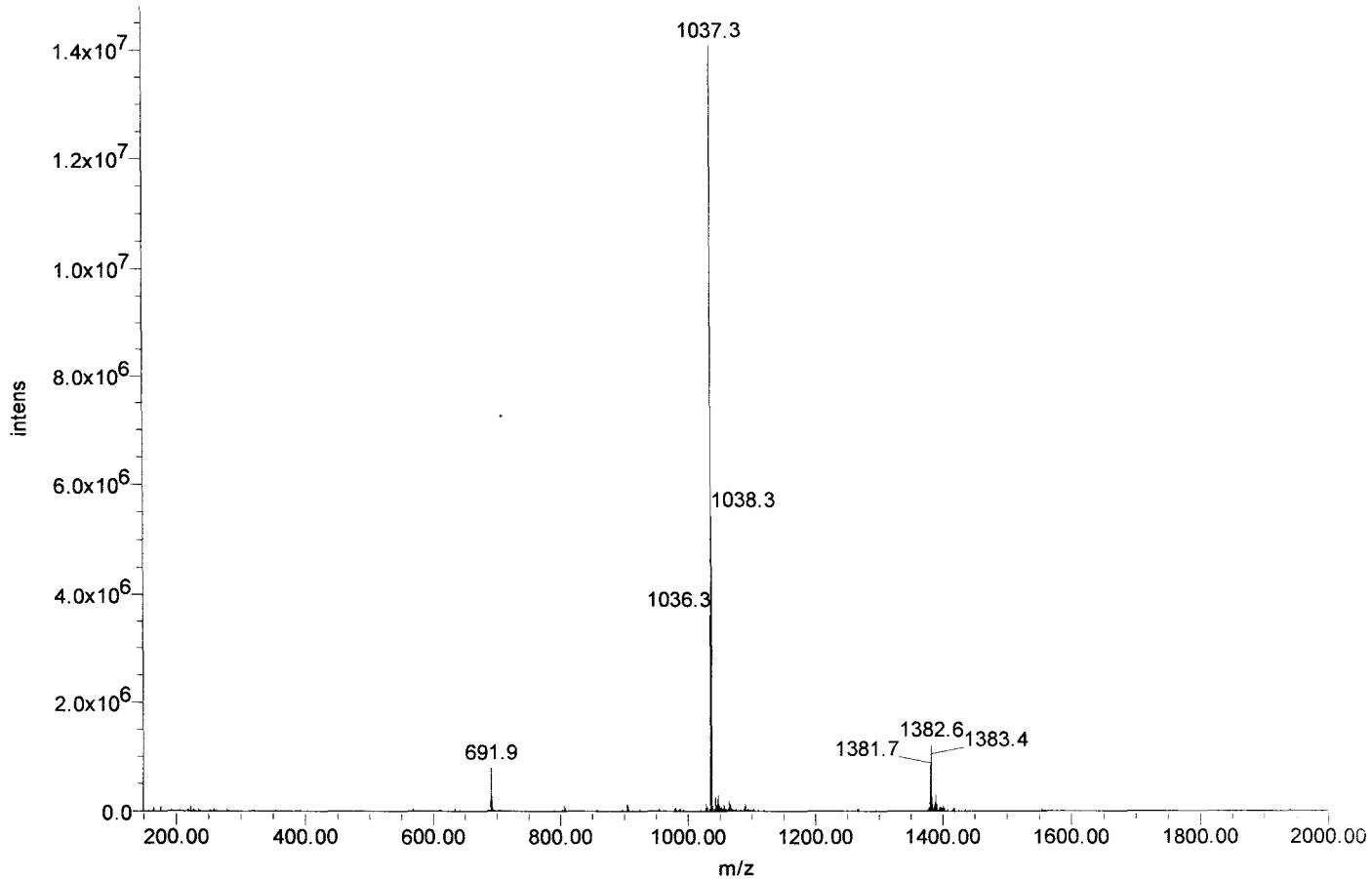
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #154  
WQVTWIPEWDFISTP  
Cat#5863 Lot#080132  
Net Wt. 1mg

**Product #:** 344894                   **Lot #:** SW06008T

**Sequence:** Trp - Gln - Val - Thr - Trp - Ile - Pro - Glu - Trp - Asp - Phe - Ile - Ser - Thr - Pro

**Molecular Weight:** 1905.2 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 80.3 %  
(see attached RP-HPLC chromatogram)

**Appearance:** White lyophilized powder

**Peptide Content:** 76.7 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 06/03/08

**Cert. of Analysis Remarks:** Solubility: 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Asx	1.00	1.05		Phe	1.00	1.00		Thr	2.00	1.83	
Glx	2.00	2.09		Pro	2.00	2.17		Trp	3.00	0.00	*1
Ile	2.00	2.09		Ser	1.00	0.82		Val	1.00	1.05	

**Remarks:** \*1 Trp was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:**

*Shriya Patel*

Date: 06/10/08

Quality Control Department

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1-2-1 Kubogaoka

Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

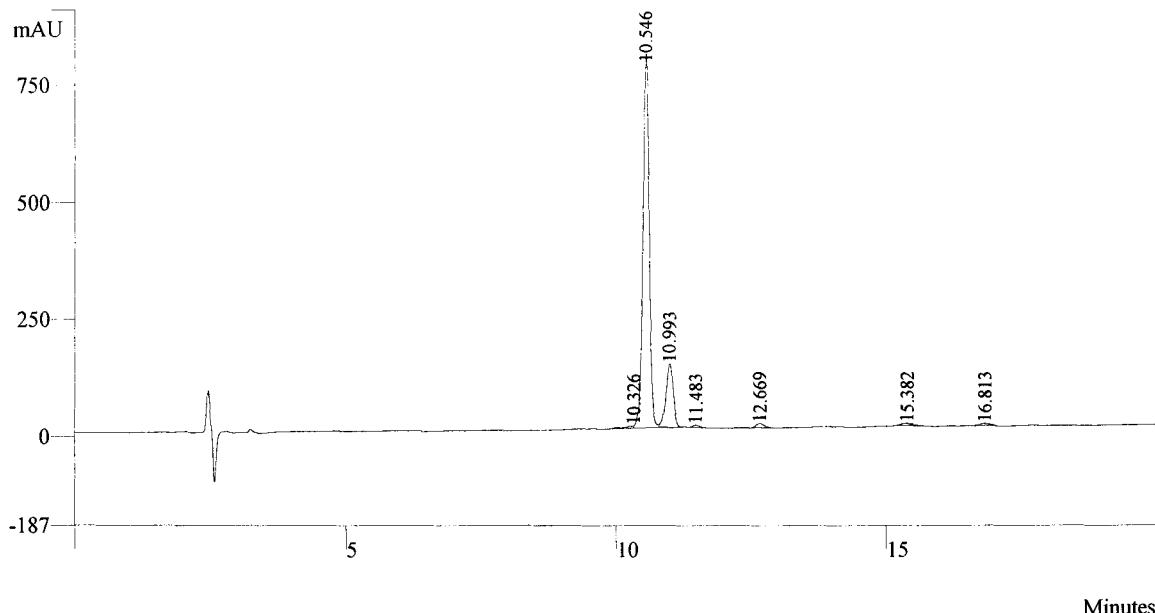
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344894 / SW06008T

Data File: c:\star\data\344894\sw06008t001.run  
Channel: 1 = UV RESULTS  
Sample ID: SW06008T  
Instrument (Inj): Left Side System  
Injection Date: 06/09/2008 12:44:06  
Injection Method: c:\star\methods\left side method.mth  
Run Time (min): 20.000  
Calc Date: 06/09/2008 01:12:03  
Times Calculated: 8  
Calculation Method: sw06008t001-1.mth  
Run Mode: Analysis  
Peak Measurement: Peak Area  
Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.2 ml/min; Buffer A: 0.1% TFA in Water; Buffer B: 0.1% TFA in Acetonitrile; Temp.: Column: Discovery C18, 4.6 mm x 250 mm, 5 micron; Gradient (Linear): 30%-50% buffer B in 20 min.; Inj. Vol.: 20 ul  
Analyst: Shilpa Patel,



Peak No	Result (%)	Ret Time (min)	Peak Area (counts)	Peak Height (counts)
1	0.7	10.326	59398	4916
2	80.3	10.546	6501411	798079
3	15.9	10.993	1288896	136223
4	0.5	11.483	38775	4803
5	1.1	12.669	88317	9246
6	0.8	15.382	65631	4211
7	0.6	16.813	49244	3947
	<b>99.9</b>		<b>8091672</b>	<b>961425</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344894**

**Lot # : SW06008T**

**Chemist : Yan Li**

Date Acquired :

6/3/2008 10:20:30 CST

Expected MS :

MW: 1905.2

Acq. Method Set :

Import

Processing Method :

344894\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

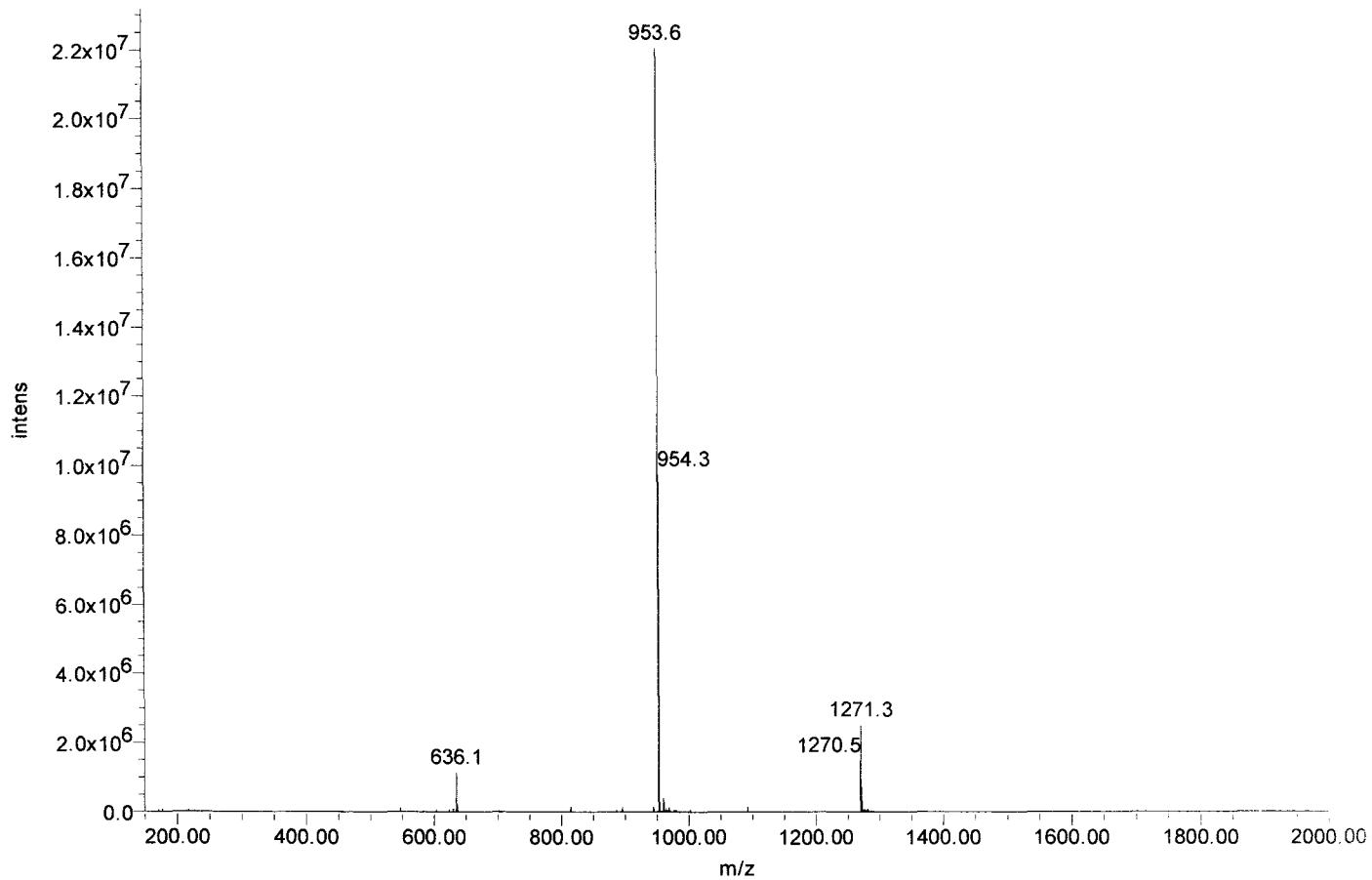
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #155  
WIPEWDFISTPPLVR  
Cat#5864 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344895                   **Lot #:** SW05149T

**Sequence:** Trp-Ile-Pro-Glu-Trp-Asp-Phe-Ile-Ser-Thr-Pro-Pro-Leu-Val-Arg

**Molecular Weight:** 1856.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.4%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.10		Leu	1.00	1.15	Thr	1.00	1.00
Asx	1.00	1.07		Phe	1.00	1.14	Trp	2.00	0.00
Glx	1.00	0.90		Pro	3.00	3.43	Val	1.00	1.12
Ile	2.00	2.09		Ser	1.00	0.81			*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_ Yan Li Date: 05/26/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

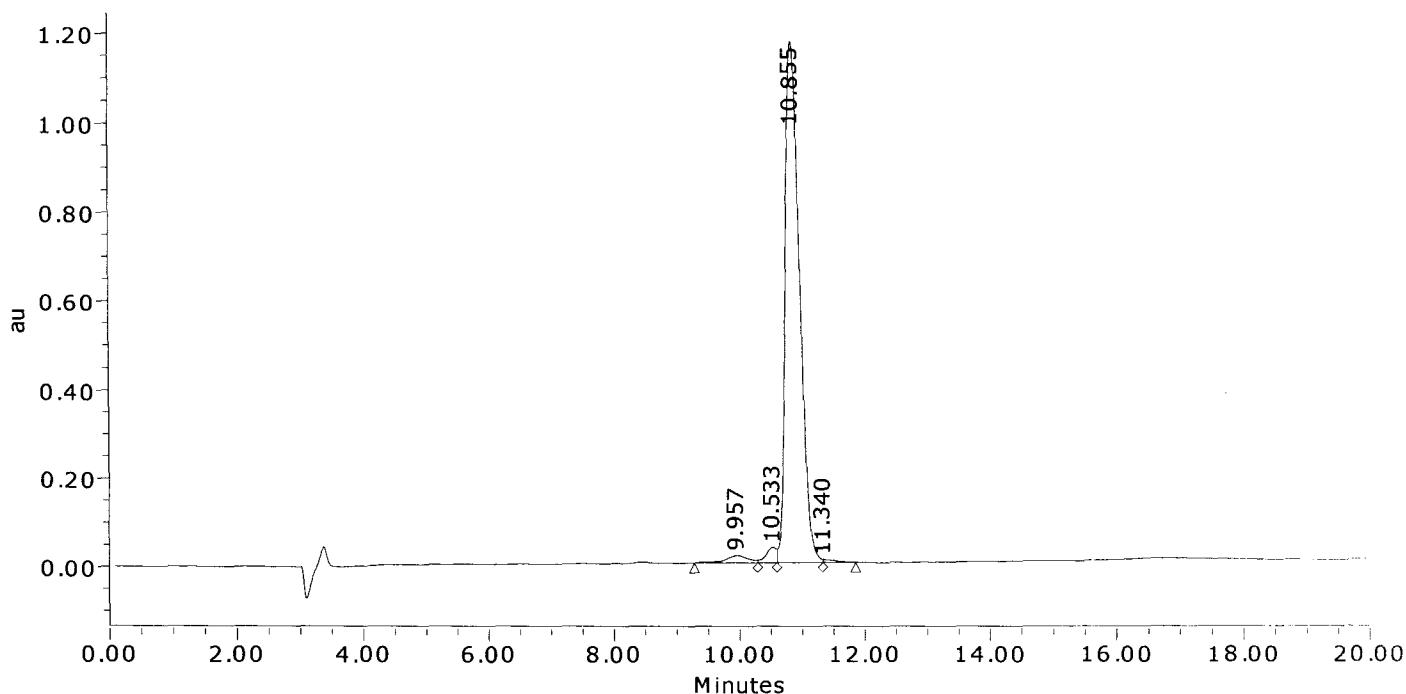
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344895/SW05149T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 11:06:47 CST  
Sample ID: 344895 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344895\_A Final\_PDA  
Date Acquired: 5/21/2008 18:16:46 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



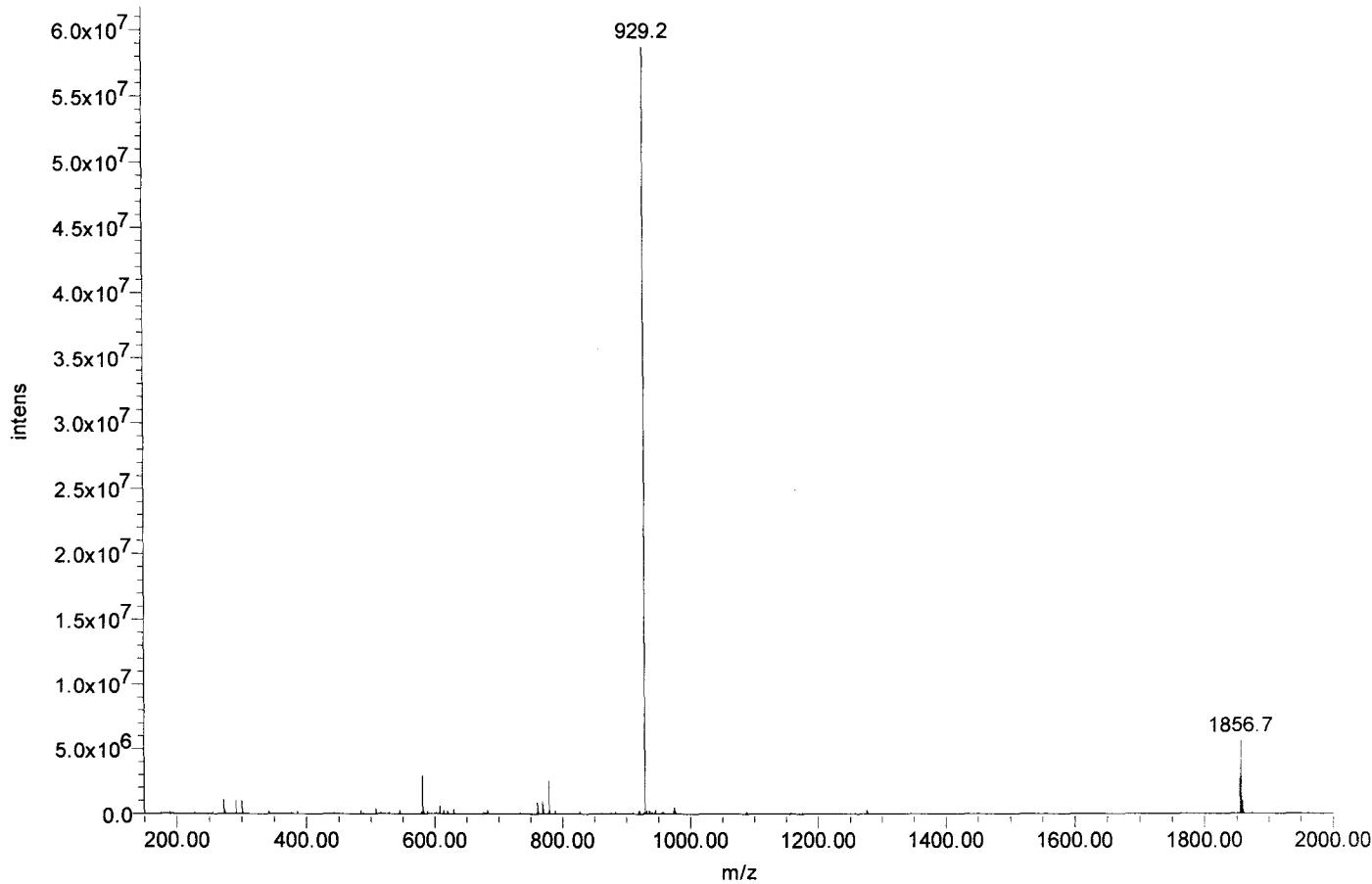
	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	2.1	9.957	420664	17262
2	2.0	10.533	390328	34764
3	95.4	10.855	18672452	1172057
4	0.4	11.340	85856	7243
<b>Sum</b>	<b>100.00</b>		<b>19569300</b>	<b>1231325.3</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID: 344895 Lot #: SW05149T Chemist : Yan Li

Date Acquired : 5/21/2008 18:16:46 CST  
Expected MS : MW: 1856.2  
Acq. Method Set : Import  
Processing Method : 344895\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #156  
WDFISTPPLVRLVFN  
Cat#5865 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344896                   **Lot #:** SW05150T  
**Sequence:** Trp-Asp-Phe-Ile-Ser-Thr-Pro-Pro-Leu-Val-Arg-Leu-Val-Phe-Asn  
**Molecular Weight:** 1804.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 84.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 87.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	
Arg	1.00	1.00		Phe	2.00	1.96		Thr	1.00	0.95
Asx	2.00	1.82		Pro	2.00	2.13		Trp	1.00	0.00
Ile	1.00	0.91		Ser	1.00	0.82		Val	2.00	1.89
Leu	2.00	2.05							*1	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/26/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

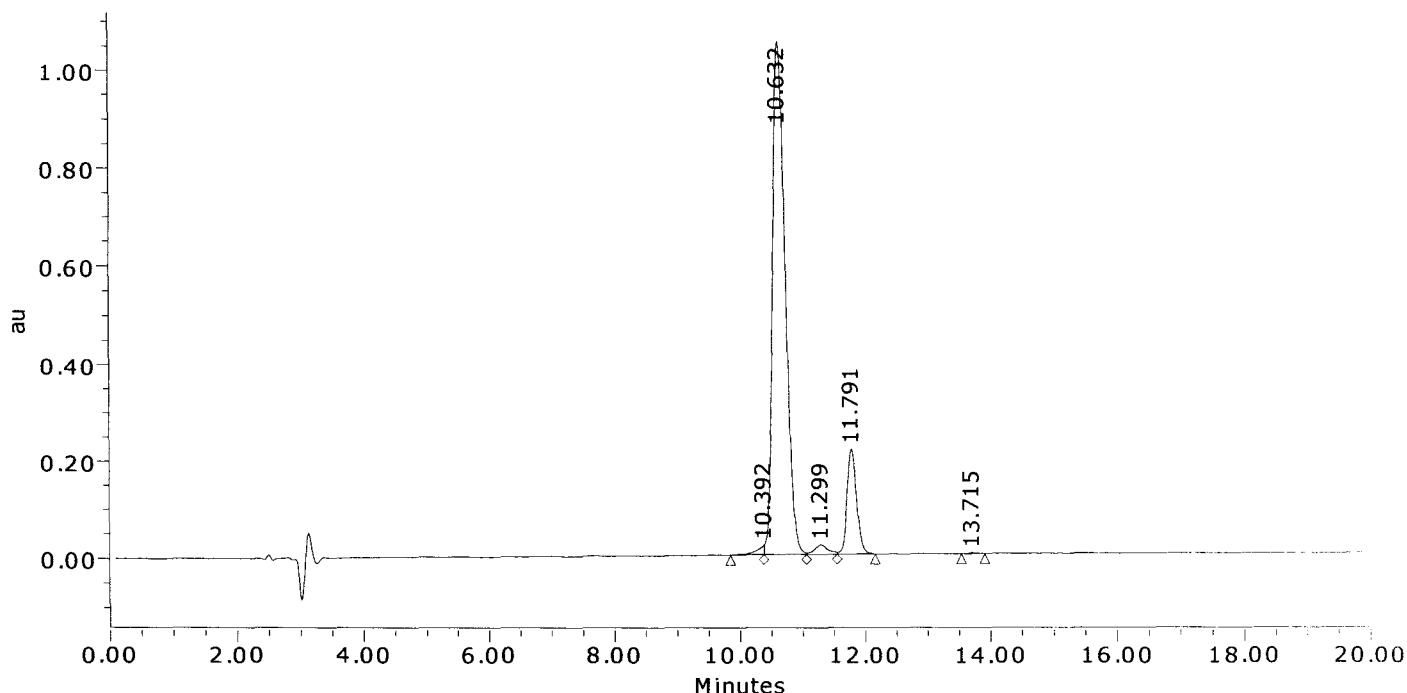
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344896/SW05150T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 11:34:17 CST  
Sample ID: 344896 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344896\_A Final\_PDA  
Date Acquired: 5/22/2008 9:53:05 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 36% -56% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 50C

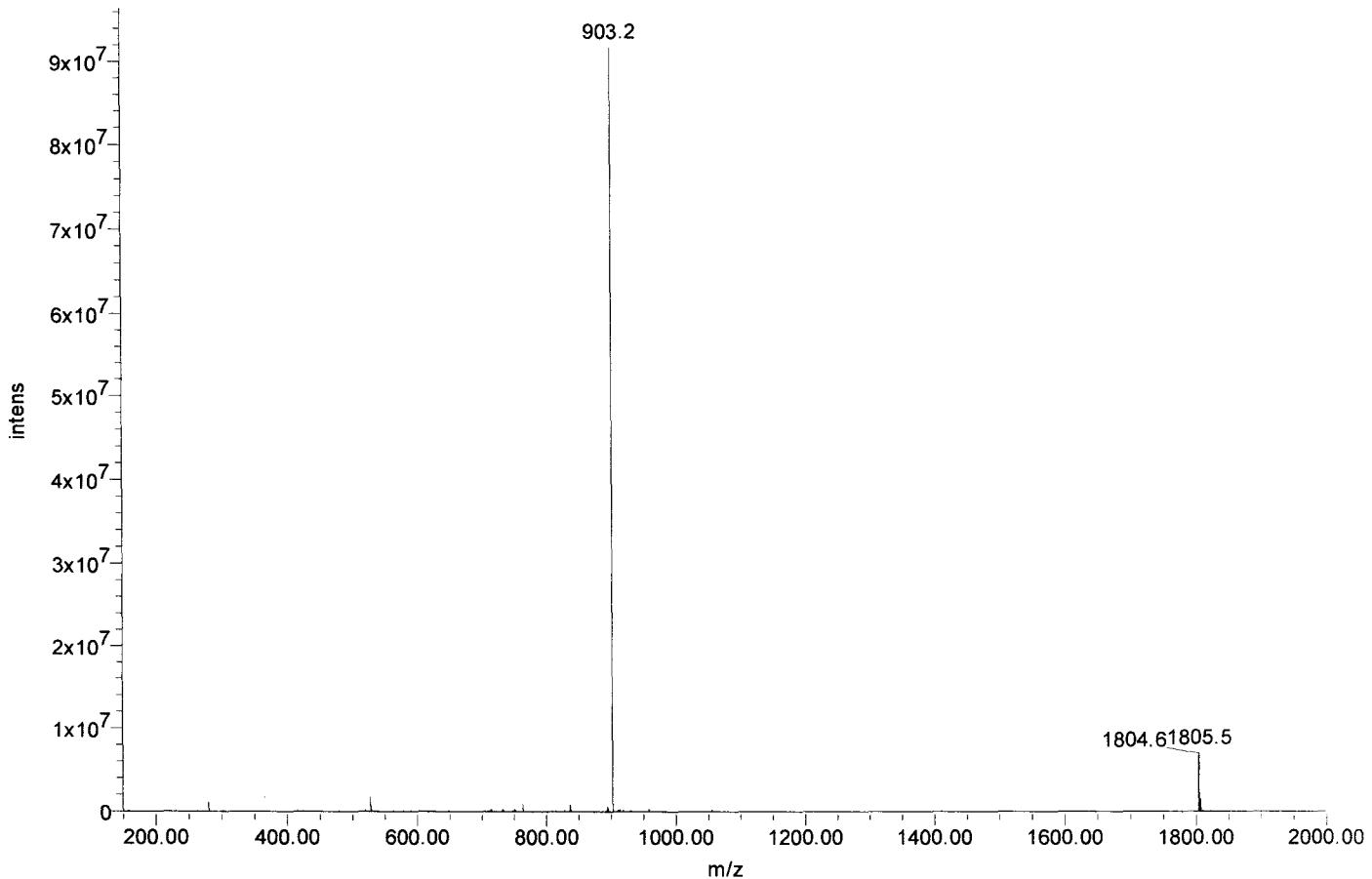


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.9	10.392	159894	19639
2	84.3	10.632	14768251	1051783
3	1.7	11.299	291122	19489
4	13.0	11.791	2278713	216568
5	0.1	13.715	22174	2339
<b>Sum</b>	<b>100.00</b>		<b>17520154</b>	<b>1309819.0</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344896      **Lot # :** SW05150T      **Chemist :** Yan Li

Date Acquired : 5/22/2008 9:53:05 CST  
Expected MS : MW: 1804.1  
Acq. Method Set : Import  
Processing Method : 344896\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #157  
STPPLVRLVFNLVKD  
Cat#5866 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344897                   **Lot #:** SW05138T  
**Sequence:** Ser-Thr-Pro-Pro-Leu-Val-Arg-Leu-Val-Phe-Asn-Leu-Val-Lys-Asp  
**Molecular Weight:** 1698.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.99		Lys	1.00	0.98		Ser	1.00	0.91	
Asx	2.00	2.00		Phe	1.00	1.01		Thr	1.00	1.00	
Leu	3.00	3.19		Pro	2.00	1.88		Val	3.00	2.96	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/25/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

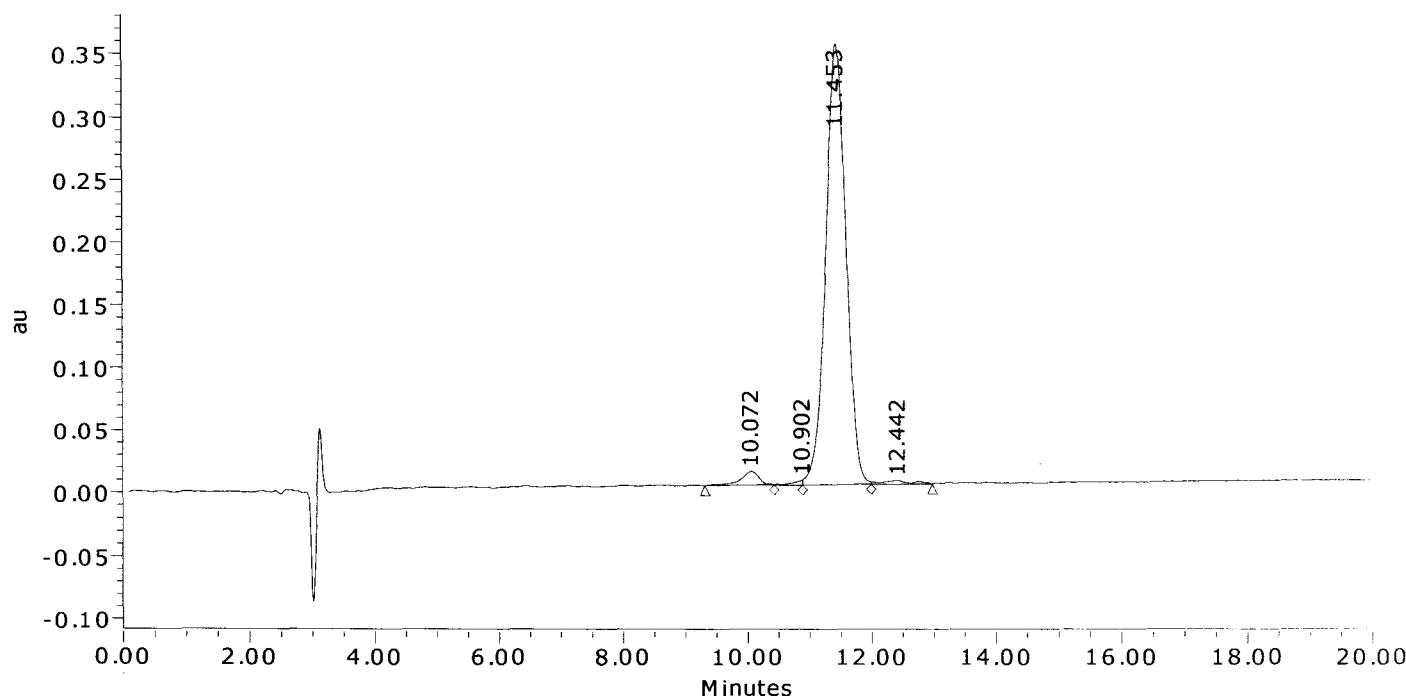
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344897/SW05138T

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/21/2008 11:38:43 CST
Sample ID:	344897	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344897_A Final_PDA
Date Acquired:	5/21/2008 10:41:56 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 36% -56% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 50C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.7	10.072	226361	10874
2	0.5	10.902	42025	4235
3	95.6	11.453	8039437	351973
4	1.2	12.442	101641	2929
Sum	100.00		8409464	370011.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344897**

**Lot # : SW05138T**

**Chemist : Yan Li**

Date Acquired :

5/21/2008 16:45:10 CST

Expected MS :

MW: 1698.0

Acq. Method Set :

Import

Processing Method :

344897\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

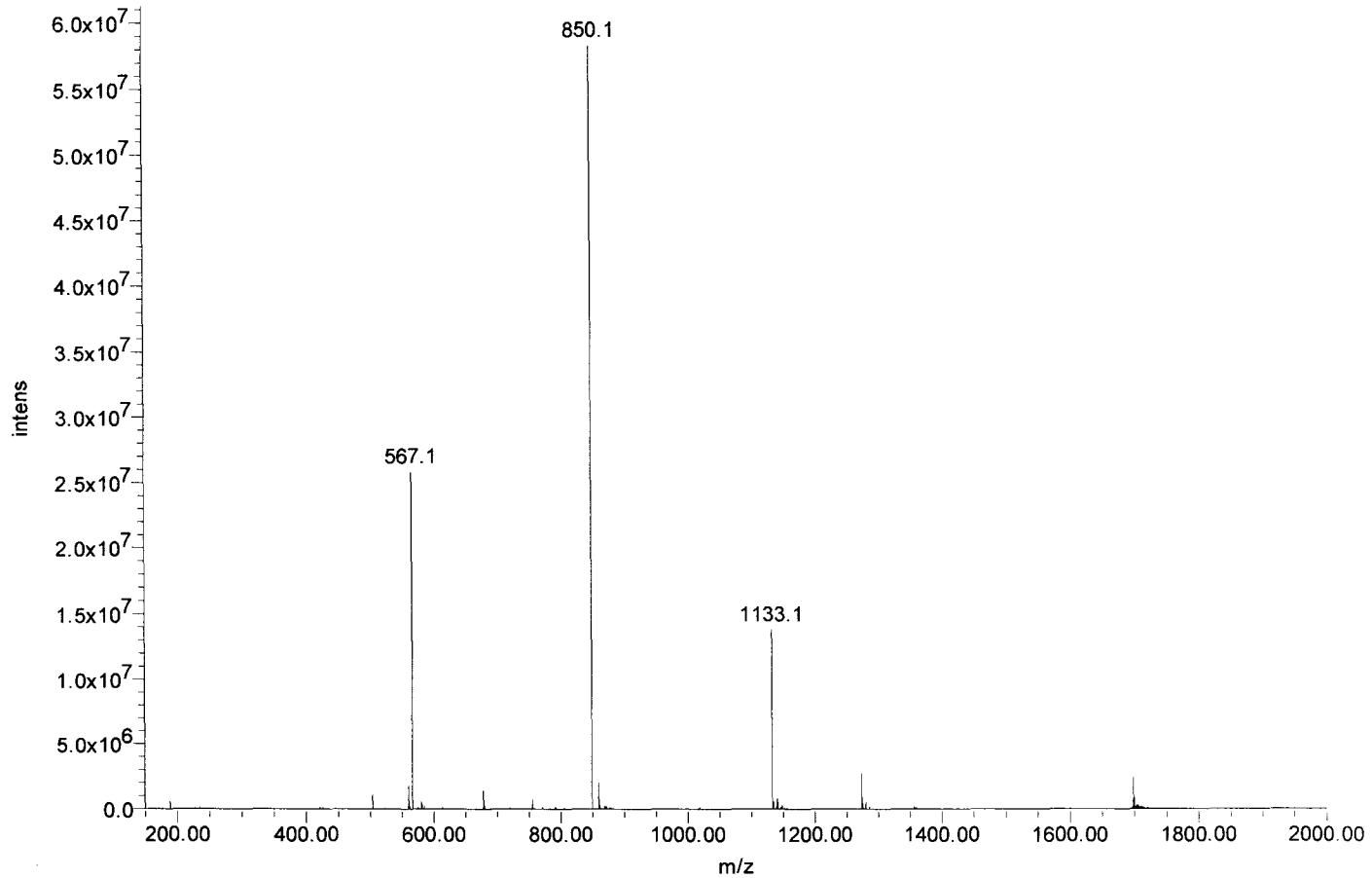
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #158  
LVRLVFNLLVKDPIEG  
Cat#5867 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344898                   **Lot #:** SW05147T  
**Sequence:** Leu-Val-Arg-Leu-Val-Phe-Asn-Leu-Val-Lys-Asp-Pro-Ile-Glu-Gly  
**Molecular Weight:** 1712.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.2%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.99		Ile	1.00	0.88		Phe	1.00	0.99	
Asx	2.00	2.00		Leu	3.00	3.03		Pro	1.00	0.92	
Glx	1.00	0.91		Lys	1.00	0.99		Val	3.00	2.88	
Gly	1.00	0.94									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/02/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
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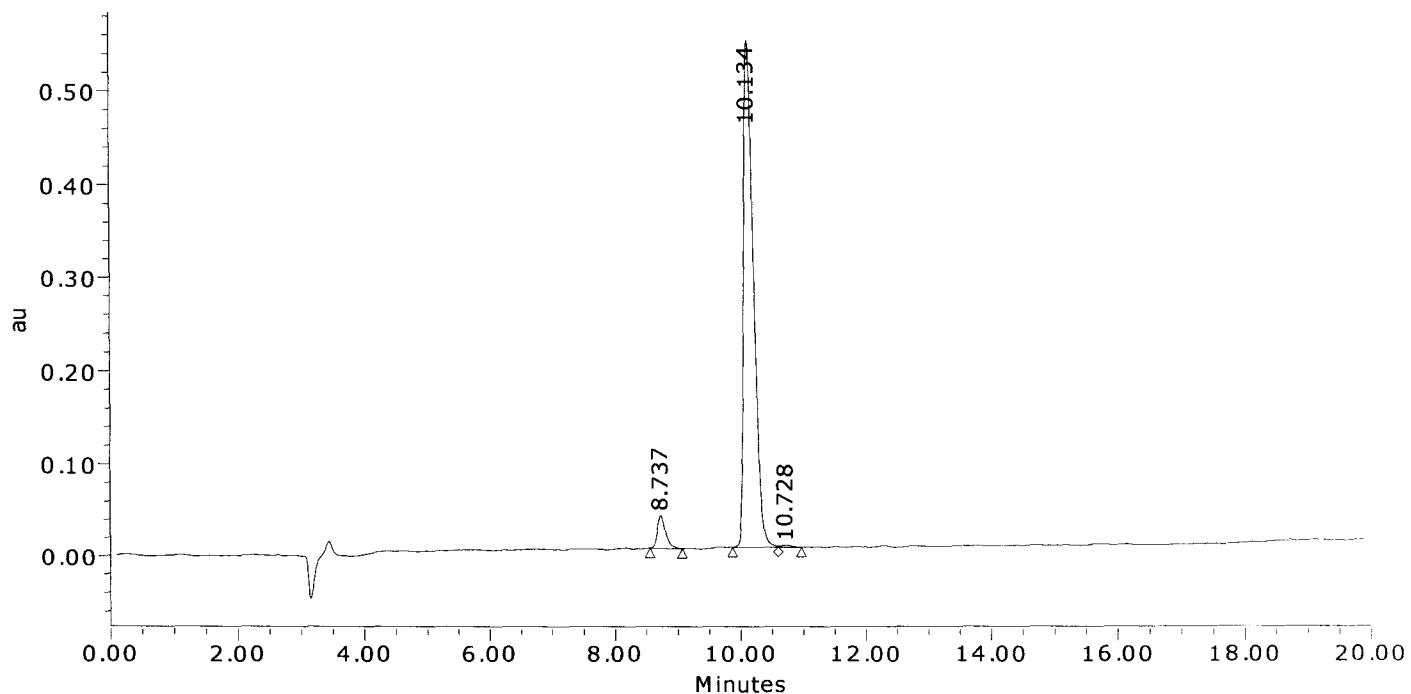
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344898/SW05147T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 10:00:13 CST  
Sample ID: 344898 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344898\_A Final\_PDA  
Date Acquired: 5/21/2008 15:31:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	5.2	8.737	328485	36087
2	94.4	10.134	5985719	544192
3	0.4	10.728	23577	2007
Sum	100.00		6337781	582286.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344898**

Lot # : **SW05147T**

Chemist : **Yan Li**

Date Acquired :

5/21/2008 15:31:09 CST

Expected MS :

MW: 1712.1

Acq. Method Set :

Import

Processing Method :

344898\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

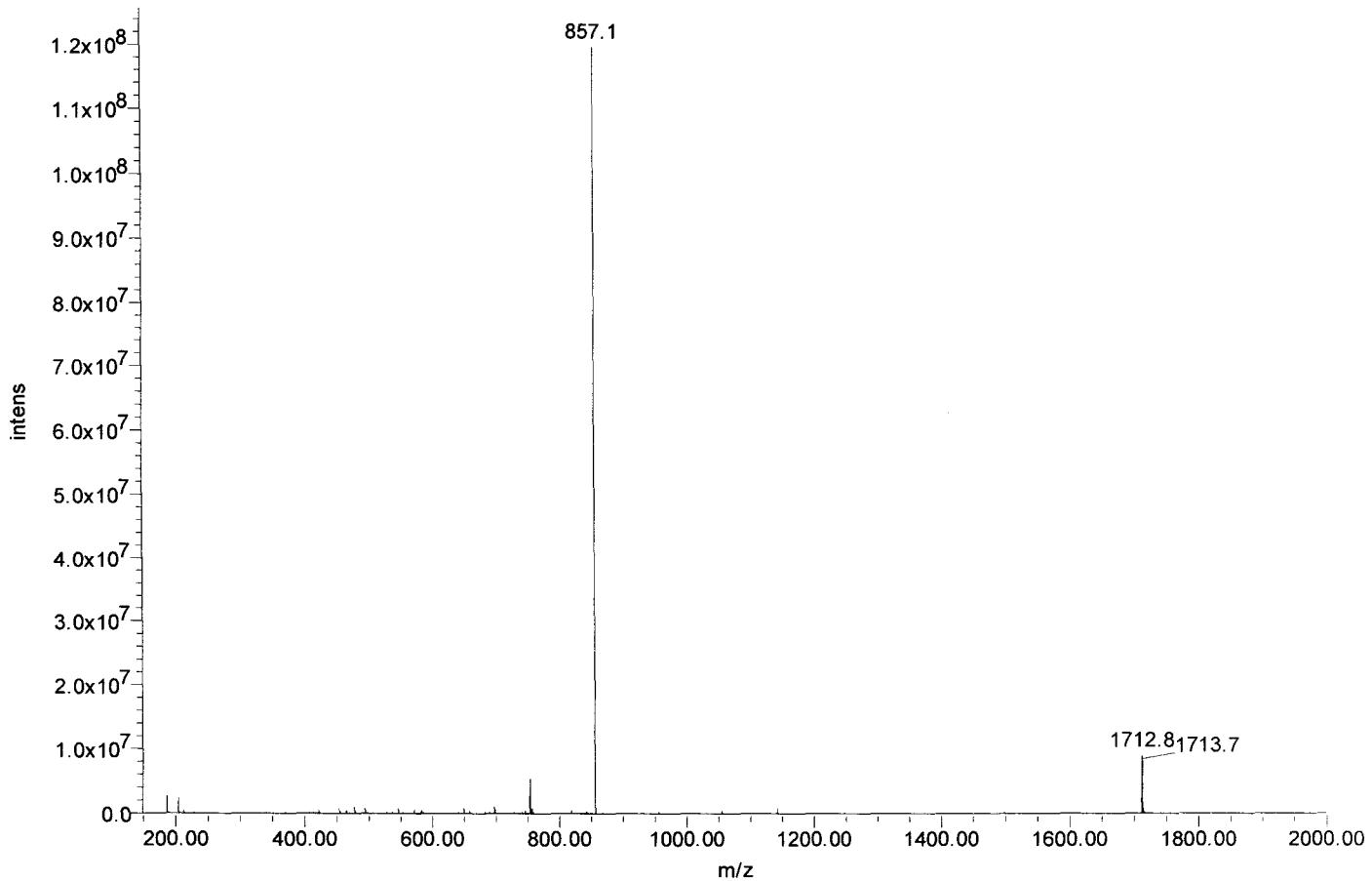
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #159**  
VFNLVKDPIEGEETY  
Cat#5868 Lot#080132  
Net Wt. 1mg

### Amino Acid Analysis:

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	1.90	Leu	1.00	1.04	Thr	1.00	1.03
Glx	3.00	3.00	Lys	1.00	1.02	Tyr	1.00	1.01
Gly	1.00	1.04	Phe	1.00	1.01	Val	2.00	2.02
Ile	1.00	1.00	Pro	1.00	0.88			

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Anil Li **Date:** 05/22/08  
**Quality Control Department**

## Quality Control Department

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
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1271 Avenida Chelsea  
Vista, CA 92081 USA

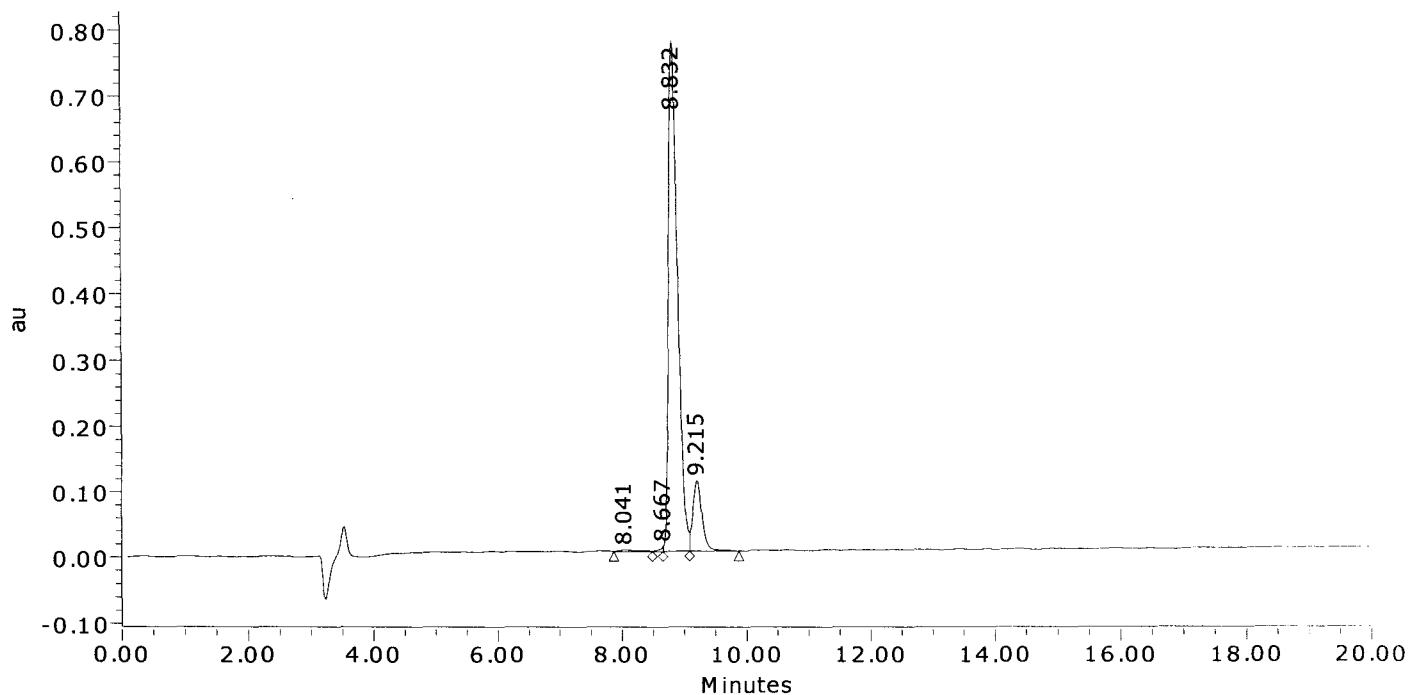
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344899/SW05129T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/20/2008 17:20:43 CST
Sample ID:	344899	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344899_A Final_PDA
Date Acquired:	5/20/2008 16:49:31 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.5	8.041	47210	2589
2	0.3	8.667	24639	7350
3	86.8	8.832	7887444	775040
4	12.4	9.215	1123439	107931
<b>Sum</b>	<b>100.00</b>		<b>9082732</b>	<b>892909.4</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344899**

**Lot # : SW05129T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 16:49:31 CST

Expected MS :

MW: 1753.0

Acq. Method Set :

Import

Processing Method :

344899\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

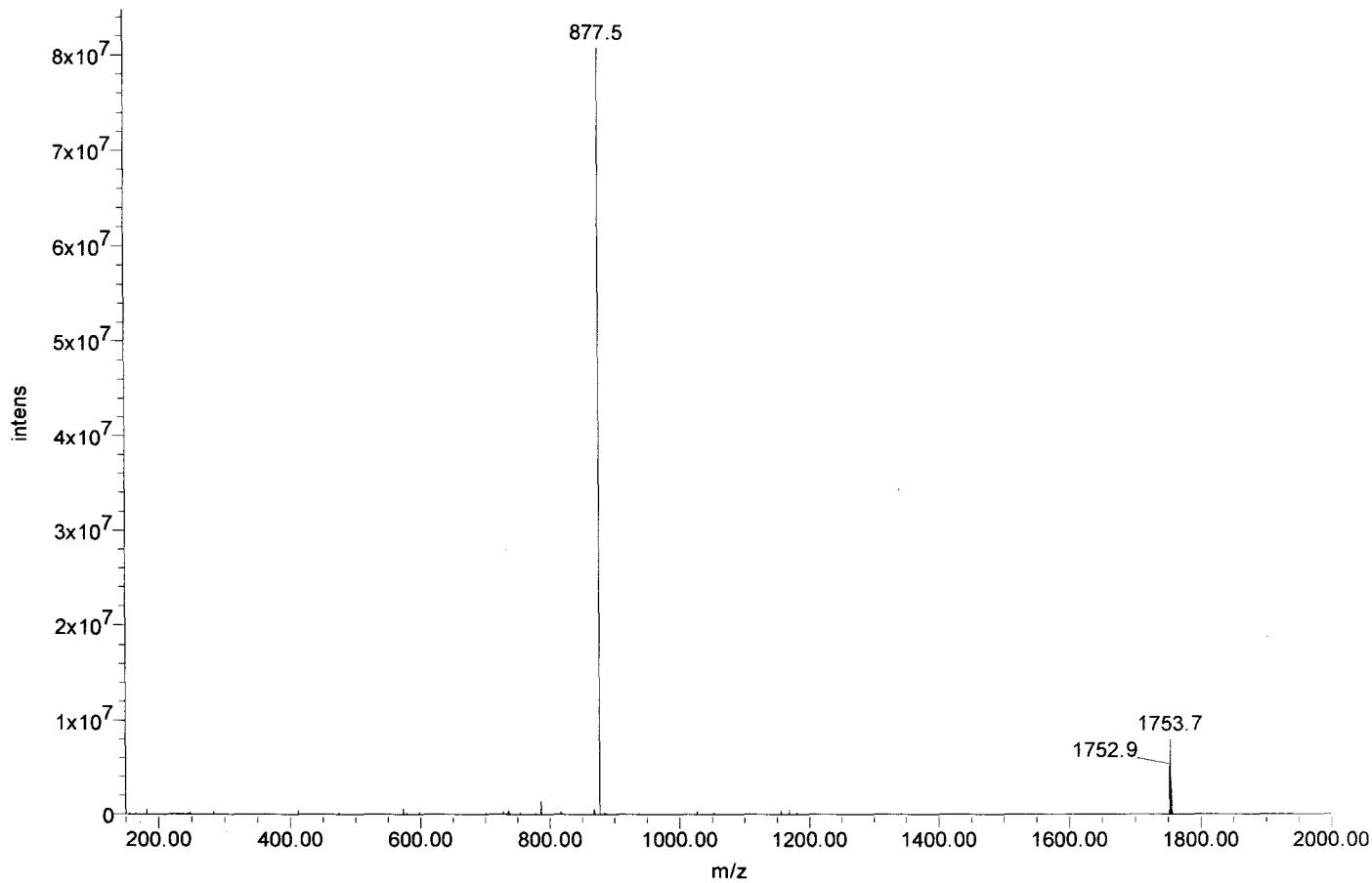
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #160  
VKDPIEGEETYTDG  
Cat#5869 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344900                   **Lot #:** SW05109T  
**Sequence:** Val-Lys-Asp-Pro-Ile-Glu-Gly-Glu-Glu-Thr-Tyr-Tyr-Thr-Asp-Gly  
**Molecular Weight:** 1715.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 87.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/19/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.05		Ile	1.00	1.05		Thr	2.00	2.08	
Glx	3.00	3.00		Lys	1.00	1.03		Tyr	2.00	2.26	
Gly	2.00	2.14		Pro	1.00	1.02		Val	1.00	1.05	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/21/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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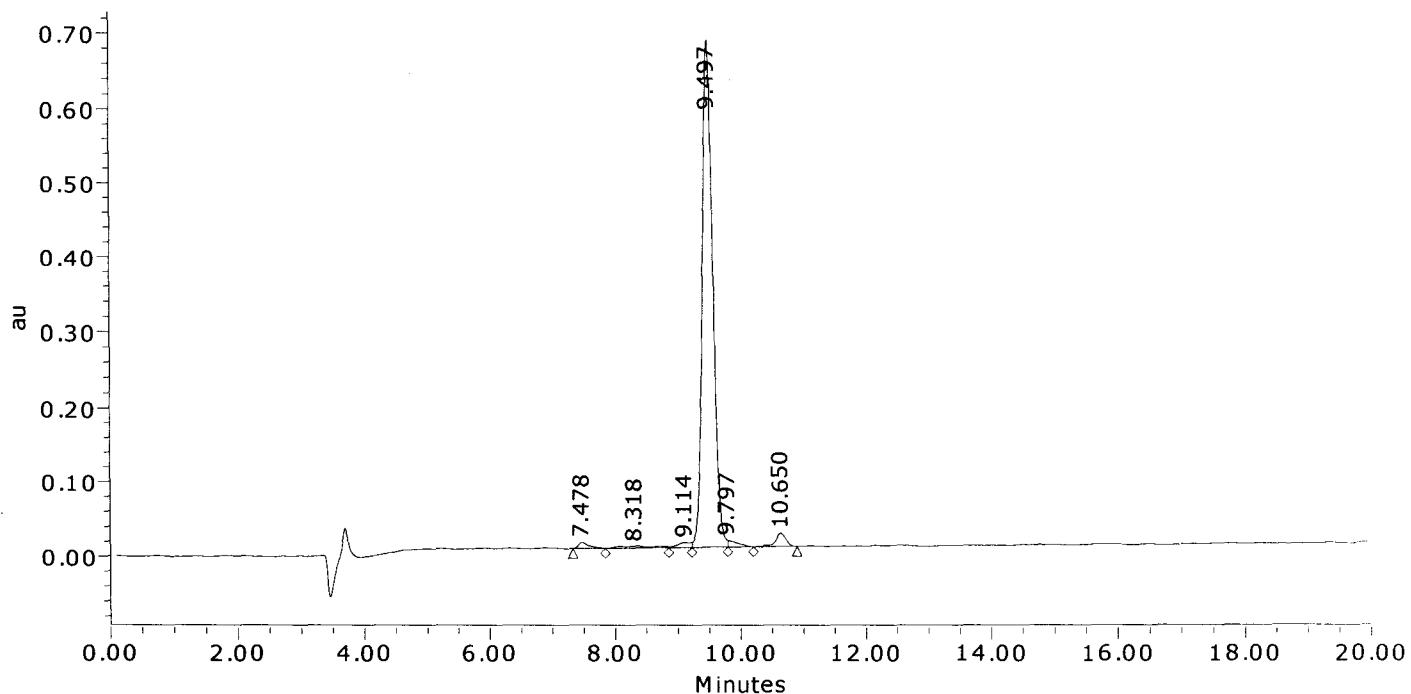
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344900/SW05109T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 10:32:04 CST  
Sample ID: 344900 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344900\_A\_Final\_PDA  
Date Acquired: 5/19/2008 20:17:55 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	1.2	7.478	100267	8744
2	1.3	8.318	112661	2839
3	1.2	9.114	103803	7045
4	92.6	9.497	7901379	678459
5	1.2	9.797	103447	9055
6	2.4	10.650	208742	17837
Sum	100.00		8530298	723978.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344900**

**Lot # : SW05109T**

**Chemist : Yan Li**

Date Acquired :

5/19/2008 20:17:55 CST

Expected MS :

MW: 1715.8

Acq. Method Set :

Import

Processing Method :

344900\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

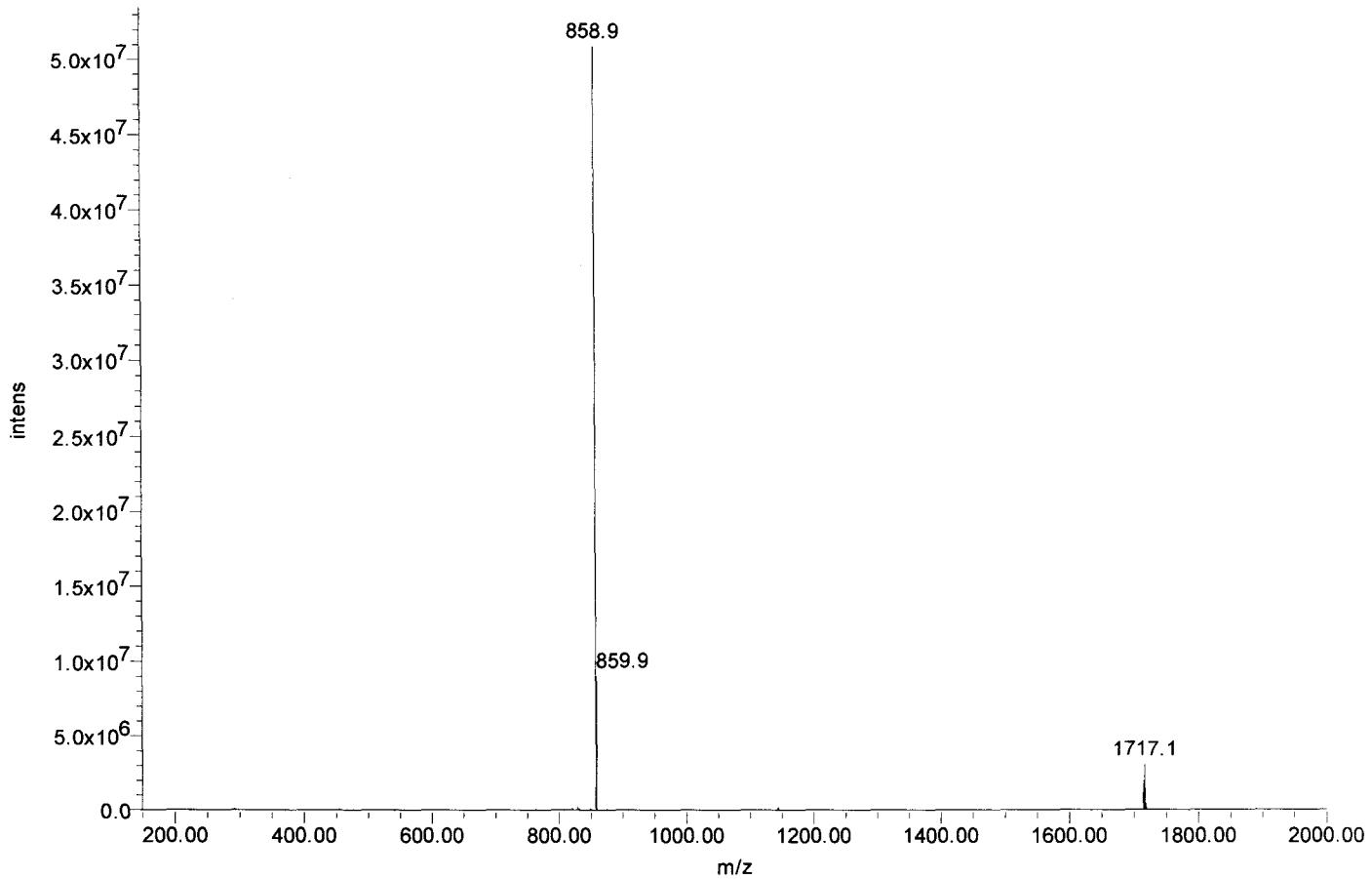
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #161  
IEGEETYYTDGSCNK  
Cat#5870 Lot#080132  
Net Wt. 1mg

**Product #:** 344901                    **Lot #:** SW05143T

**Sequence:** Ile - Glu - Gly - Glu - Glu - Thr - Tyr - Tyr - Thr - Asp - Gly - Ser - Cys - Asn - Lys

**Molecular Weight:** 1708.8 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 94.9 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 74.7 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Asx	2.00	2.00		Gly	2.00	2.08		Ser	1.00	0.78	
Cys	1.00	0.00	*1	Ile	1.00	0.99		Thr	2.00	2.01	
Glx	3.00	3.15		Lys	1.00	1.05		Tyr	2.00	1.99	

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

**Not for human use, research purposes only.**

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/16/08

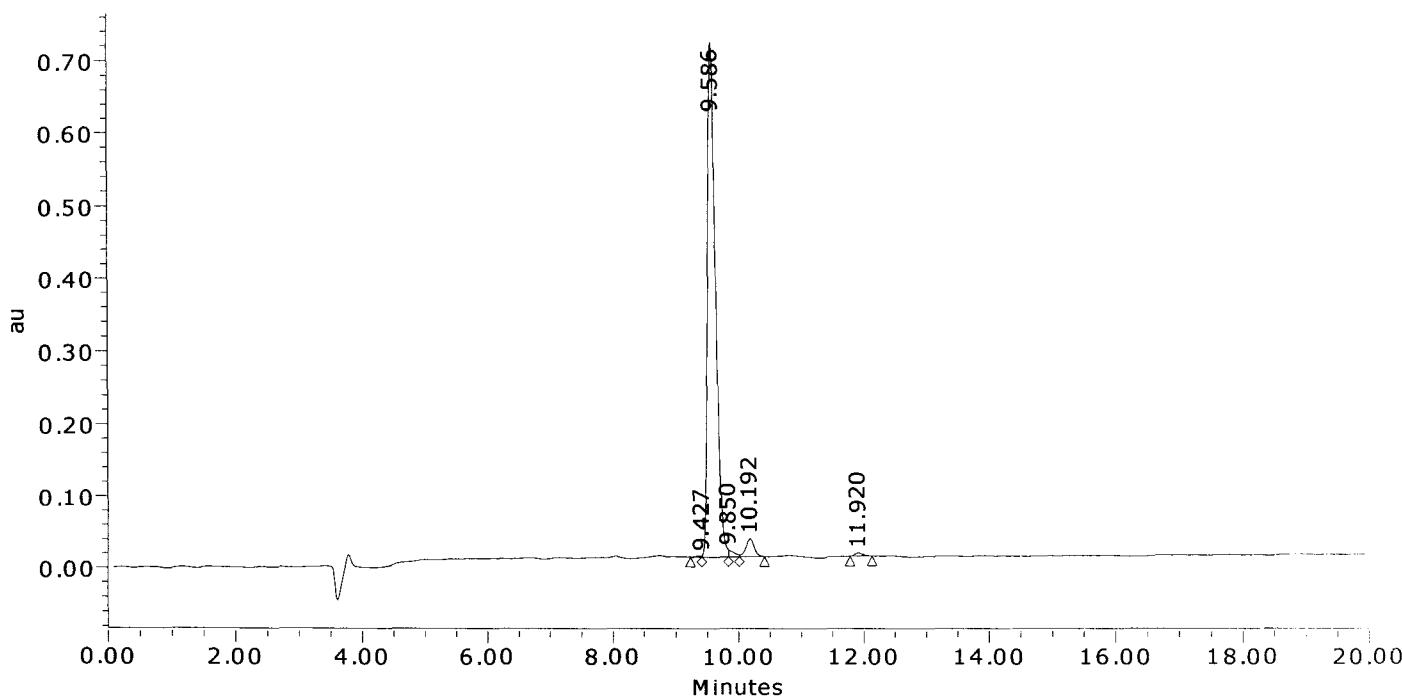
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344901/SW05143T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 16:24:07 CST  
Sample ID: 344901 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344901\_A Final\_PDA  
Date Acquired: 5/22/2008 15:51:04 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 12% -32% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.1	9.427	7928	1811
2	94.9	9.586	6284533	710554
3	0.8	9.850	55491	9457
4	3.5	10.192	230579	25427
5	0.6	11.920	41810	4677
Sum	100.00		6620342	751925.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344901

Lot # : SW05143T

Chemist : Yan Li

Date Acquired :

5/22/2008 15:51:04 CST

Expected MS :

MW: 1708.8

Acq. Method Set :

Import

Processing Method :

344901\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

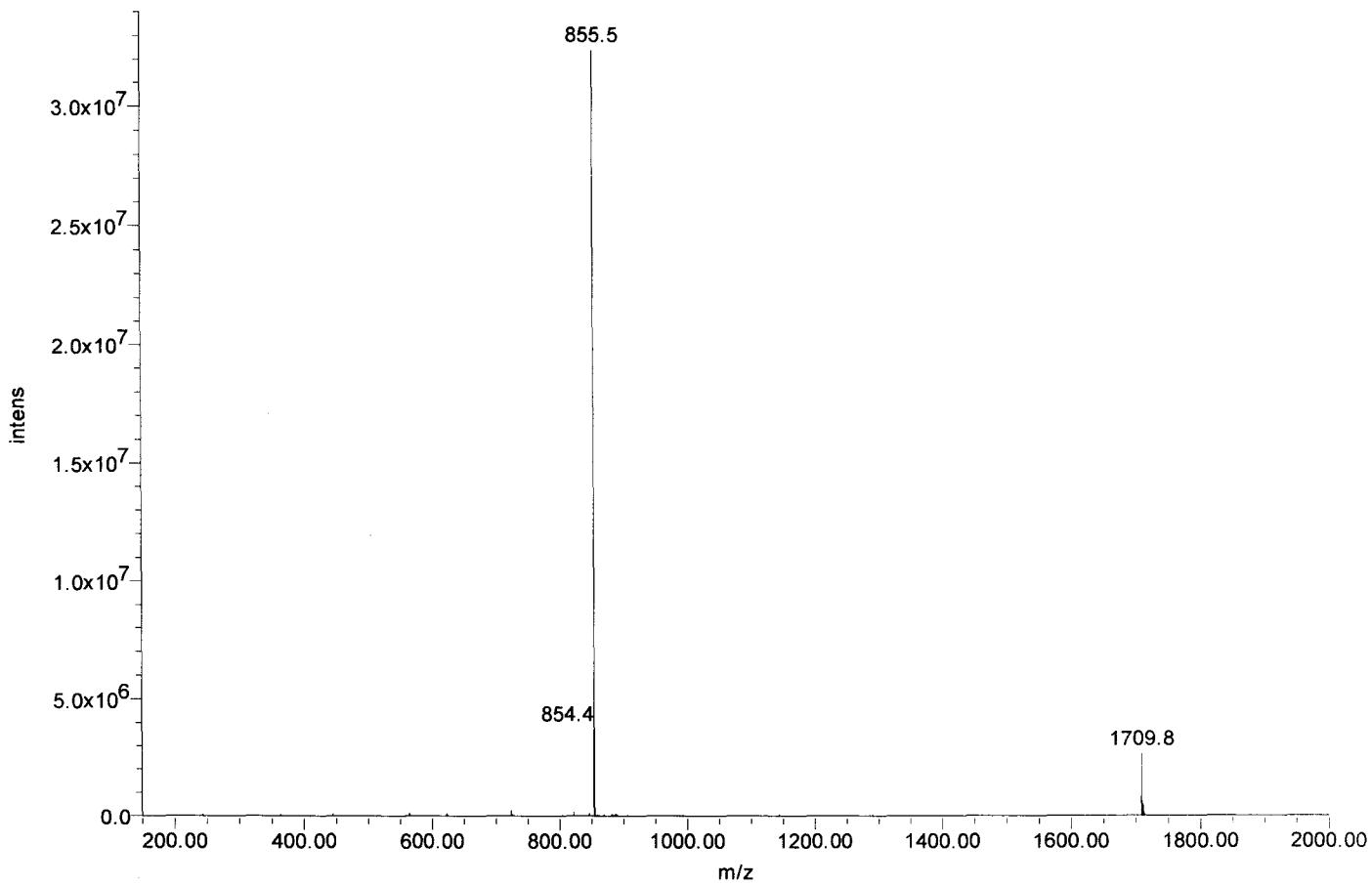
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #162  
ETYYTDGSCNKQSKE  
Cat#5871 Lot#080132  
Net Wt. 1mg

**Product #:** 344902      **Lot #:** SW05102T**Sequence:** Glu - Thr - Tyr - Tyr - Thr - Asp - Gly - Ser - Cys - Asn - Lys - Gln - Ser - Lys - Glu**Molecular Weight:** 1752.8 amu**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)**HPLC Analysis:** Peptide Purity: 91.3 %  
(see attached RP-HPLC chromatogram)**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O**Appearance:** White lyophilized powder**Peptide Content:** 79.4 %**Counter Ion:** Trifluoroacetate**Date of Mfg:** 05/17/08**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Asx	2.00	2.00		Gly	1.00	1.04		Thr	2.00	2.00	
Cys	1.00	0.00	*1	Lys	2.00	2.09		Tyr	2.00	1.97	
Glx	3.00	3.13		Ser	2.00	1.68					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.**Quality Assurance By:**Shripa Patel

Date: 06/16/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

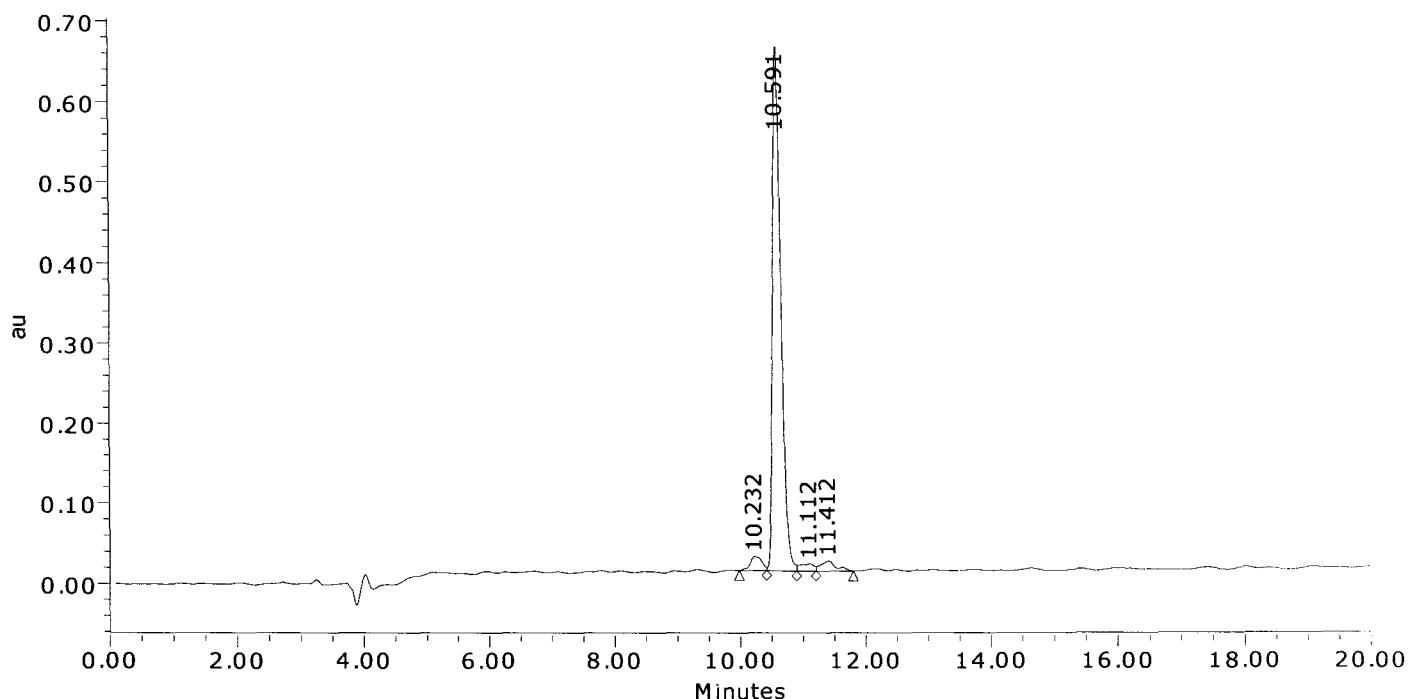
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344902/SW05102T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:10:42 CST  
Sample ID: 344902 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344902\_A Final\_PDA  
Date Acquired: 5/17/2008 2:04:13 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 8% -28% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



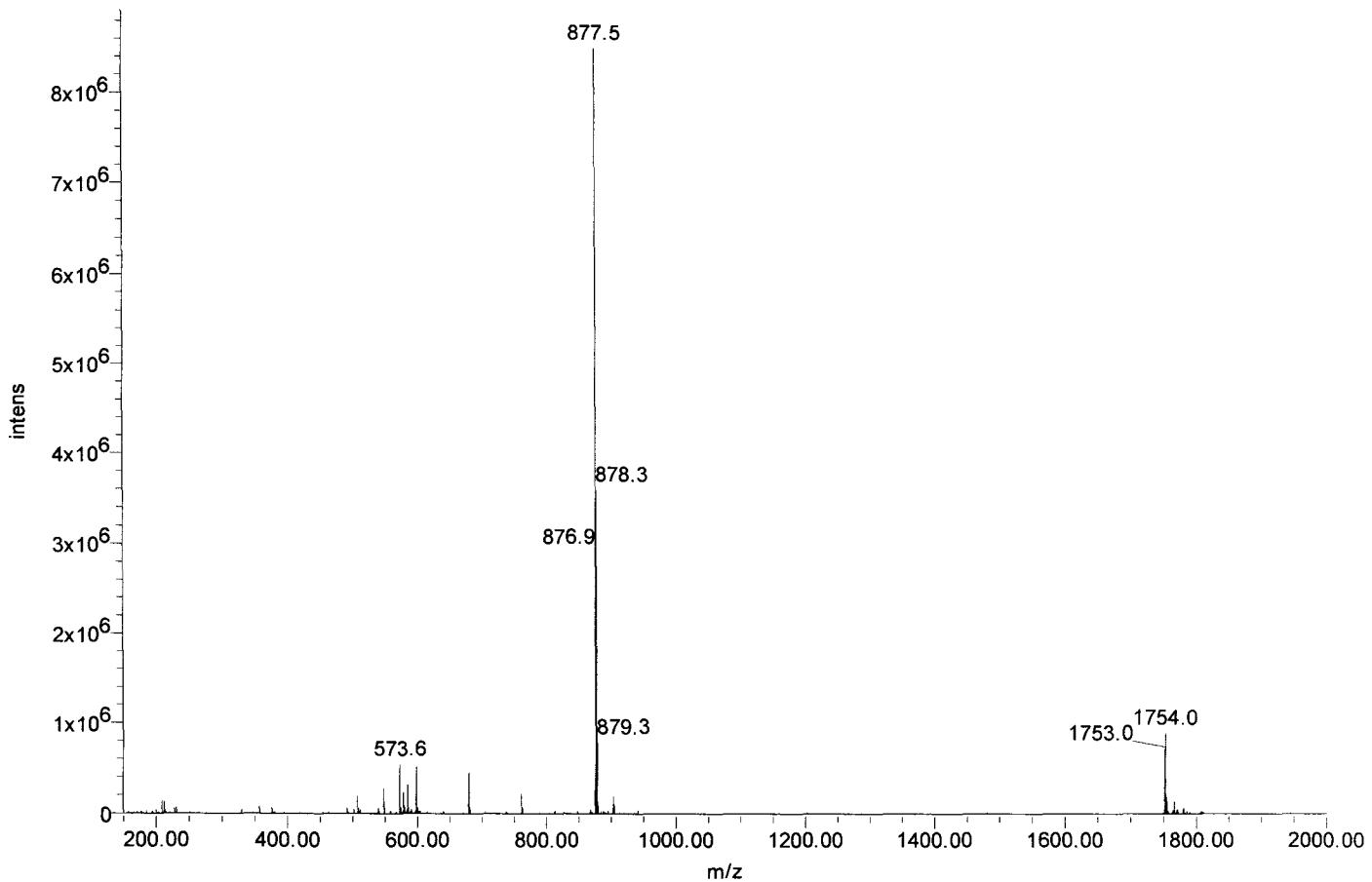
	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	3.4	10.232	226080	17357
2	91.3	10.591	6061989	651274
3	2.1	11.112	142102	8917
4	3.2	11.412	211124	13140
Sum	100.00		6641295	690687.4

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344902      **Lot # :** SW05102T      **Chemist :** Yan Li

Date Acquired : 5/17/2008 2:04:13 CST  
Expected MS : MW: 1752.8  
Acq. Method Set : Import  
Processing Method : 344902\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## **Certificate of Analysis**

**Product Name:** Custom Peptide

**SIVmac239 Pol #163**  
TDGSCNKQSKEGKAG  
Cat#5872 Lot#080132  
Net Wt. 1mg

**Product #:** 344903      **Lot #:** SW05155T

**Sequence:** Thr - Asp - Gly - Ser - Cys - Asn - Lys - Gln - Ser - Lys - Glu - Gly - Lys - Ala - Gly

**Molecular Weight:** 1509.6 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW" (see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 87.3 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 69.7 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:**

Amino Acid Analysis:											
	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.08		Glx	2.00	2.11		Ser	2.00	1.73	
Asx	2.00	2.00		Gly	3.00	3.22		Thr	1.00	1.05	
Cys	1.00	0.00	*1	Lys	3.00	3.23					

Remarks: \*1 Cys was completely destroyed during hydrolysis.

Not for human use. research purposes only.

**IMPORTANT: Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.**

**Quality Assurance By:** Shilpa Patel **Date:** 06/16/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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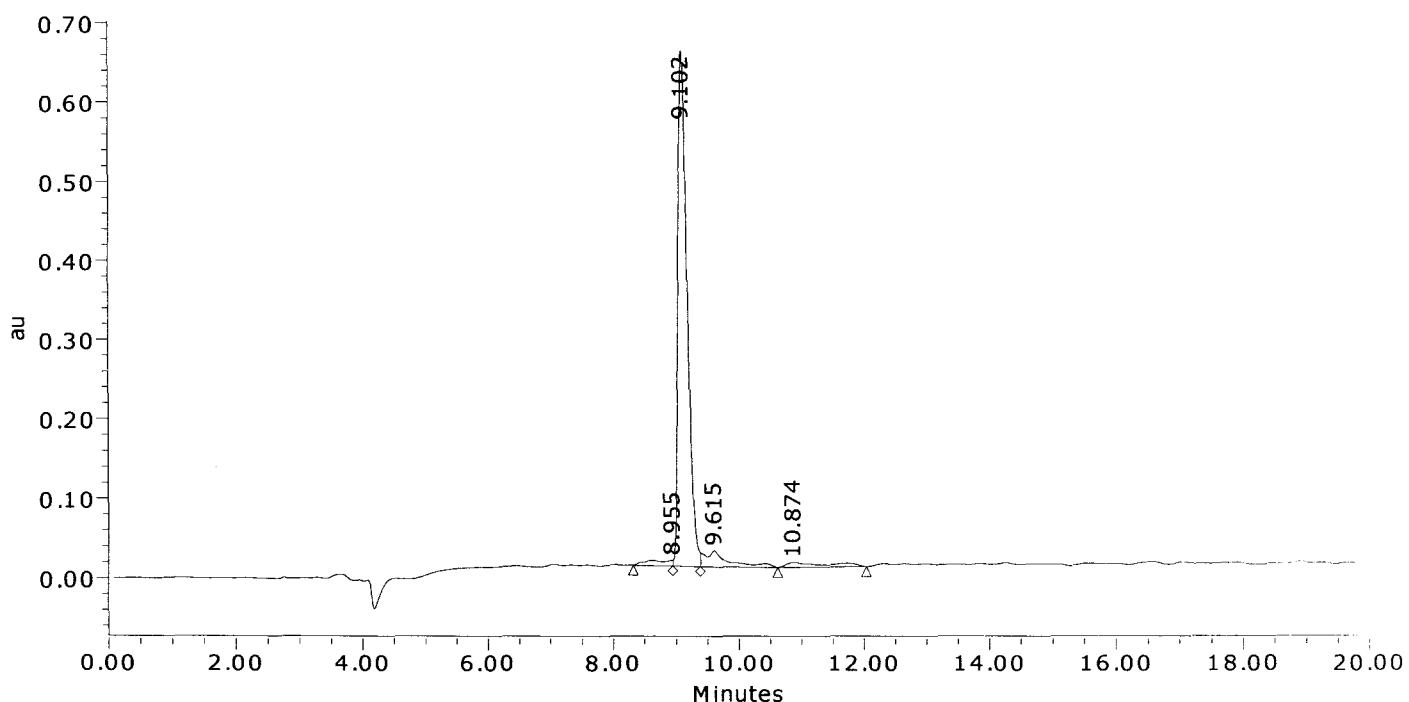
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344903/SW05155T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 11:32:48 CST  
Sample ID: 344903 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344903\_A Final\_PDA  
Date Acquired: 5/23/2008 1:27:03 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 3% -23% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li

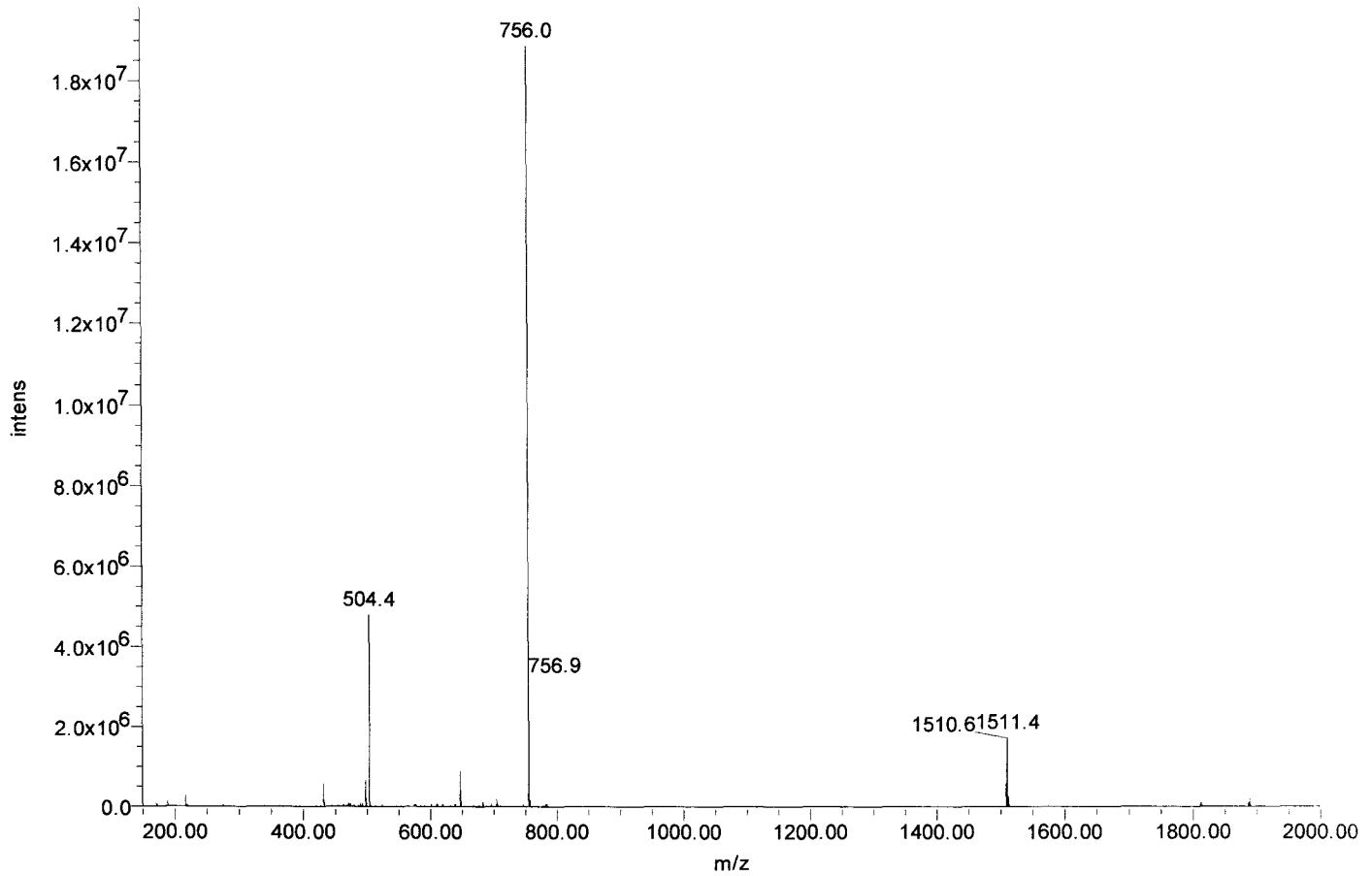


	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	2.4	8.955	179885	7068
2	87.3	9.102	6627978	650305
3	6.7	9.615	512560	19813
4	3.6	10.874	275764	5925
Sum	100.00		7596188	683110.3

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344903      **Lot # :** SW05155T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 1:27:03 CST  
Expected MS : MW: 1509.6  
Acq. Method Set : Import  
Processing Method : 344903\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #164**  
**CNKQSKEGKAGYITD**  
**Cat#5873 Lot#080132**  
**Net Wt. 1mg**

**Product Name:** Custom Peptide

**Product #:** 344904                           **Lot #:** SW05161T

**Sequence:** Cys-Asn-Lys-Gln-Ser-Lys-Glu-Gly-Lys-Ala-Gly-Tyr-Ile-Thr-Asp

**Molecular Weight:** 1641.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.7%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 71.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### **Amino Acid Analysis:**

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/26/08  
**Quality Control Department**

## Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA

1271 Avenida Chelsea  
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Tel: 760-507-8886 Fax: 760-507-8816

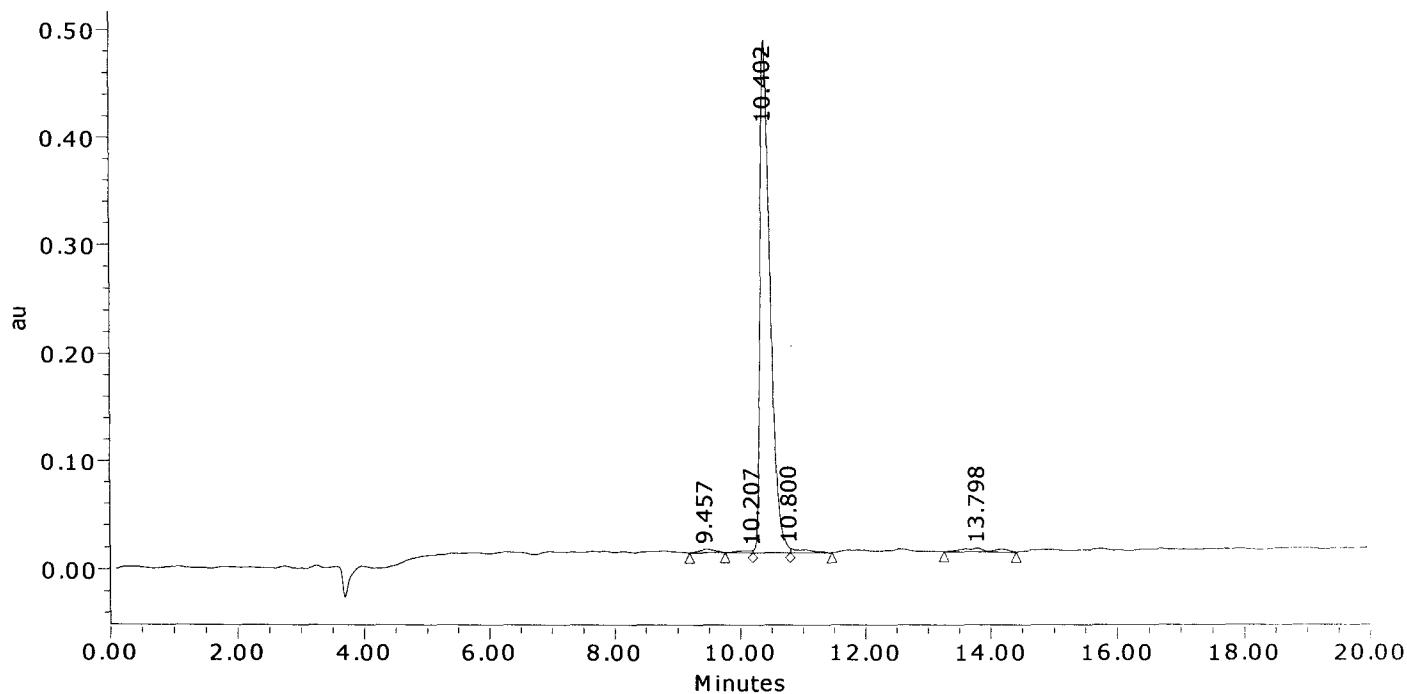
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344904/SW05161T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 10:47:58 CST  
Sample ID: 344904 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344904\_A Final\_PDA  
Date Acquired: 5/22/2008 23:28:11 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 10% -30% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.9	9.457	51701	2873
2	0.5	10.207	29982	1990
3	95.7	10.402	5295746	475513
4	1.1	10.800	63490	4053
5	1.7	13.798	95322	2940
Sum	100.00		5536241	487369.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344904**

**Lot # : SW05161T**

**Chemist : Yan Li**

Date Acquired :

5/22/2008 23:28:11 CST

Expected MS :

MW: 1641.8

Acq. Method Set :

Import

Processing Method :

344904\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

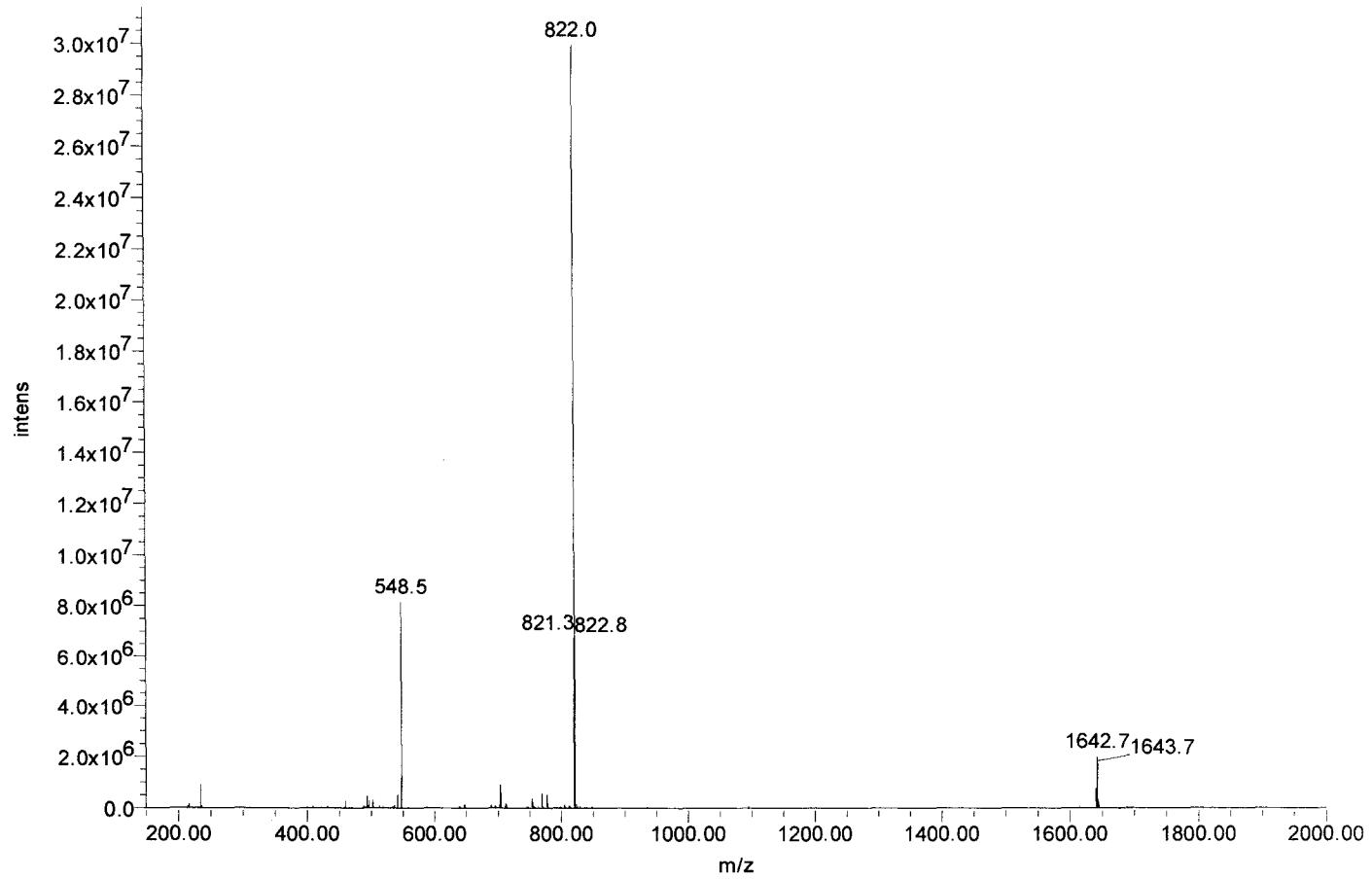
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #165  
SKEGKAGYITDRGKD  
Cat#5874 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344905                   **Lot #:** SW05097T

**Sequence:** Ser-Lys-Glu-Gly-Lys-Ala-Gly-Tyr-Ile-Thr-Asp-Arg-Gly-Lys-Asp

**Molecular Weight:** 1624.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 83.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 63.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		Gly	3.00	3.03	Ser	1.00	0.83
Arg	1.00	1.00		Ile	1.00	1.00	Thr	1.00	0.98
Asx	2.00	1.98		Lys	3.00	3.05	Tyr	1.00	1.07
Glx	1.00	0.97							

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

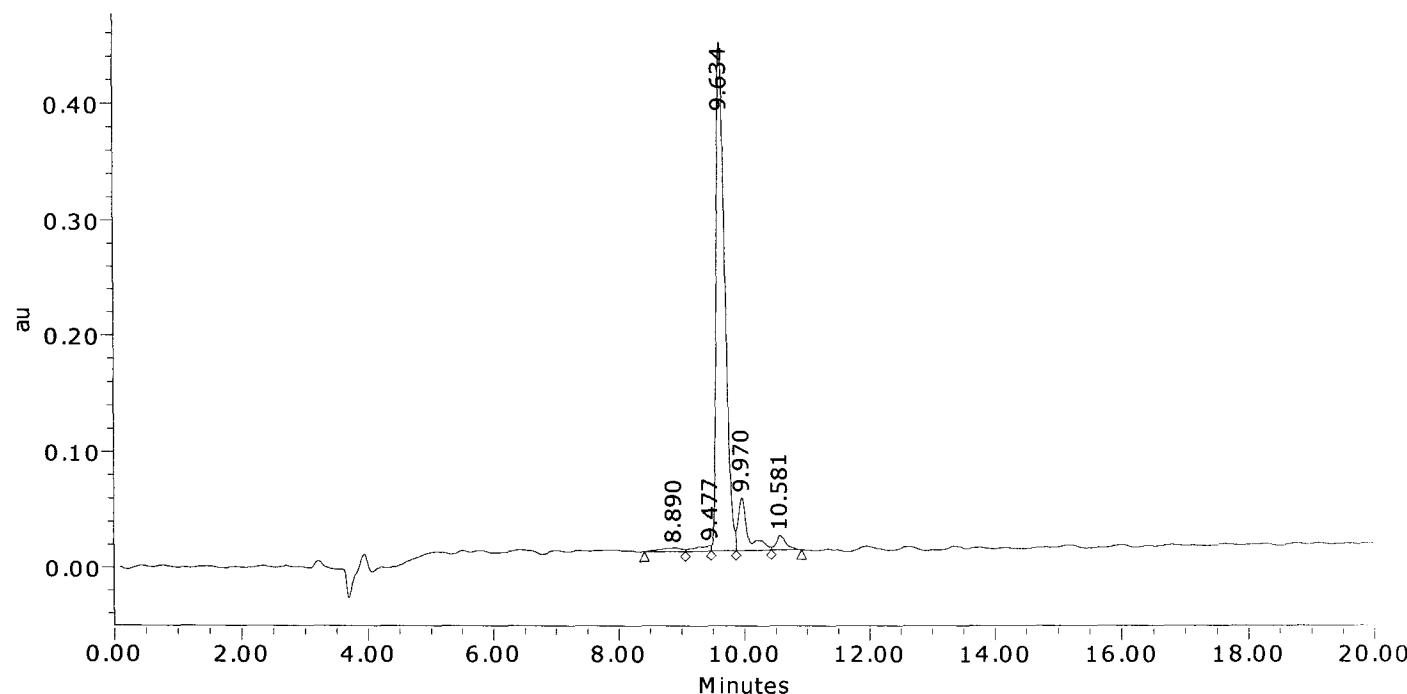
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344905/SW05097T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 13:35:05 CST  
Sample ID: 344905 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344905\_A Final\_PDA  
Date Acquired: 5/17/2008 1:24:37 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 10% -30% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

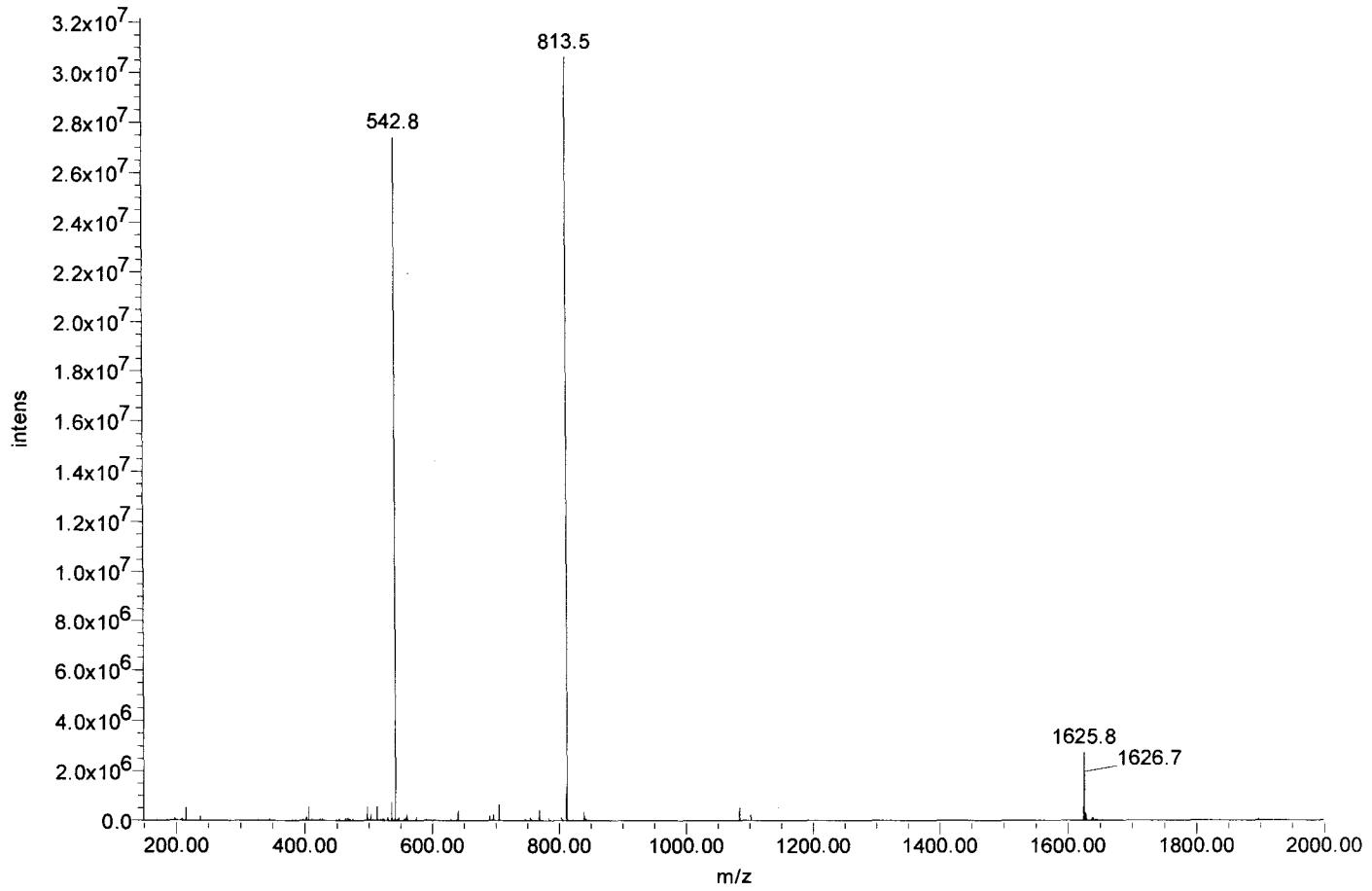


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.6	8.890	80098	3328
2	1.6	9.477	82097	4685
3	83.6	9.634	4176461	438300
4	10.4	9.970	517993	46043
5	2.8	10.581	137527	12792
Sum	100.00		4994176	505147.9

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344905      **Lot # :** SW05097T      **Chemist :** Yan Li

Date Acquired : 5/17/2008 1:24:37 CST  
Expected MS : MW: 1624.8  
Acq. Method Set : Import  
Processing Method : 344905\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #166  
KAGYITDRGDKVKV  
Cat#5875 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344906                   **Lot #:** SW05105T

**Sequence:** Lys-Ala-Gly-Tyr-Ile-Thr-Asp-Arg-Gly-Lys-Asp-Lys-Val-Lys-Val

**Molecular Weight:** 1678.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.4%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 63.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05	Gly		2.00	1.95		Thr	1.00	1.03	
Arg	1.00	1.00	Ile		1.00	0.97		Tyr	1.00	1.04	
Asx	2.00	2.03	Lys		4.00	4.00		Val	2.00	2.01	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/21/08

Quality Control Department

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1-2-1 Kubogaoka

Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

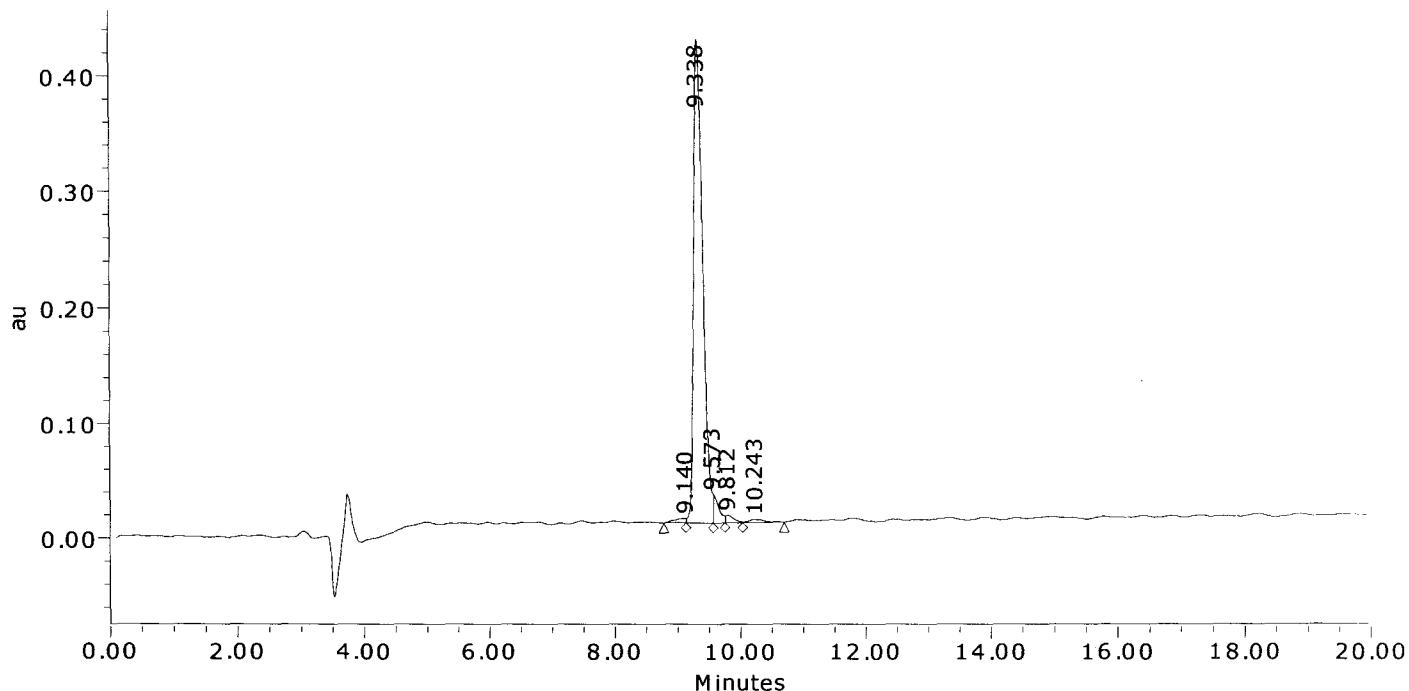
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344906/SW05105T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 12:22:44 CST  
Sample ID: 344906 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344906\_A\_Final\_PDA  
Date Acquired: 5/17/2008 0:07:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

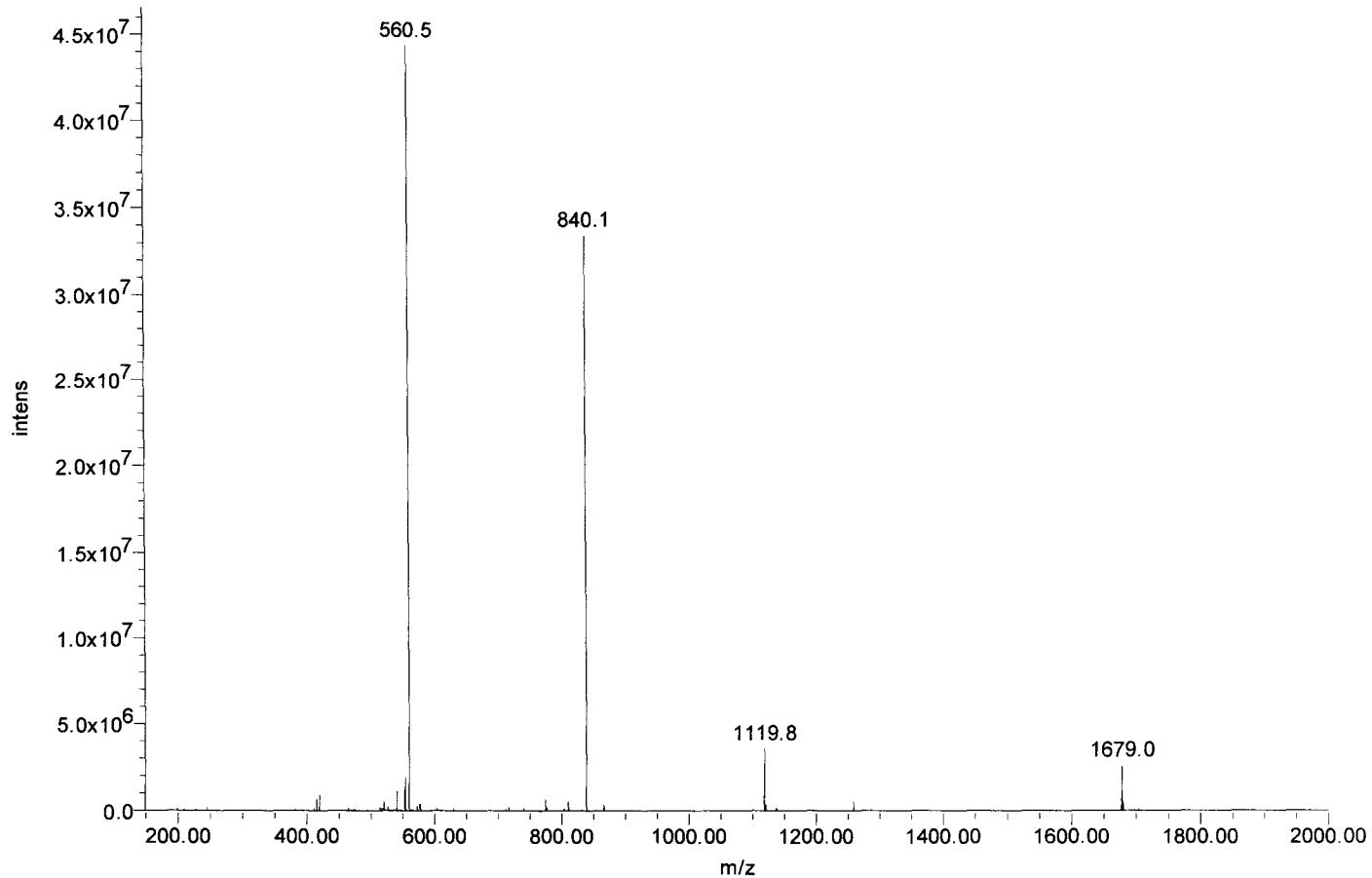


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.0	9.140	45227	3600
2	93.4	9.338	4242459	418990
3	3.3	9.573	148029	24328
4	1.2	9.812	55955	6016
5	1.1	10.243	48612	2764
Sum	100.00		4540282	455698.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344906      **Lot # :** SW05105T      **Chemist :** Yan Li

Date Acquired : 5/17/2008 0:07:26 CST  
Expected MS : MW: 1678.0  
Acq. Method Set : Import  
Processing Method : 344906\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #167**  
ITDRGKDKVKVLEQT  
Cat#5876 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.93	Gly	1.00	1.00	Lys	3.00	3.07
Asx	2.00	1.93	Ile	1.00	0.96	Thr	2.00	1.93
Glx	2.00	2.04	Leu	1.00	1.12	Val	2.00	2.04

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/22/08  
**Quality Control Department**

## Quality Control Department

# AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

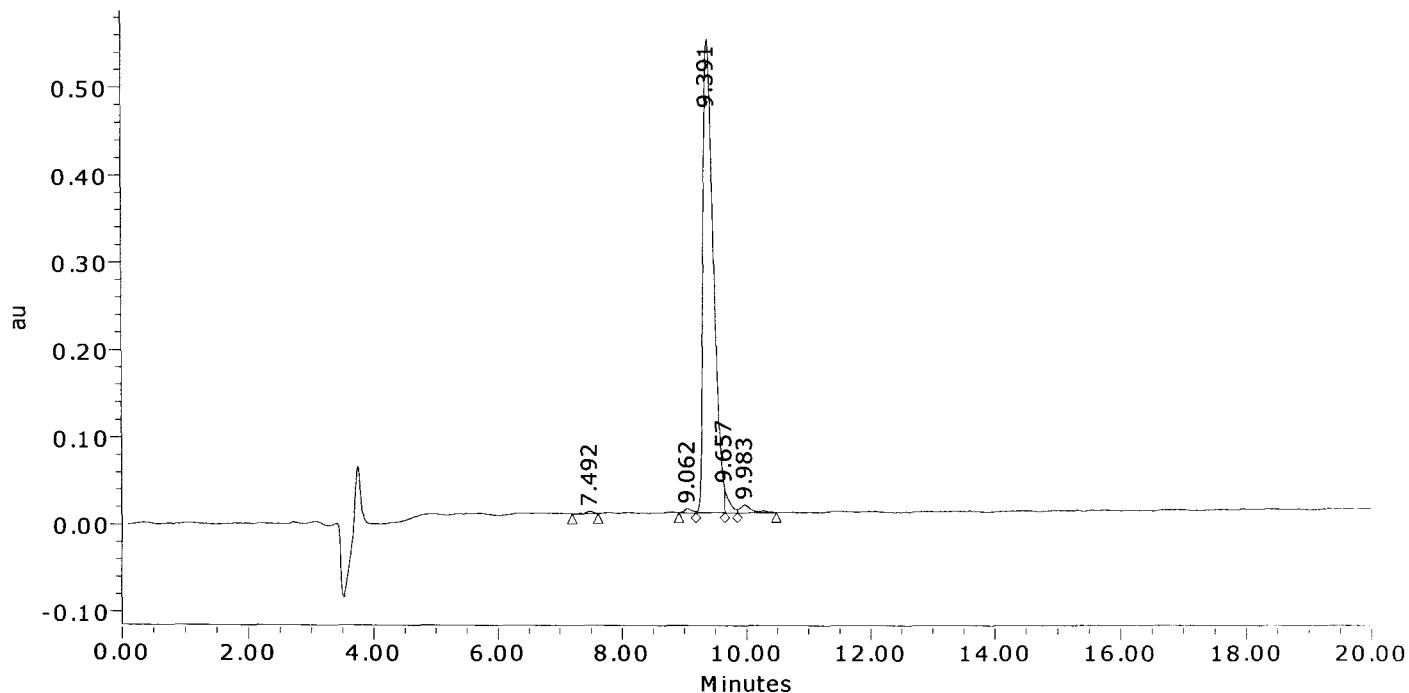
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344907/SW05125T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/21/2008 10:04:58 CST  
Sample ID: 344907 Time Calculated:  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344907\_A Final\_PDA  
Date Acquired: 5/20/2008 19:06:32 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

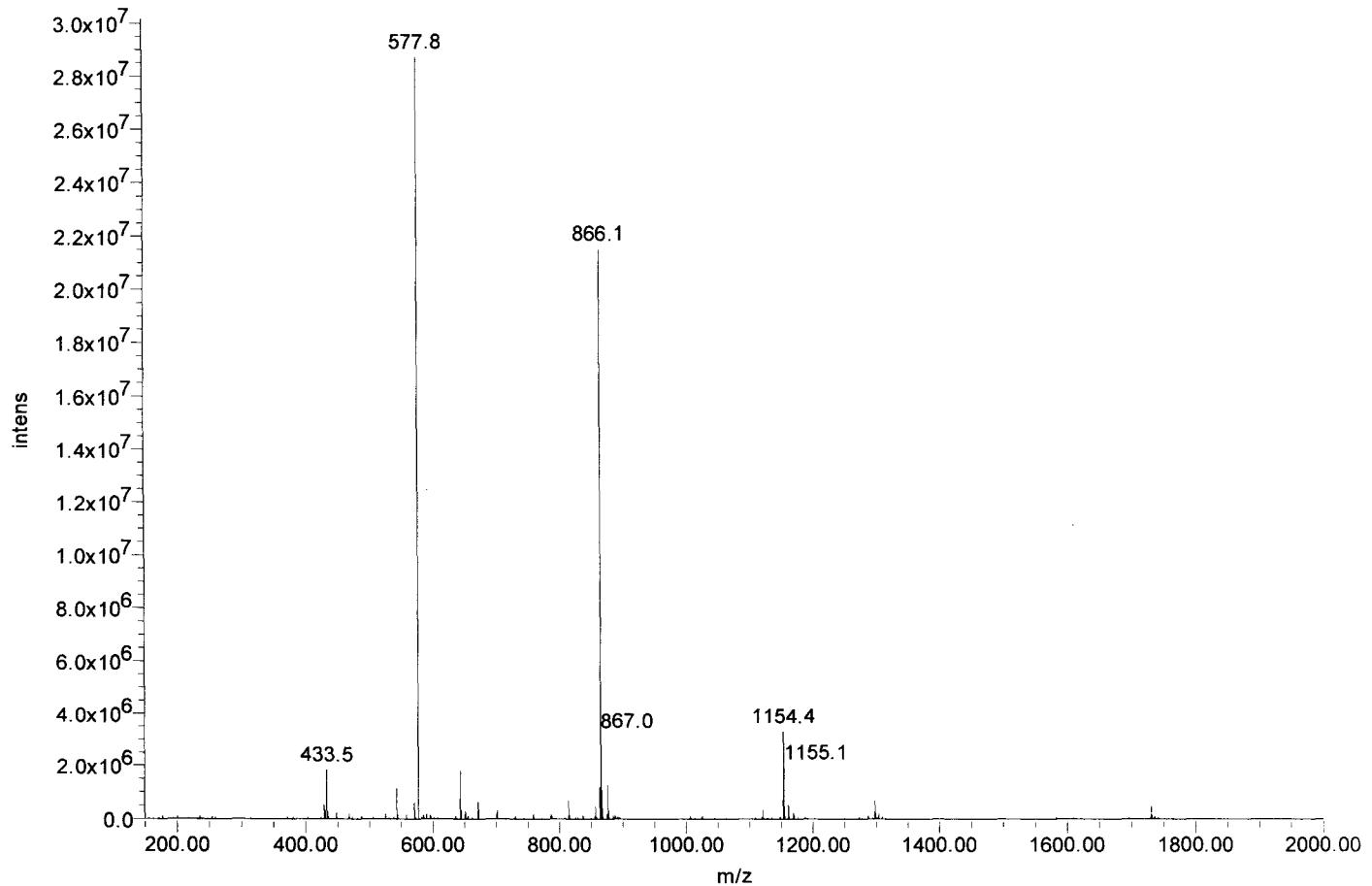
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14%-34% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	7.492	24770	2308
2	0.6	9.062	36278	4260
3	95.2	9.391	6233632	541537
4	2.1	9.657	140219	28720
5	1.7	9.983	111407	9231
Sum	100.00		6546306	586055.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344907</b>	<b>Lot # :</b> SW05125T	<b>Chemist :</b> Yan Li
<b>Date Acquired :</b>	5/21/2008 10:19:31 CST		
<b>Expected MS :</b>	MW: 1730.0		
<b>Acq. Method Set :</b>	Import		
<b>Processing Method :</b>	344907_A Final_MS		
<b>Data Path :</b>	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
<b>Run Time :</b>	1.0 Minutes		
<b>Flow rate :</b>	1.0 mL/min		
<b>Buffers :</b>	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
<b>Instruments :</b>	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #168  
GKDKVKVLEQITTNQQ  
Cat#5877 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344908                   **Lot #:** SW05162T

**Sequence:** Gly-Lys-Asp-Lys-Val-Lys-Val-Leu-Glu-Gln-Thr-Thr-Asn-Gln-Gln

**Molecular Weight:** 1715.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.4%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		Leu	1.00	1.11		Thr	2.00	2.02	
Glx	4.00	3.90		Lys	3.00	3.04		Val	2.00	2.01	
Gly	1.00	1.05									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/26/08  
Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

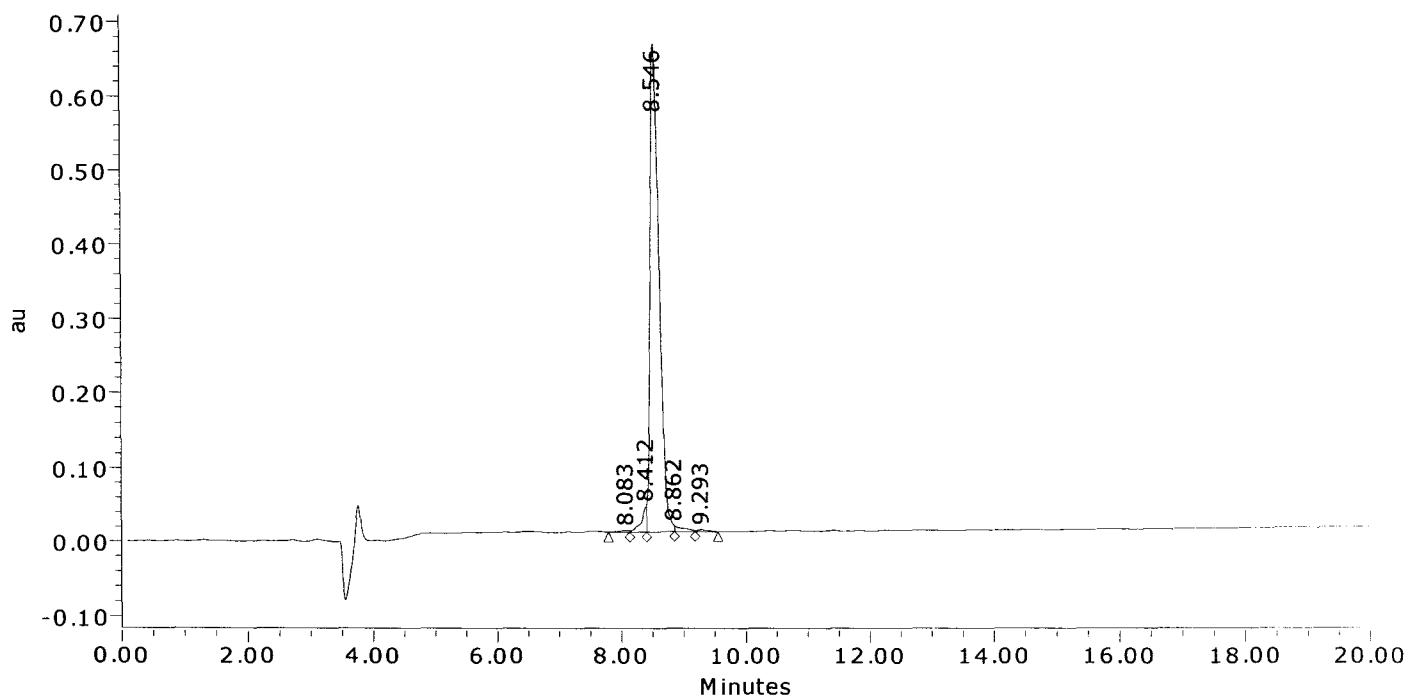
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344908/SW05162T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 10:31:18 CST  
Sample ID: 344908 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344908\_A Final\_PDA  
Date Acquired: 5/22/2008 22:10:56 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 13% -33% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li

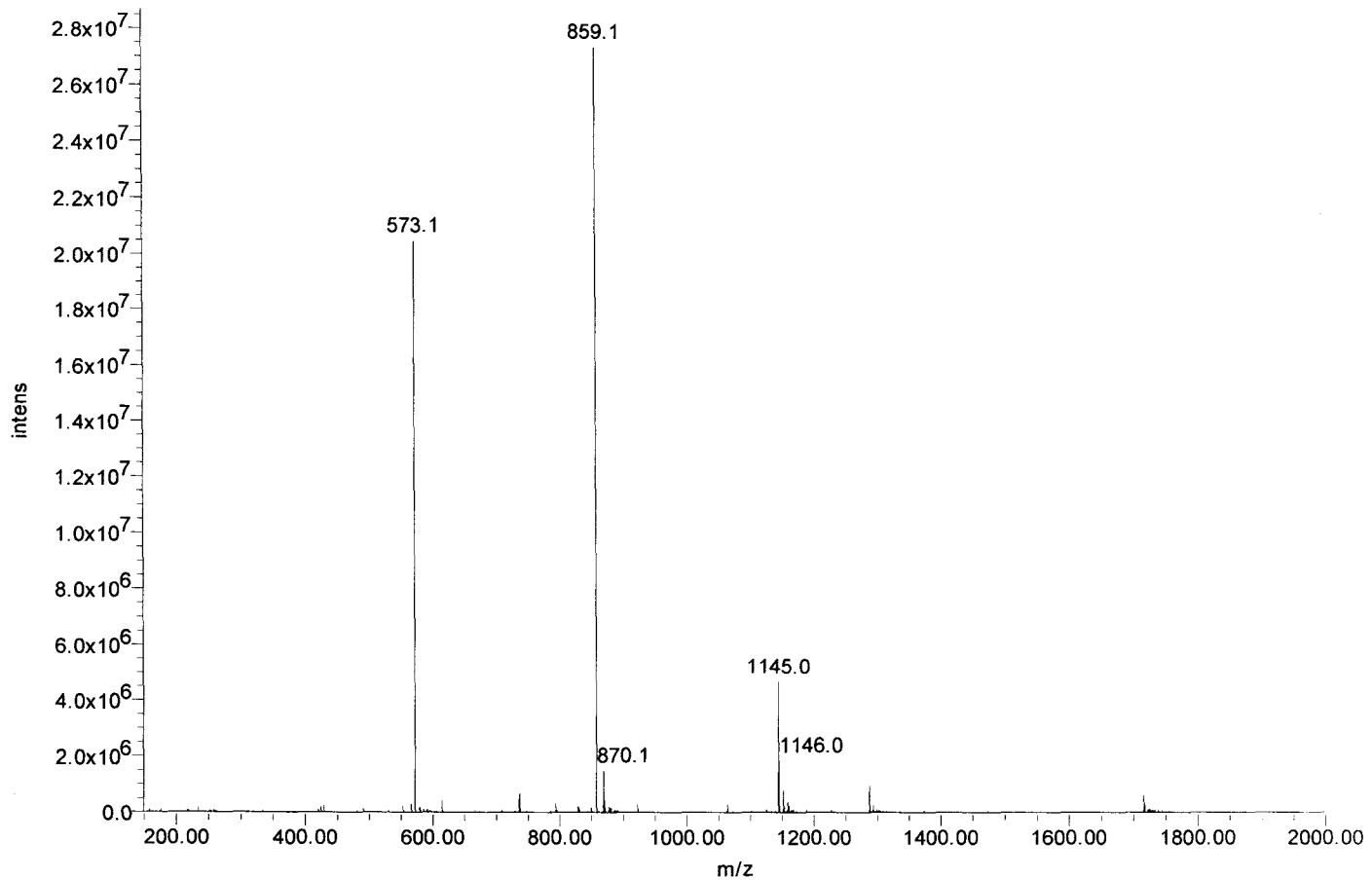


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.3	8.083	24166	2148
2	2.9	8.412	198939	35115
3	95.2	8.546	6634566	658283
4	1.2	8.862	80774	7936
5	0.4	9.293	29581	2471
<b>Sum</b>	<b>100.00</b>		<b>6968026</b>	<b>705954.0</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344908      **Lot # :** SW05162T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 12:30:31 CST  
Expected MS : MW: 1715.9  
Acq. Method Set : Import  
Processing Method : 344908\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #169  
VKVLEQTTNQQAELE  
Cat#5878 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344909                   **Lot #:** SW05212T  
**Sequence:** Val-Lys-Val-Leu-Glu-Gln-Thr-Thr-Asn-Gln-Gln-Ala-Glu-Leu-Glu  
**Molecular Weight:** 1729.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 87.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 83.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.06		Leu	2.00	2.18		Thr	2.00	2.06	
Asx	1.00	1.06		Lys	1.00	1.05		Val	2.00	2.02	
Glx	6.00	6.00									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/30/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

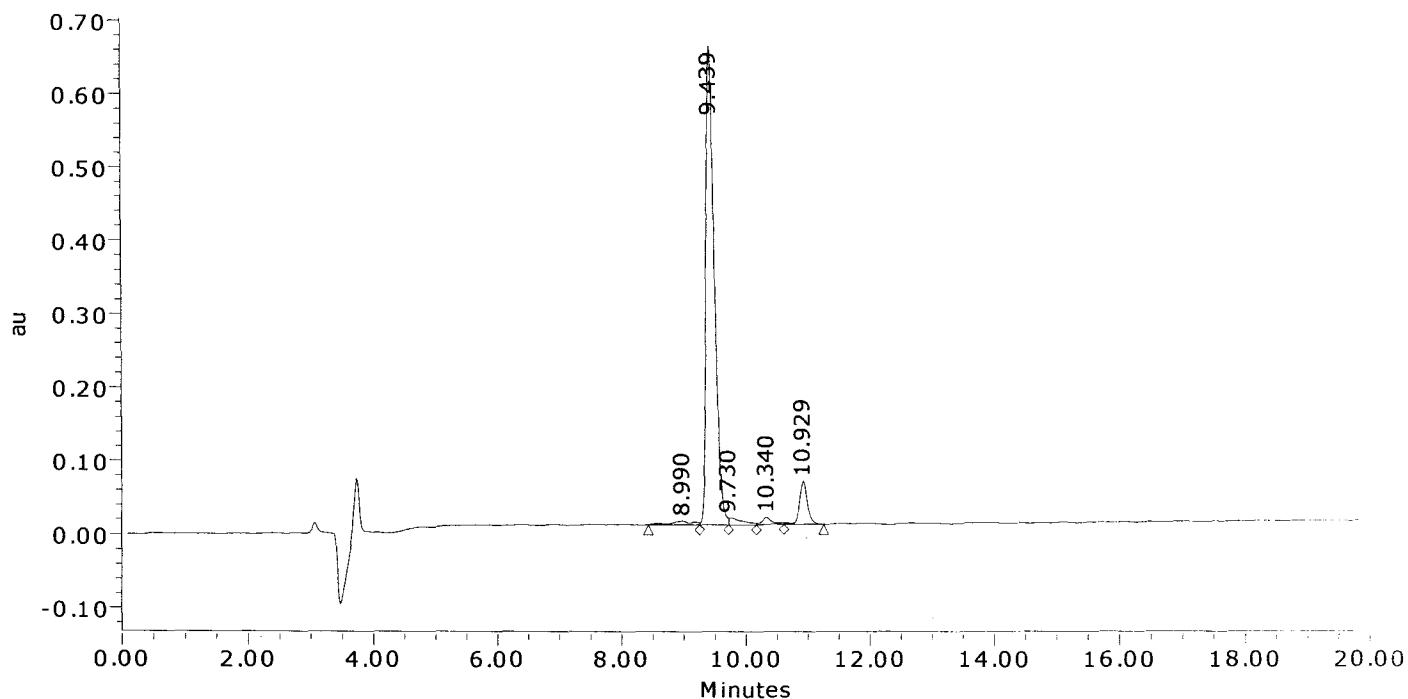
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344909/SW05212T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 14:24:51 CST  
Sample ID: 344909 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344909\_A Final\_PDA  
Date Acquired: 5/27/2008 13:43:06 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 20 uL  
Analyst: Yan Li

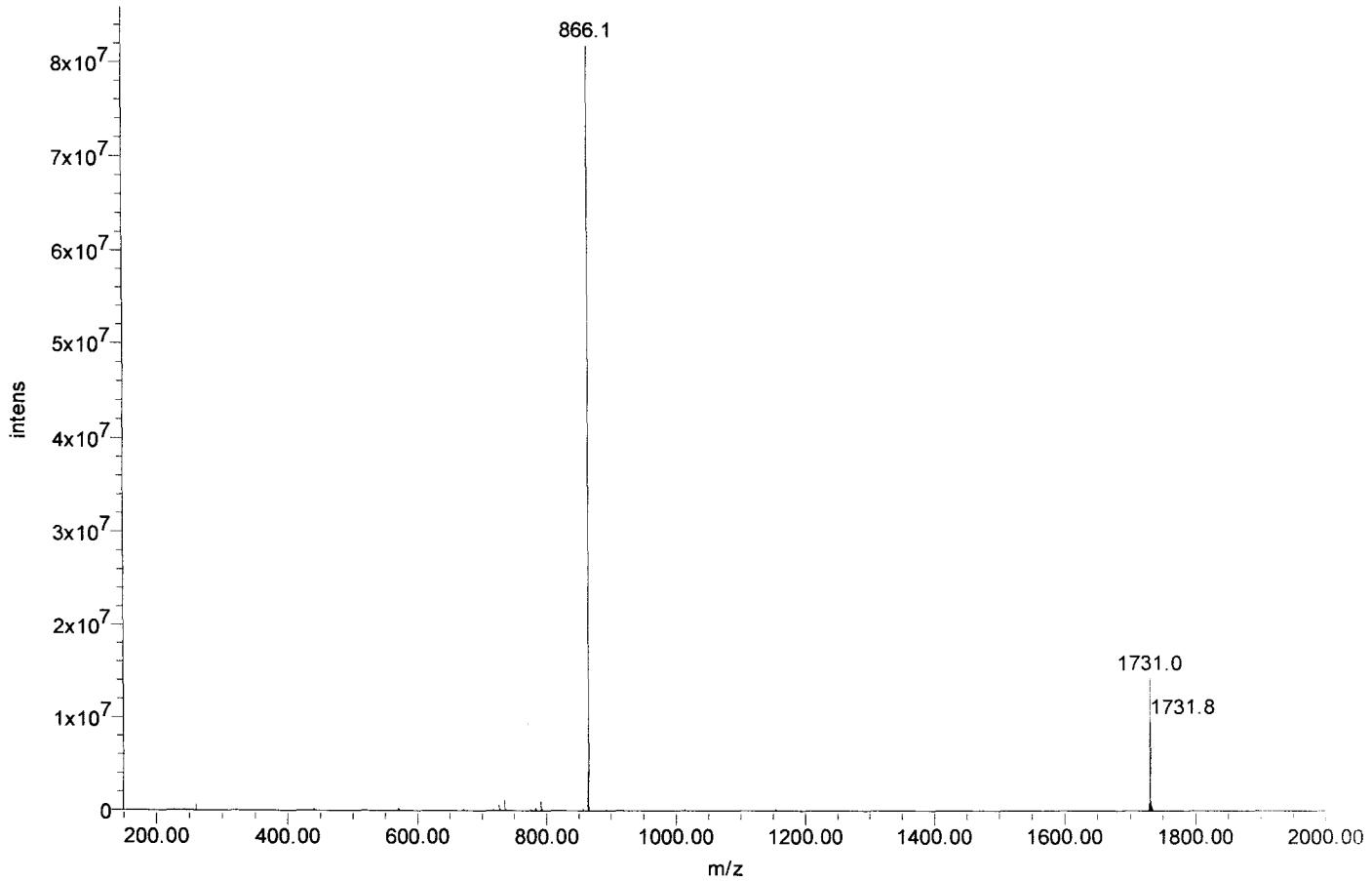


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.8	8.990	126222	5217
2	87.4	9.439	6084352	652135
3	1.9	9.730	131440	8738
4	1.5	10.340	103673	9102
5	7.4	10.929	517491	58214
Sum	100.00		6963178	733405.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344909      **Lot # :** SW05212T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 13:43:06 CST  
Expected MS : MW: 1729.9  
Acq. Method Set : Import  
Processing Method : 344909\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #170  
EQTTNQQAELEAFLM  
Cat#5879 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344910                   **Lot #:** SW05112T

**Sequence:** Glu-Gln-Thr-Thr-Asn-Gln-Gln-Ala-Glu-Leu-Glu-Ala-Phe-Leu-Met

**Molecular Weight:** 1752.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 76.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/19/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Leu	2.00	2.29		Phe	1.00	1.03	
Asx	1.00	0.99		Met	1.00	1.05		Thr	2.00	1.97	
Glx	6.00	5.66									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'.

Date: 05/21/08

Quality Control Department

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777 E. Evelyn Avenue  
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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

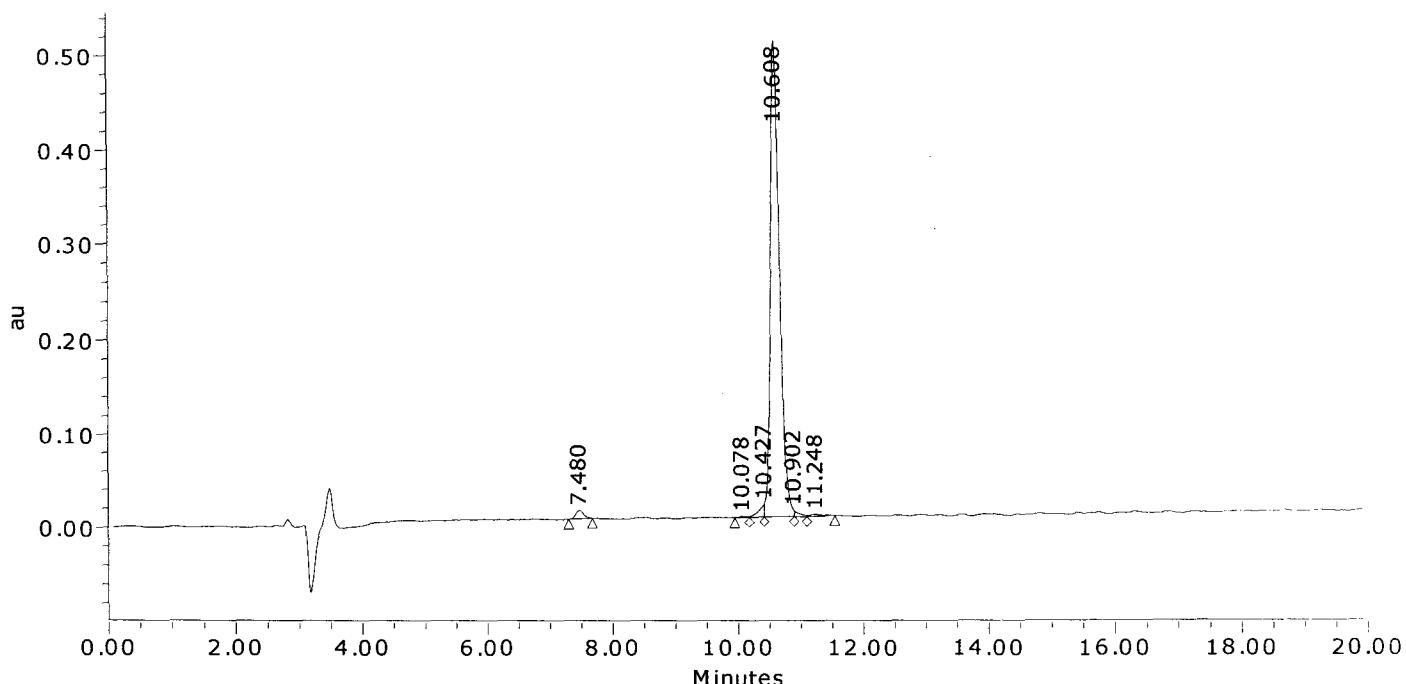
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344910/SW05112T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/19/2008 16:07:52 CST  
Sample ID: 344910 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344910\_A Final\_PDA  
Date Acquired: 5/19/2008 15:24:51 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

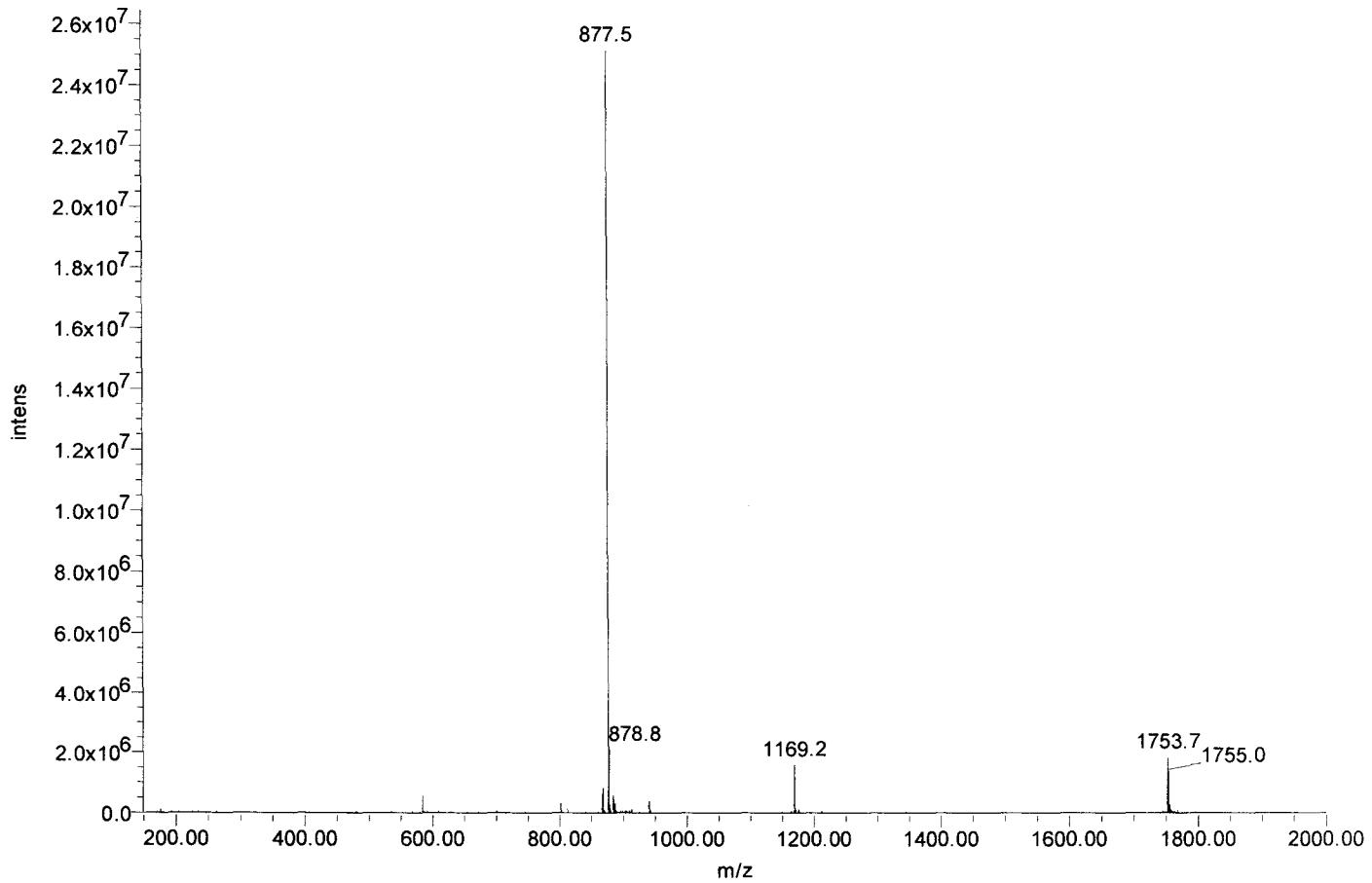


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	1.5	7.480	78711	8674
2	0.2	10.078	12322	1200
3	1.5	10.427	80074	13663
4	95.6	10.608	5119680	505263
5	0.7	10.902	36409	6563
6	0.5	11.248	28152	2280
<b>Sum</b>	<b>100.00</b>		<b>5355349</b>	<b>537642.0</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344910      **Lot # :** SW05112T      **Chemist :** Yan Li

Date Acquired : 5/19/2008 15:56:15 CST  
Expected MS : MW: 1752.9  
Acq. Method Set : Import  
Processing Method : 344910\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #171  
NQQAELEAFLMALID  
Cat#5880 Lot#/080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344911                   **Lot #:** SW05185T  
**Sequence:** Asn-Gln-Gln-Ala-Glu-Leu-Glu-Ala-Phe-Leu-Met-Ala-Leu-Thr-Asp  
**Molecular Weight:** 1693.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 93.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 87.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/23/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	3.00		Leu	3.00	3.04		Phe	1.00	0.99	
Asx	2.00	1.97		Met	1.00	1.01		Thr	1.00	1.02	
Glx	4.00	4.27									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/28/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

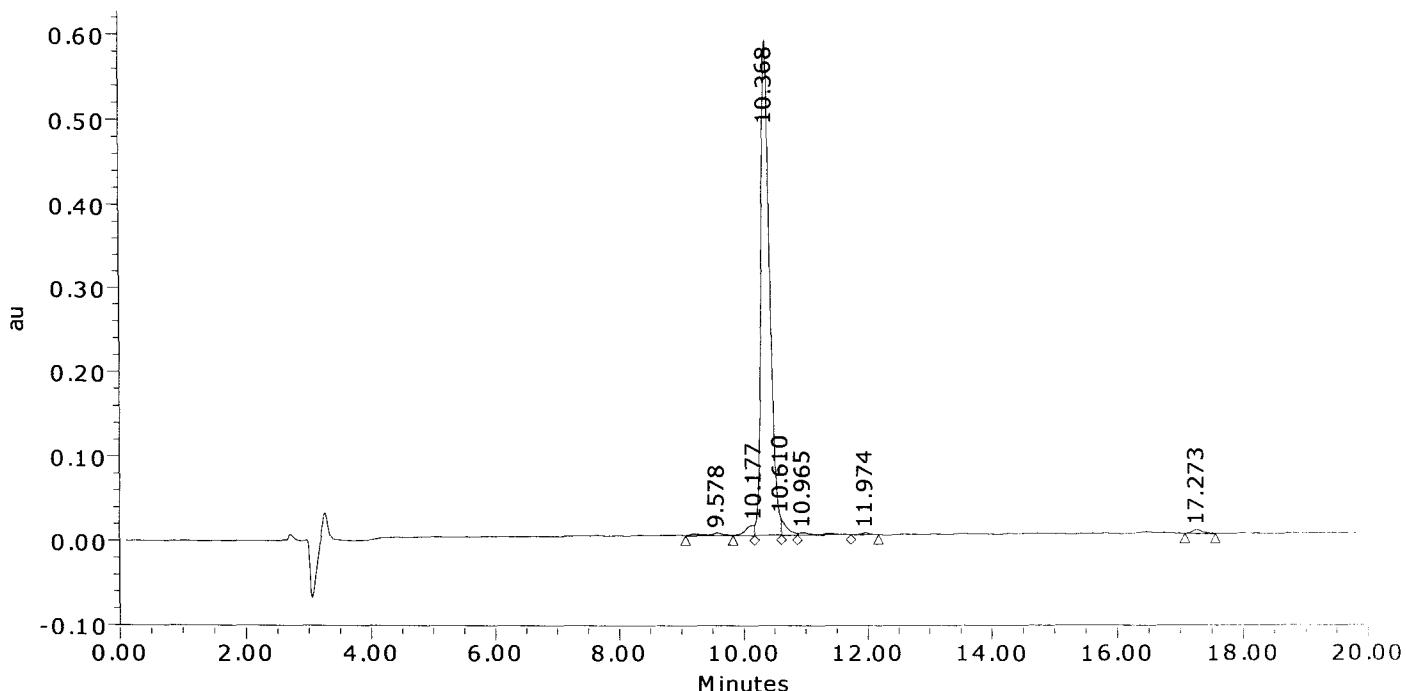
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344911/SW05185T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 11:39:09 CST  
Sample ID: 344911 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344911\_A Final\_PDA  
Date Acquired: 5/23/2008 18:56:19 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 34% -54% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.7	9.578	45143	2749
2	1.7	10.177	107497	11916
3	93.5	10.368	5743518	585855
4	2.0	10.610	124405	20385
5	0.9	10.965	56964	2672
6	0.4	11.974	21981	2122
7	0.7	17.273	43815	4113
<b>Sum</b>	<b>100.00</b>		<b>6143322</b>	<b>629812.6</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344911**

**Lot # : SW05185T**

**Chemist : Yan Li**

Date Acquired :

5/26/2008 16:34:12 CST

Expected MS :

MW: 1693.9

Acq. Method Set :

Import

Processing Method :

344911\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

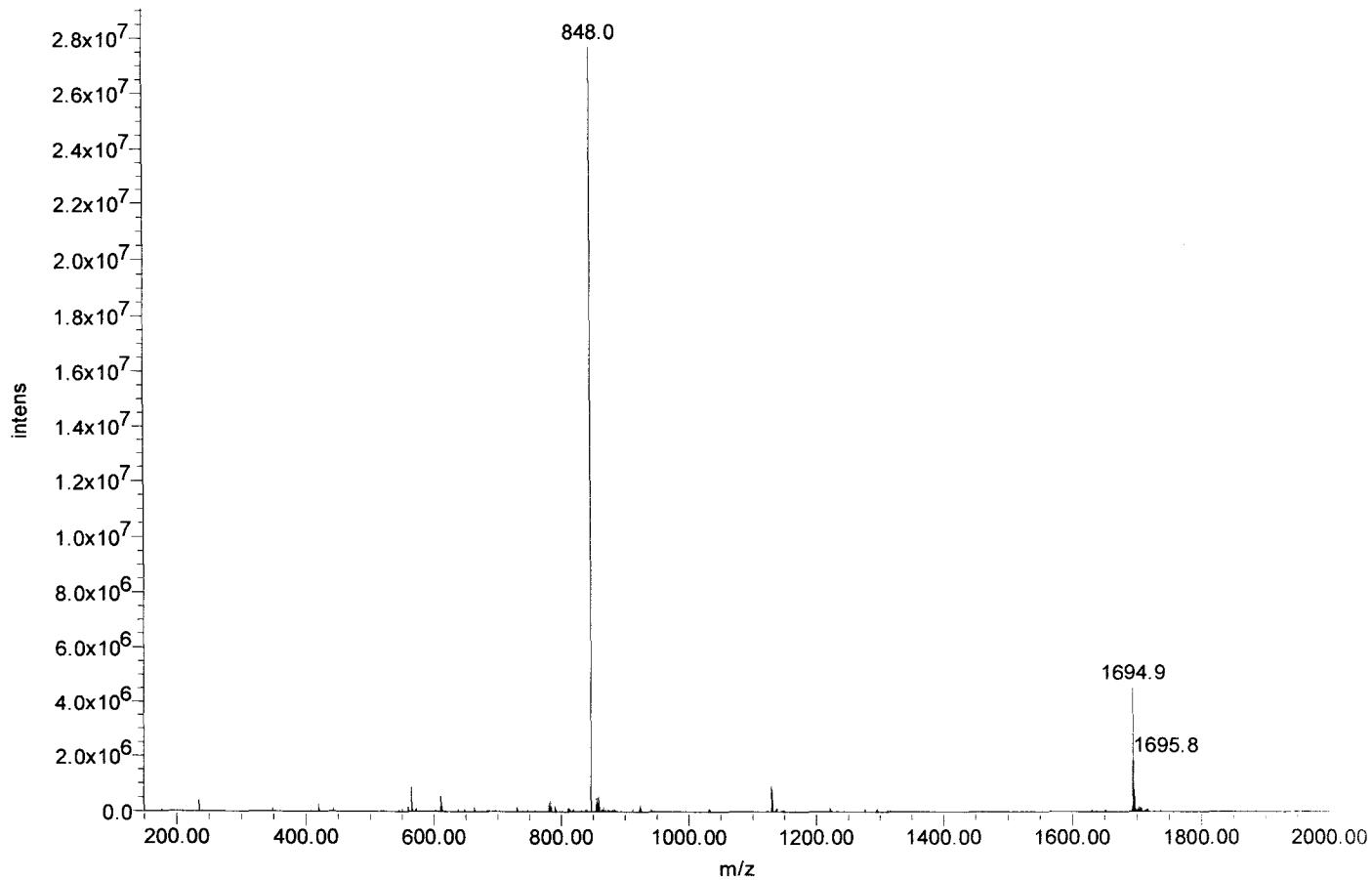
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #172  
ELEAFLMALTDSGPK  
Cat#5881 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344912                   **Lot #:** SW05118T

**Sequence:** Glu-Leu-Glu-Ala-Phe-Leu-Met-Ala-Leu-Thr-Asp-Ser-Gly-Pro-Lys

**Molecular Weight:** 1621.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.5%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.06		Leu	3.00	3.35		Pro	1.00	0.96	
Asx	1.00	1.00		Lys	1.00	1.01		Ser	1.00	0.82	
Glx	2.00	1.95		Met	1.00	1.02		Thr	1.00	0.97	
Gly	1.00	0.99		Phe	1.00	1.01					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/22/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

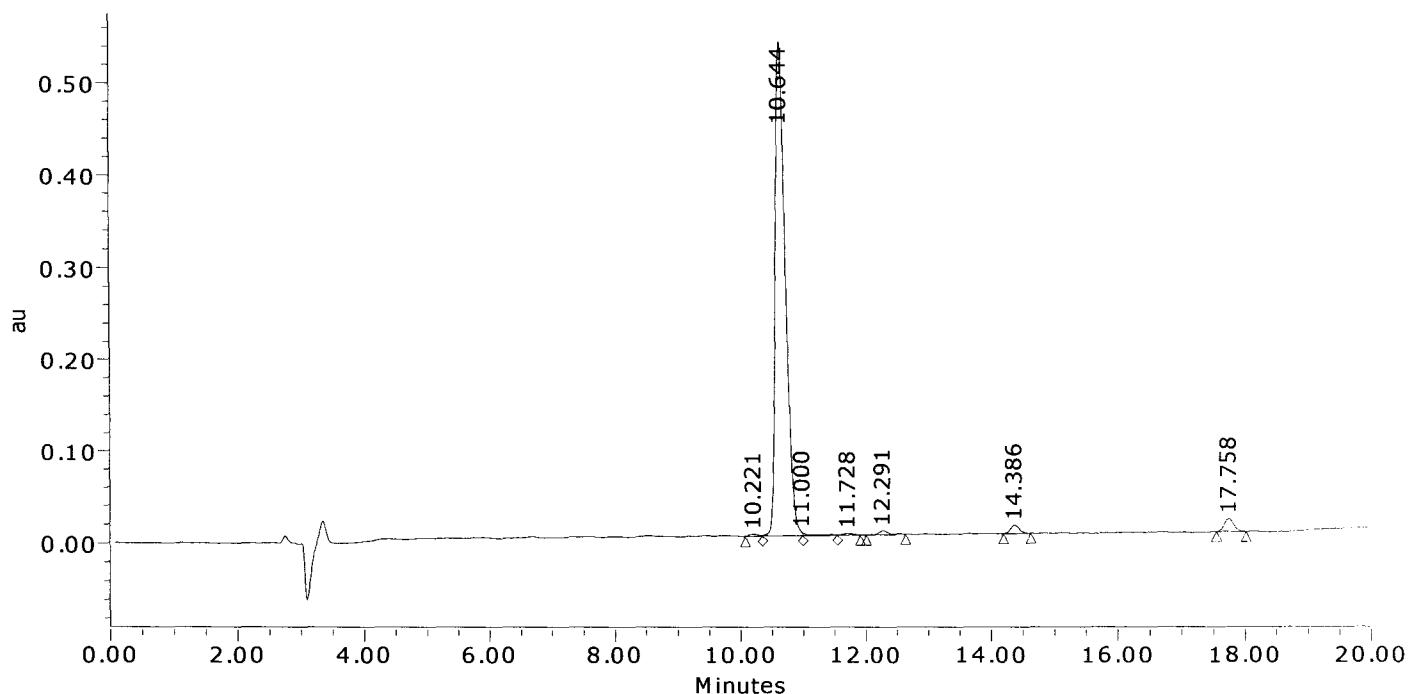
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344912/SW05118T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 11:10:36 CST  
Sample ID: 344912 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344912\_A Final\_PDA  
Date Acquired: 5/20/2008 9:47:58 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	10.221	22609	2126
2	94.5	10.644	6011975	536699
3	0.5	11.000	30423	3129
4	0.3	11.728	19894	1742
5	0.8	12.291	51624	4334
6	1.4	14.386	89270	8878
7	2.2	17.758	138337	13439
Sum	100.00		6364132	570347.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344912**

**Lot # : SW05118T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 9:47:58 CST

Expected MS :

MW: 1621.9

Acq. Method Set :

Import

Processing Method :

344912\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

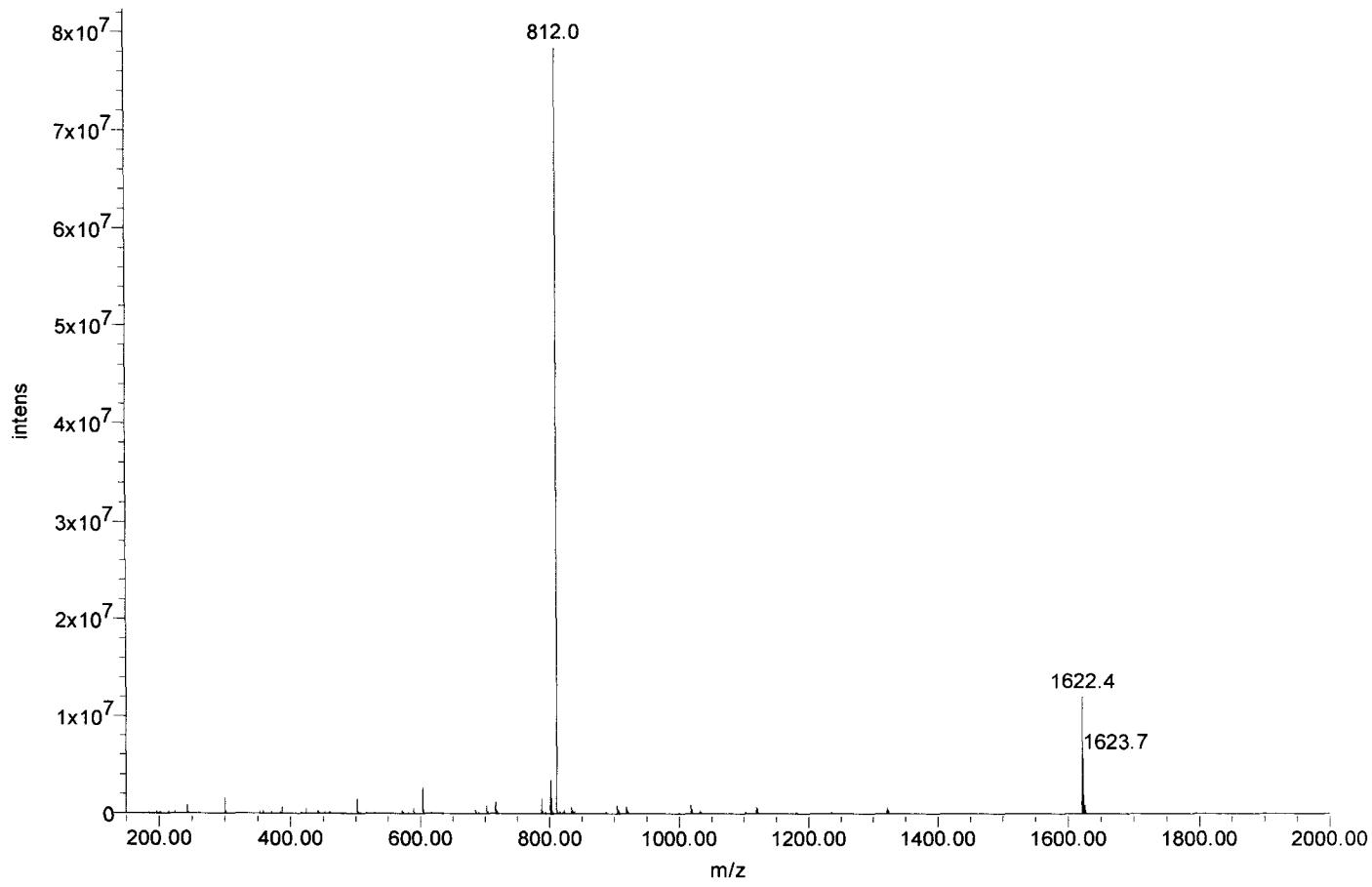
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #173  
FLMALTDGPKANII  
Cat#5882 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344913                   **Lot #:** SW05123T  
**Sequence:** Phe-Leu-Met-Ala-Leu-Thr-Asp-Ser-Gly-Pro-Lys-Ala-Asn-Ile-Ile  
**Molecular Weight:** 1590.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 91.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Leu	2.00	2.24		Pro	1.00	1.08	
Asx	2.00	1.94		Lys	1.00	0.96		Ser	1.00	0.84	
Gly	1.00	0.95		Met	1.00	1.00		Thr	1.00	0.98	
Ile	2.00	1.35	*1	Phe	1.00	0.99					

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/22/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

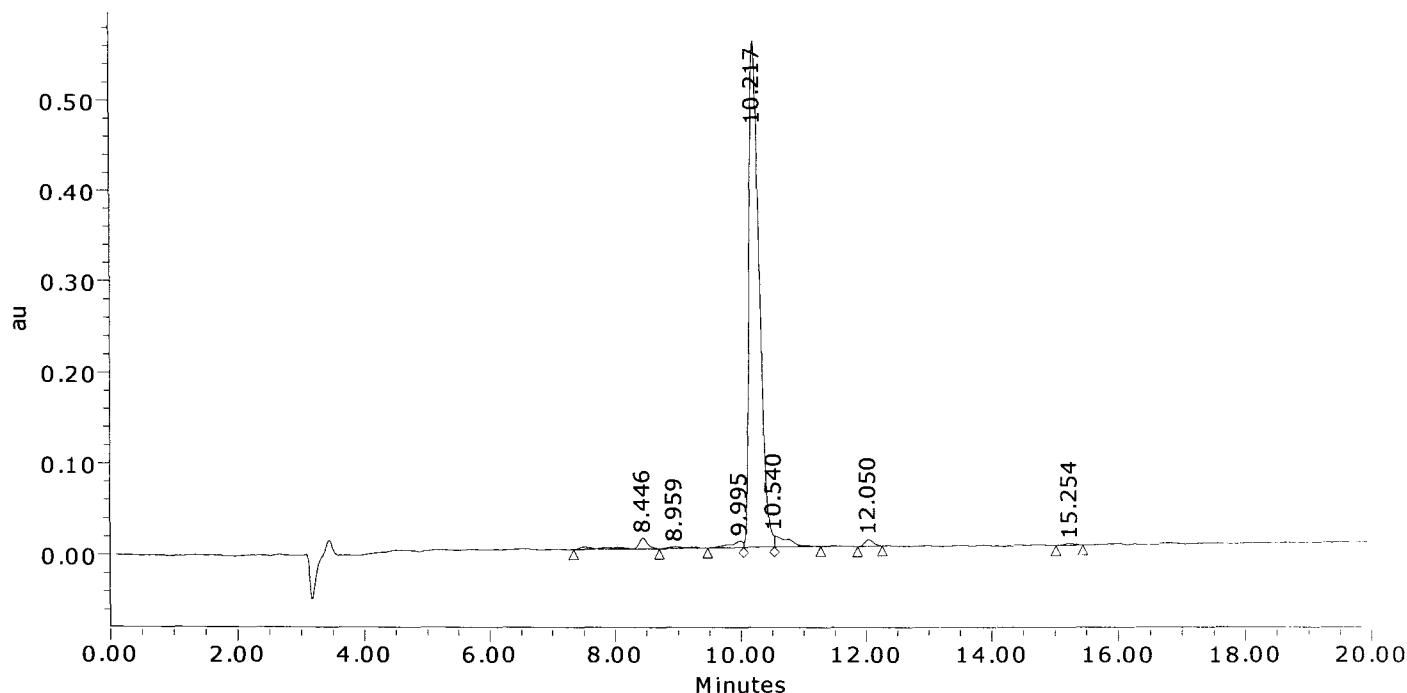
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344913/SW05123T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/20/2008 16:58:17 CST
Sample ID:	344913	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344913_A Final_PDA
Date Acquired:	5/20/2008 16:05:47 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	2.6	8.446	180942	11943
2	0.5	8.959	33592	1684
3	1.5	9.995	105035	7215
4	91.1	10.217	6244126	556946
5	2.8	10.540	193660	12253
6	1.0	12.050	71942	7366
7	0.3	15.254	23797	2041
<b>Sum</b>	<b>100.00</b>		<b>6853093</b>	<b>599446.7</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344913**

**Lot # : SW05123T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 16:33:07 CST

Expected MS :

MW: 1590.9

Acq. Method Set :

Import

Processing Method :

344913\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

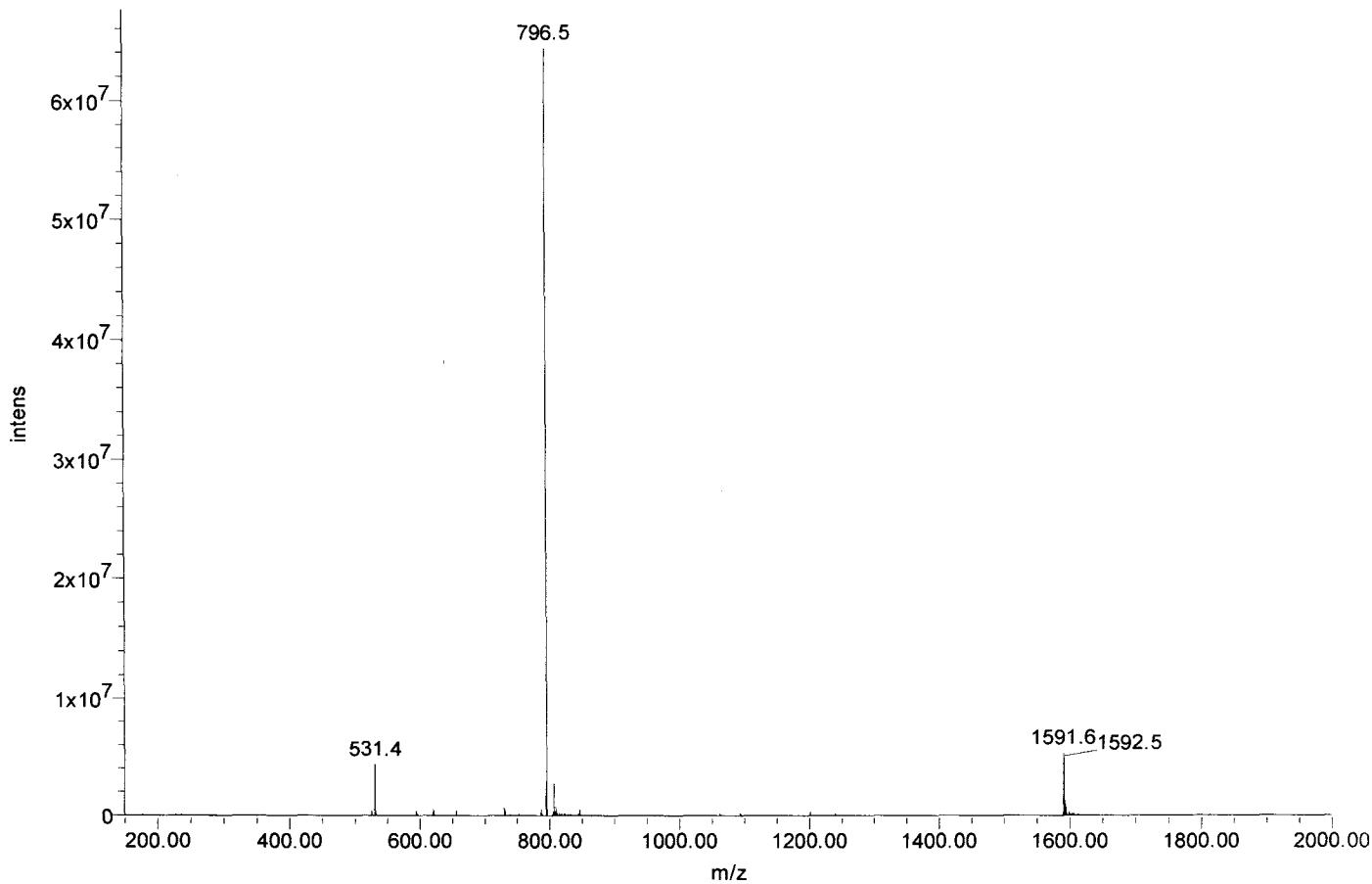
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #174  
LTDSGPKANIIVDSQ  
Cat#5883 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344914                   **Lot #:** SW05191T  
**Sequence:** Leu-Thr-Asp-Ser-Gly-Pro-Lys-Ala-Asn-Ile-Ile-Val-Asp-Ser-Gln  
**Molecular Weight:** 1557.7 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 89.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		Ile	2.00	1.25	*1	Ser	2.00	1.62	
Asx	3.00	3.04		Leu	1.00	1.03		Thr	1.00	0.97	
Glx	1.00	1.00		Lys	1.00	1.02		Val	1.00	0.96	
Gly	1.00	1.00		Pro	1.00	1.07					

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yonr Li Date: 05/28/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
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Tel: 760-597-8820 Fax: 760-597-8816

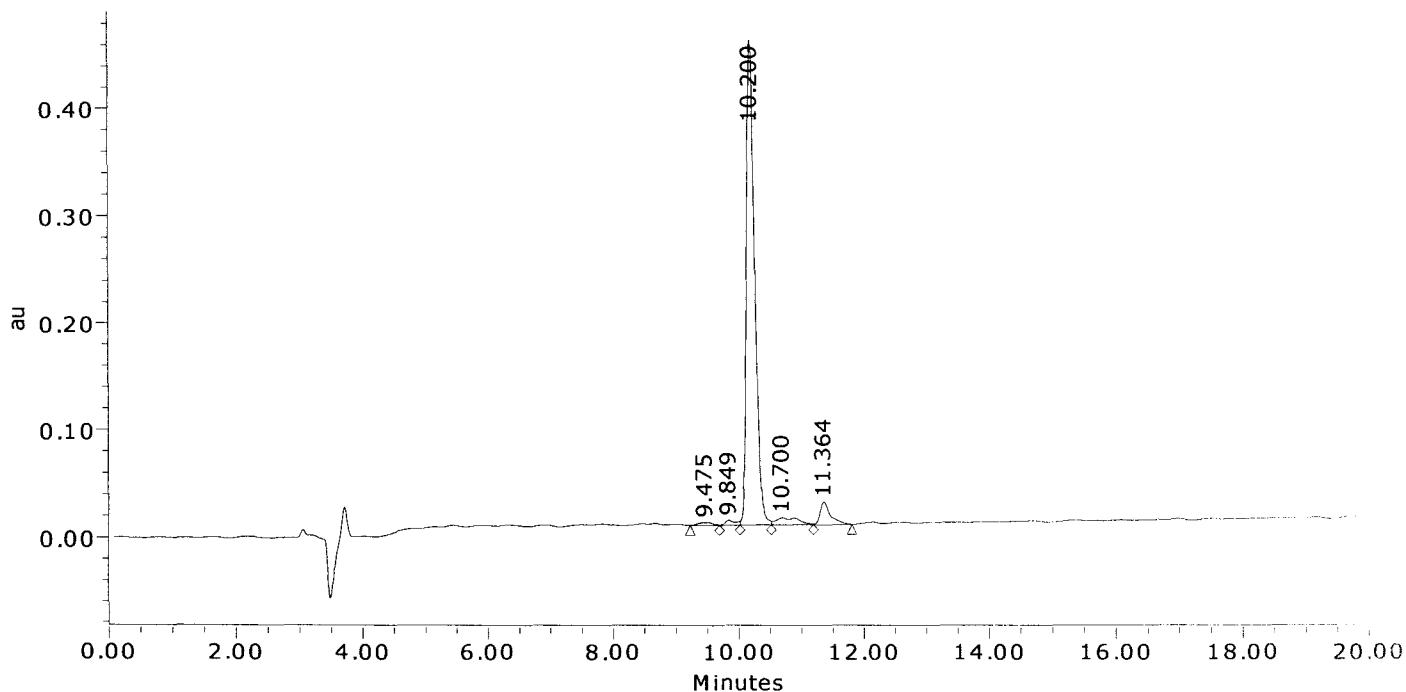
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344914/SW05191T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters.lmf\2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 15:31:41 CST  
Sample ID: 344914 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344914\_A Final\_PDA  
Date Acquired: 5/27/2008 14:58:32 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.8	9.475	38130	2443
2	1.0	9.849	45611	3933
3	89.4	10.200	4127298	453052
4	3.6	10.700	165389	6421
5	5.2	11.364	239453	21123
<b>Sum</b>	<b>100.00</b>		<b>4615881</b>	<b>486972.5</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344914

Lot # : SW05191T

Chemist : Yan Li

Date Acquired :

5/27/2008 14:58:32 CST

Expected MS :

MW: 1557.7

Acq. Method Set :

Import

Processing Method :

344914\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

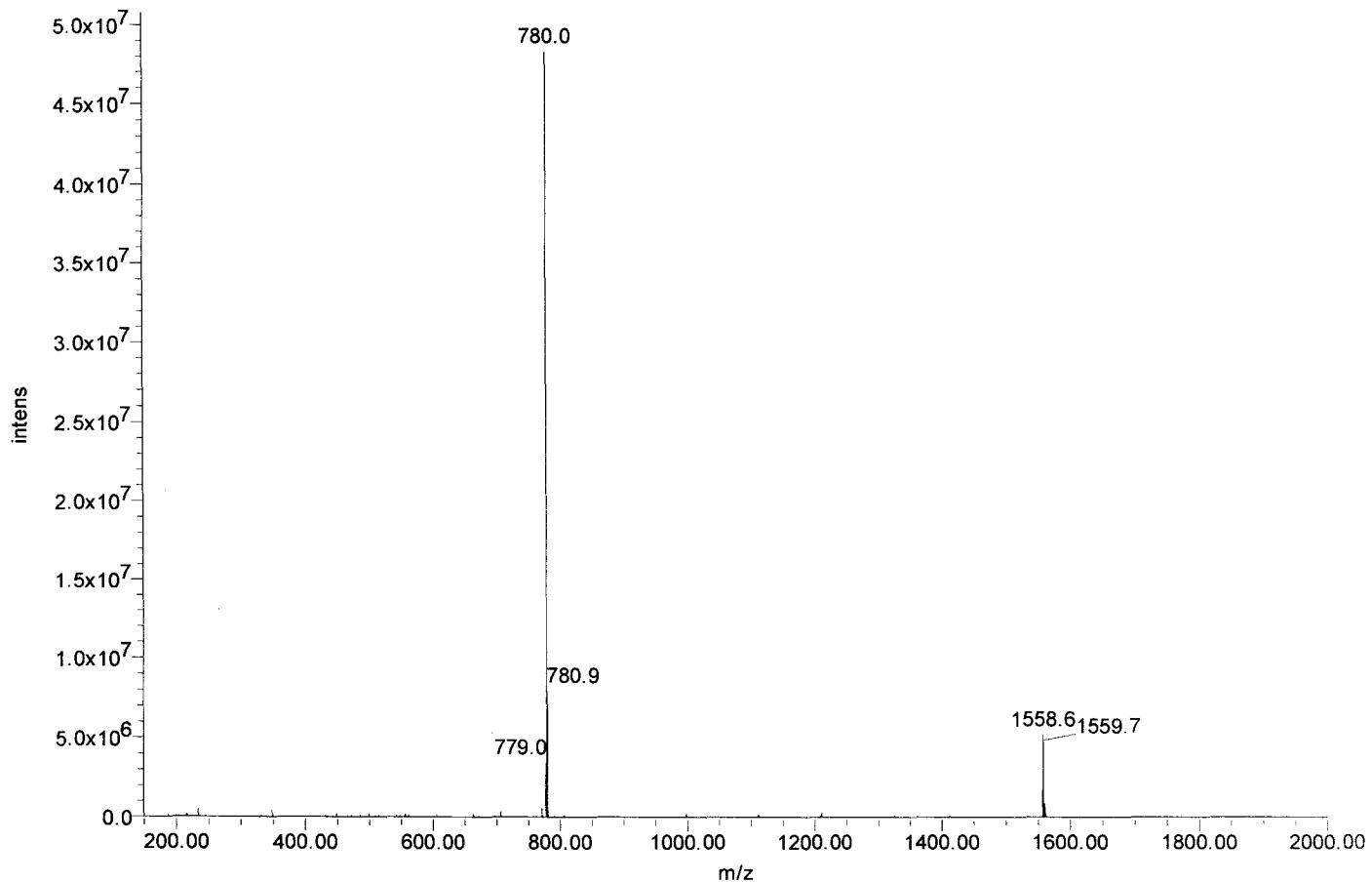
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #175  
GPKANIIVDSQYVMG  
Cat#5884 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344915                   **Lot #:** SW05099T  
**Sequence:** Gly-Pro-Lys-Ala-Asn-Ile-Ile-Val-Asp-Ser-Gln-Tyr-Val-Met-Gly  
**Molecular Weight:** 1591.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile and 2% Formic Acid in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 72.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/16/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		Ile	2.00	1.20	*1	Ser	1.00	0.80	
Asx	2.00	2.03		Lys	1.00	1.00		Tyr	1.00	1.06	
Glx	1.00	1.00		Met	1.00	1.01		Val	2.00	1.87	
Gly	2.00	2.01		Pro	1.00	1.03					

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/21/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

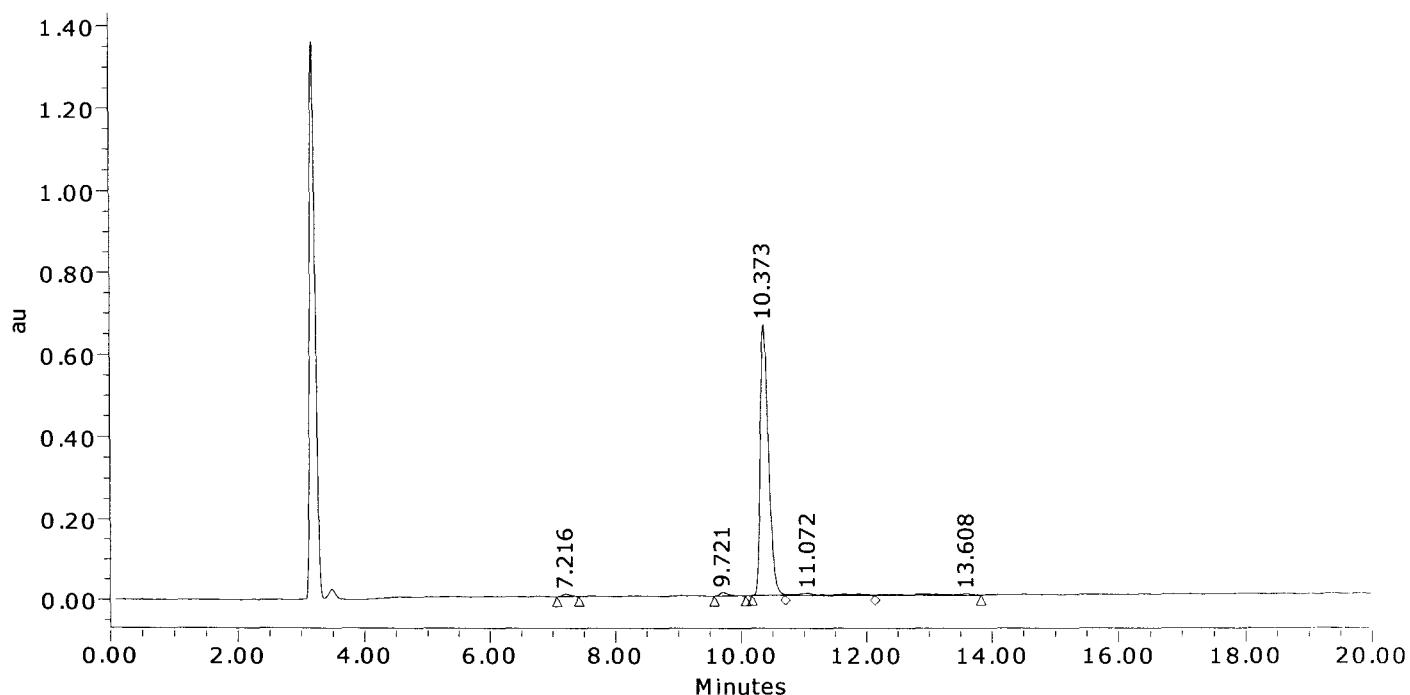
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344915/SW05099T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 13:35:14 CST  
Sample ID: 344915 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344915\_A Final\_PDA  
Date Acquired: 5/20/2008 12:31:43 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.8	7.216	55505	6437
2	1.4	9.721	91329	8950
3	92.3	10.373	6081542	662409
4	2.8	11.072	183339	4849
5	2.7	13.608	175379	3282
Sum	100.00		6587093	685927.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344915**

**Lot # : SW05099T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 12:31:43 CST

Expected MS :

MW: 1591.9

Acq. Method Set :

Import

Processing Method :

344915\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

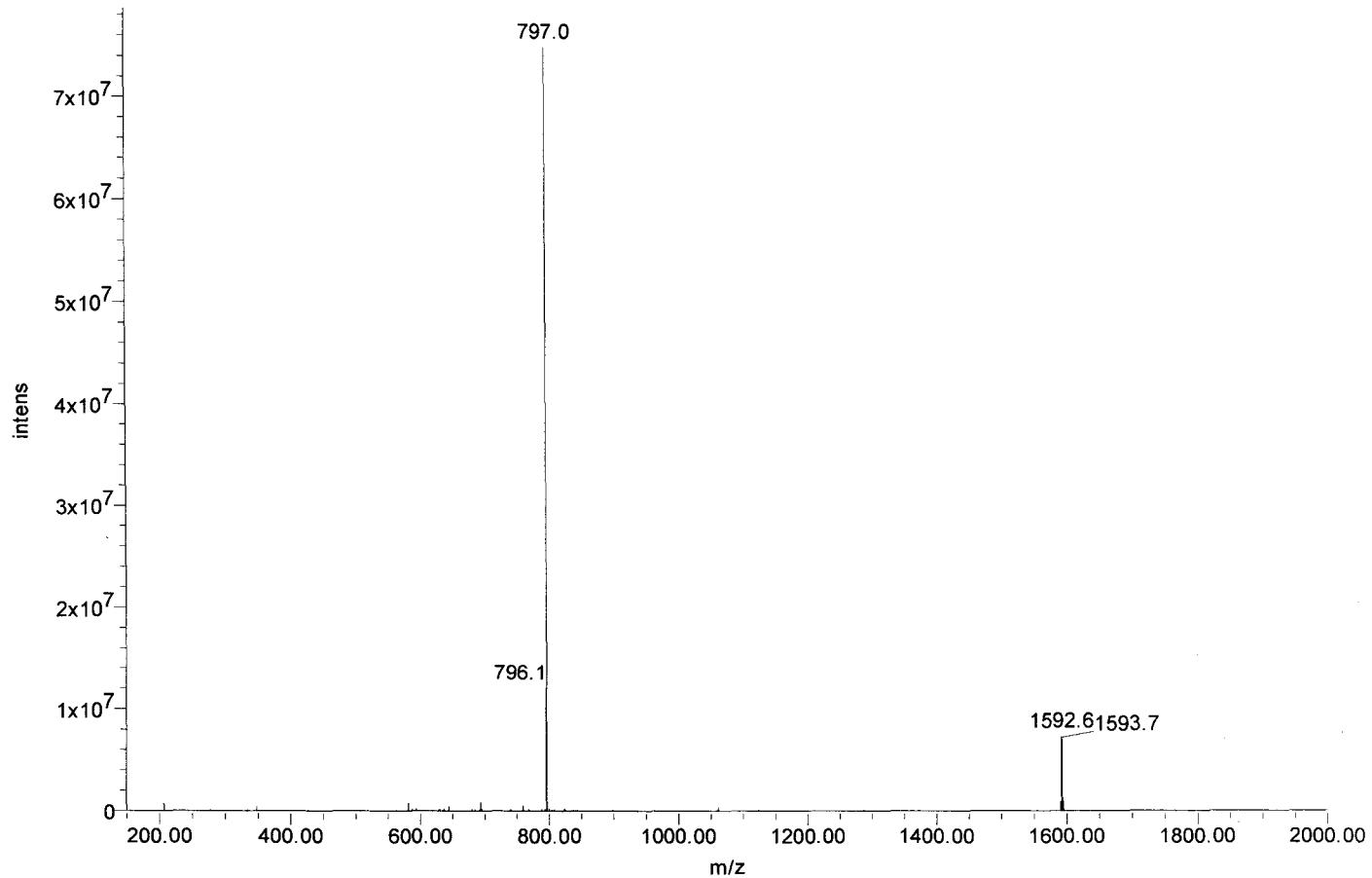
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #176  
NIIVDSQYVMGIIIG  
Cat#5885 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344916                   **Lot #:** SW05239T  
**Sequence:** Asn-Ile-Ile-Val-Asp-Ser-Gln-Tyr-Val-Met-Gly-Ile-Ile-Thr-Gly  
**Molecular Weight:** 1622.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 84.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.1% Ammonia and 30% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 77.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		Ile	4.00	2.49	*1	Thr	1.00	1.02	
Glx	1.00	1.00		Met	1.00	1.05		Tyr	1.00	0.99	
Gly	2.00	2.15		Ser	1.00	0.85		Val	2.00	1.92	

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink that reads 'Yanz Li'.

Date: 06/05/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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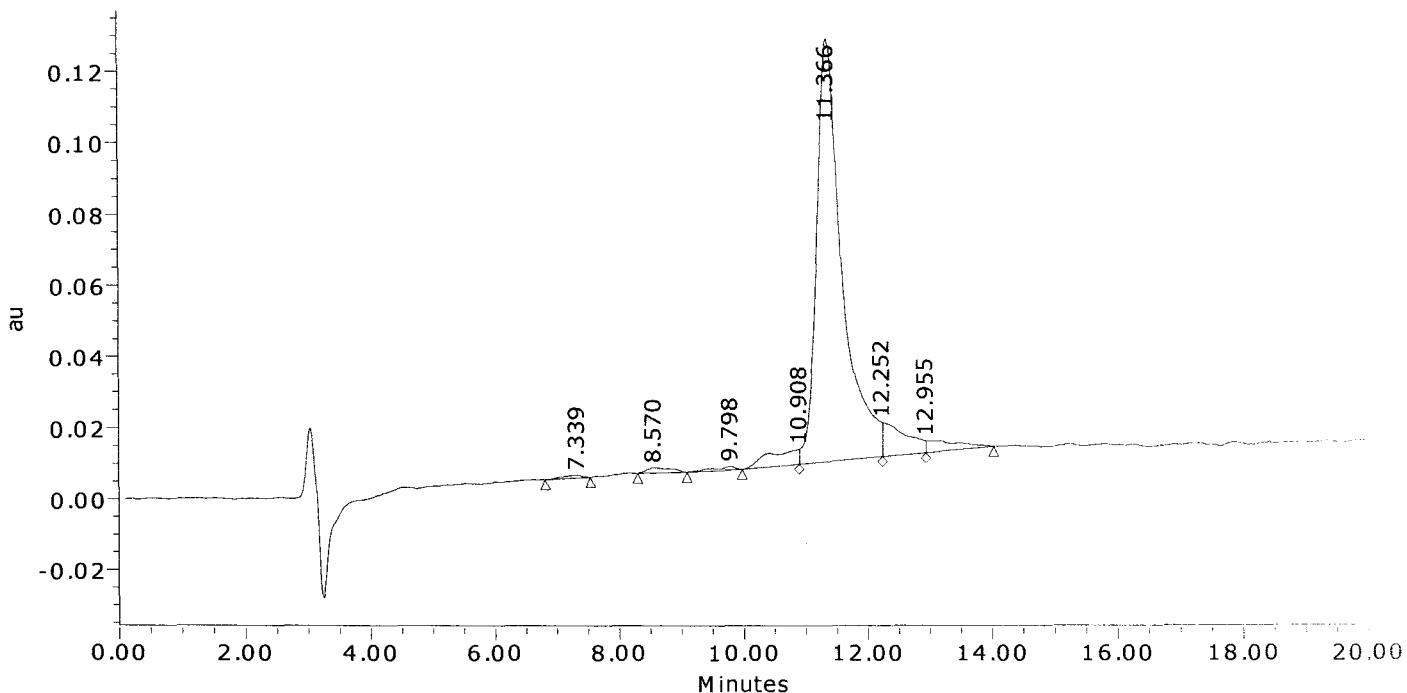
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344916/SW05239T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/4/2008 15:28:43 CST  
Sample ID: 344916 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344916\_A Final\_PDA  
Date Acquired: 6/4/2008 14:41:37 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: PLRP-S, 4.6 x 250 mm, 8 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	7.339	19674	830
2	1.0	8.570	39717	1449
3	0.7	9.798	26750	991
4	3.8	10.908	153944	4247
5	84.8	11.366	3392578	118528
6	6.5	12.252	258279	9514
7	2.8	12.955	110193	3358
Sum	100.00		4001133	138917.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

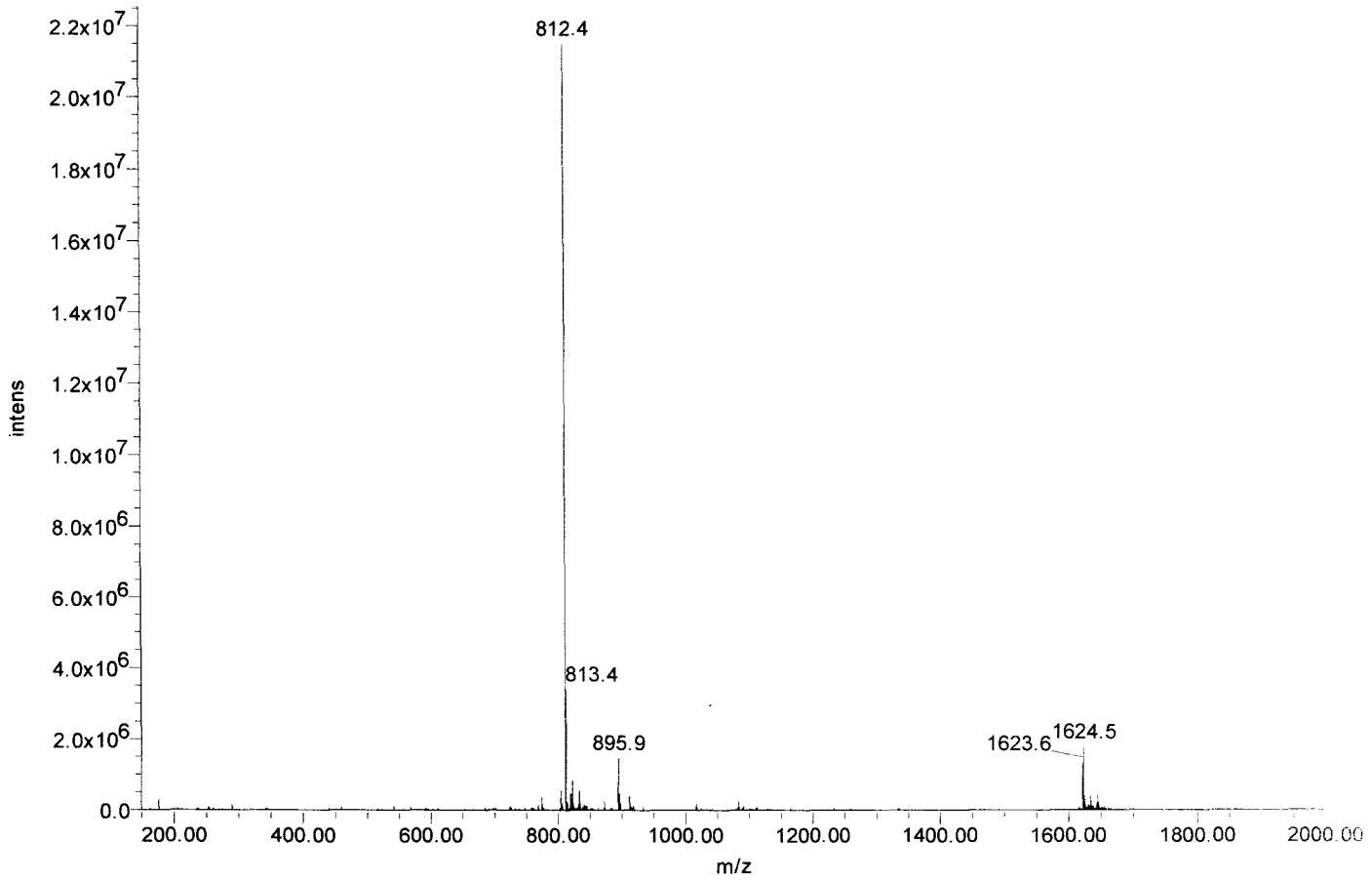
**Sample ID:**

**344916**

**Lot # : SW05239T**

**Chemist : Yan Li**

Date Acquired : 6/4/2008 16:13:36 CST  
Expected MS : MW: 1622.9  
Acq. Method Set : Import  
Processing Method : 344916\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #177  
DSQYVMGIITGCPTE  
Cat#5886 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344917                   **Lot #:** SW05226T

**Sequence:** Asp-Ser-Gln-Tyr-Val-Met-Gly-Ile-Ile-Thr-Gly-Cys-Pro-Thr-Glu

**Molecular Weight:** 1613.8 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 89.8%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 87.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.05		Ile	2.00	1.28	*2	Thr	2.00	1.97	
Cys	1.00	0.00	*1	Met	1.00	1.09		Tyr	1.00	1.04	
Glx	2.00	2.00		Pro	1.00	0.90		Val	1.00	1.03	
Gly	2.00	2.20		Ser	1.00	0.87					

\*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/02/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

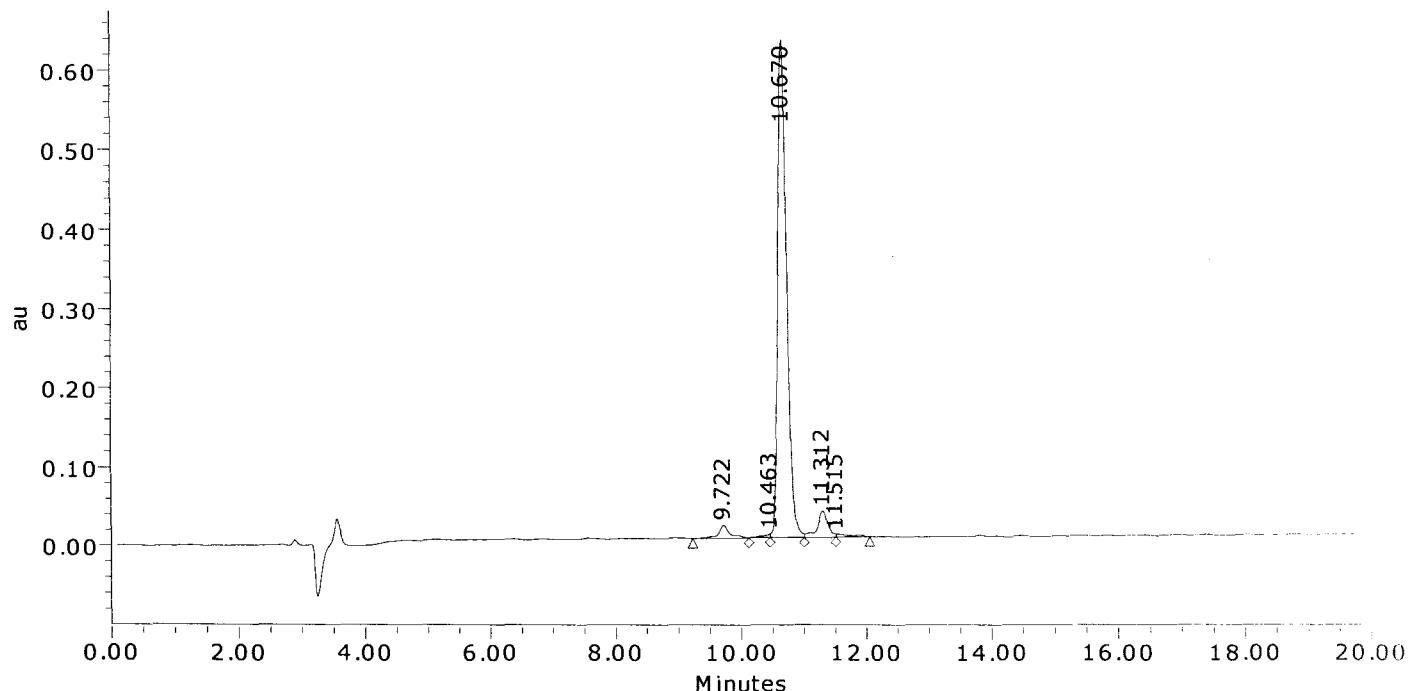
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344917/SW05226T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 12:20:04 CST  
Sample ID: 344917 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344917\_A Final\_PDA  
Date Acquired: 5/28/2008 11:21:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	3.0	9.722	205610	16534
2	0.5	10.463	34482	4497
3	89.8	10.670	6172165	628474
4	5.8	11.312	401865	34321
5	0.9	11.515	59675	3359
Sum	100.00		6873797	687185.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344917

Lot # : SW05226T

Chemist : Yan Li

Date Acquired :

5/28/2008 13:22:39 CST

Expected MS :

MW: 1613.8

Acq. Method Set :

Import

Processing Method :

344917\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

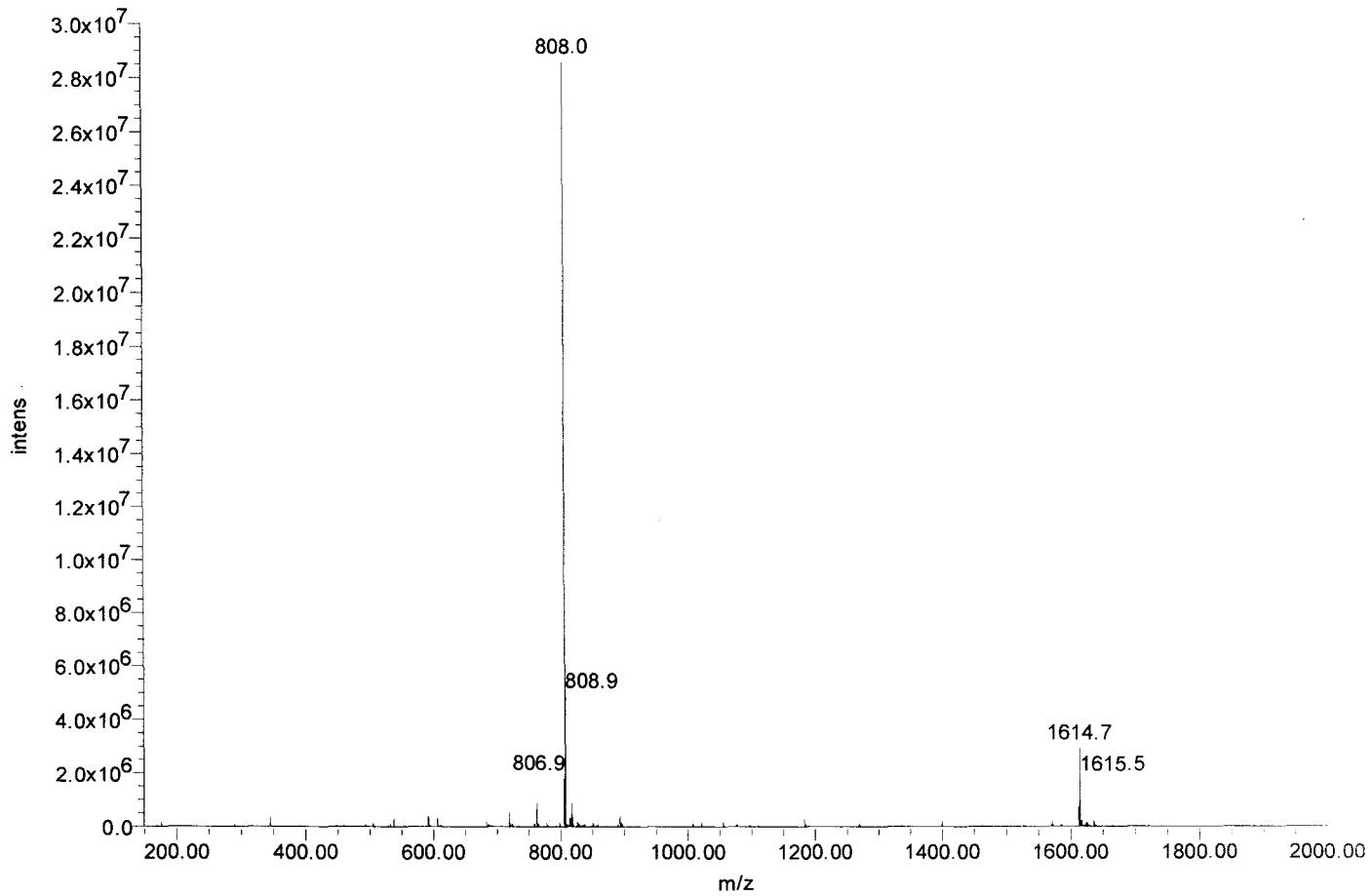
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #178  
VMGIITGCPTESR  
Cat#5887 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344918                   **Lot #:** SW05137T  
**Sequence:** Val-Met-Gly-Ile-Ile-Thr-Gly-Cys-Pro-Thr-Glu-Ser-Glu-Ser-Arg  
**Molecular Weight:** 1579.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.01		Ile	2.00	1.29	*2	Ser	2.00	1.72	
Cys	1.00	0.00	*1	Met	1.00	1.05		Thr	2.00	1.95	
Glx	2.00	2.00		Pro	1.00	0.96		Val	1.00	1.03	
Gly	2.00	2.12									

\*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/25/08  
Quality Control Department

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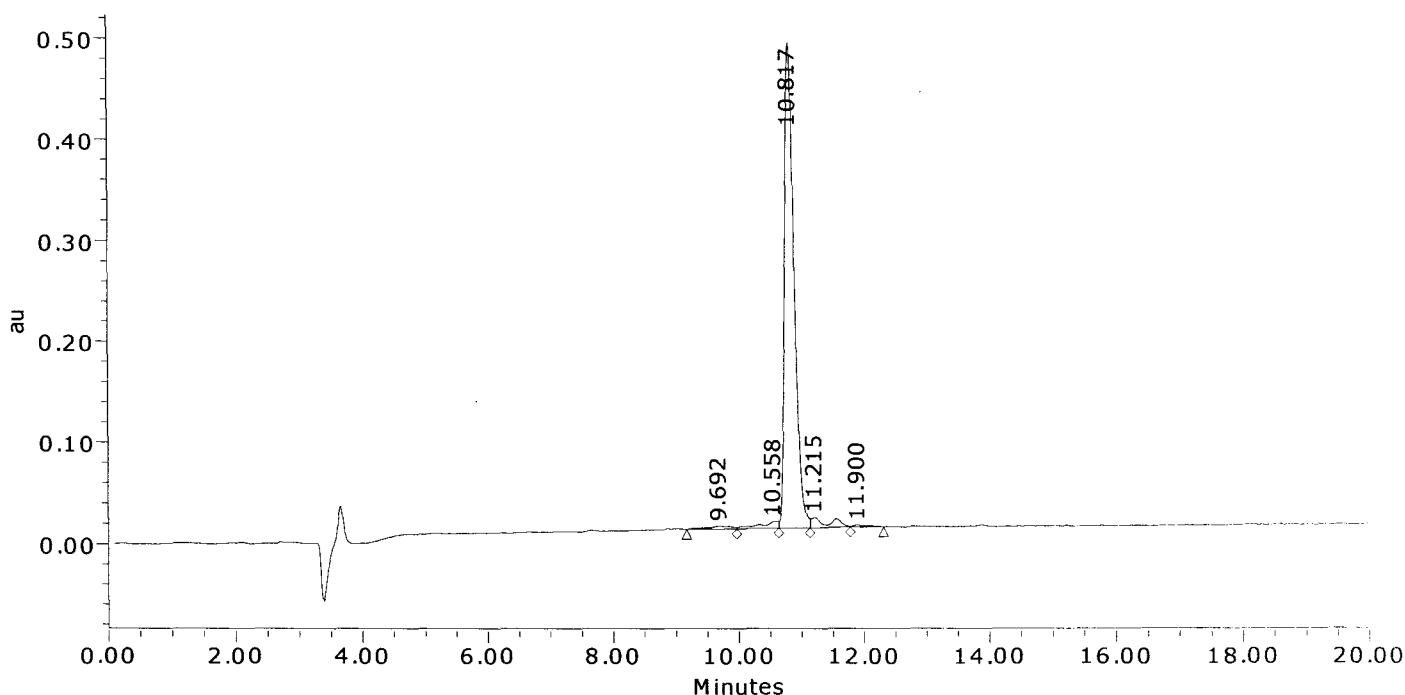
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344918/SW05137T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/22/2008 14:36:40 CST
Sample ID:	344918	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344918_A Final_PDA
Date Acquired:	5/22/2008 13:36:04 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18%-38% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



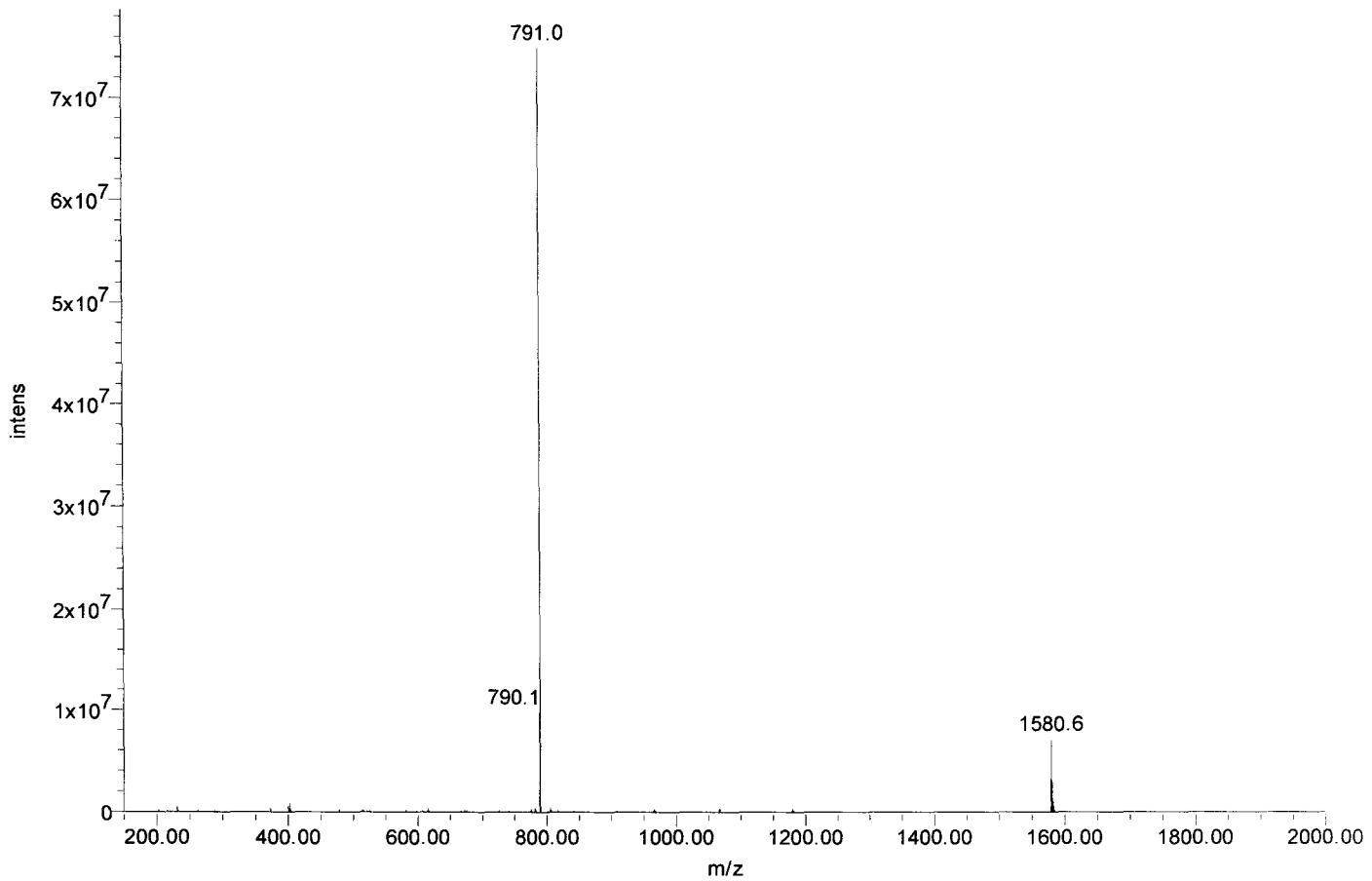
	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.5	9.692	80955	3028
2	2.4	10.558	130320	6369
3	92.1	10.817	5074892	479467
4	3.6	11.215	197483	9826
5	0.5	11.900	27746	1813
<b>Sum</b>	<b>100.00</b>		<b>5511396</b>	<b>500502.2</b>

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 344918      **Lot # :** SW05137T      **Chemist :** Yan Li

Date Acquired : 5/22/2008 13:36:04 CST  
Expected MS : MW: 1579.8  
Acq. Method Set : Import  
Processing Method : 344918\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #179  
ITGCPTESSESRLVNQ  
Cat#5888 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344919                   **Lot #:** SW05133T  
**Sequence:** Ile-Thr-Gly-Cys-Pro-Thr-Glu-Ser-Glu-Ser-Arg-Leu-Val-Asn-Gln  
**Molecular Weight:** 1633.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 84.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Gly	1.00	0.98	Ser	2.00	1.65
Asx	1.00	0.99		Ile	1.00	0.93	Thr	2.00	1.80
Cys	1.00	0.00	*1	Leu	1.00	1.04	Val	1.00	1.00
Glx	3.00	2.88		Pro	1.00	0.92			

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/25/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

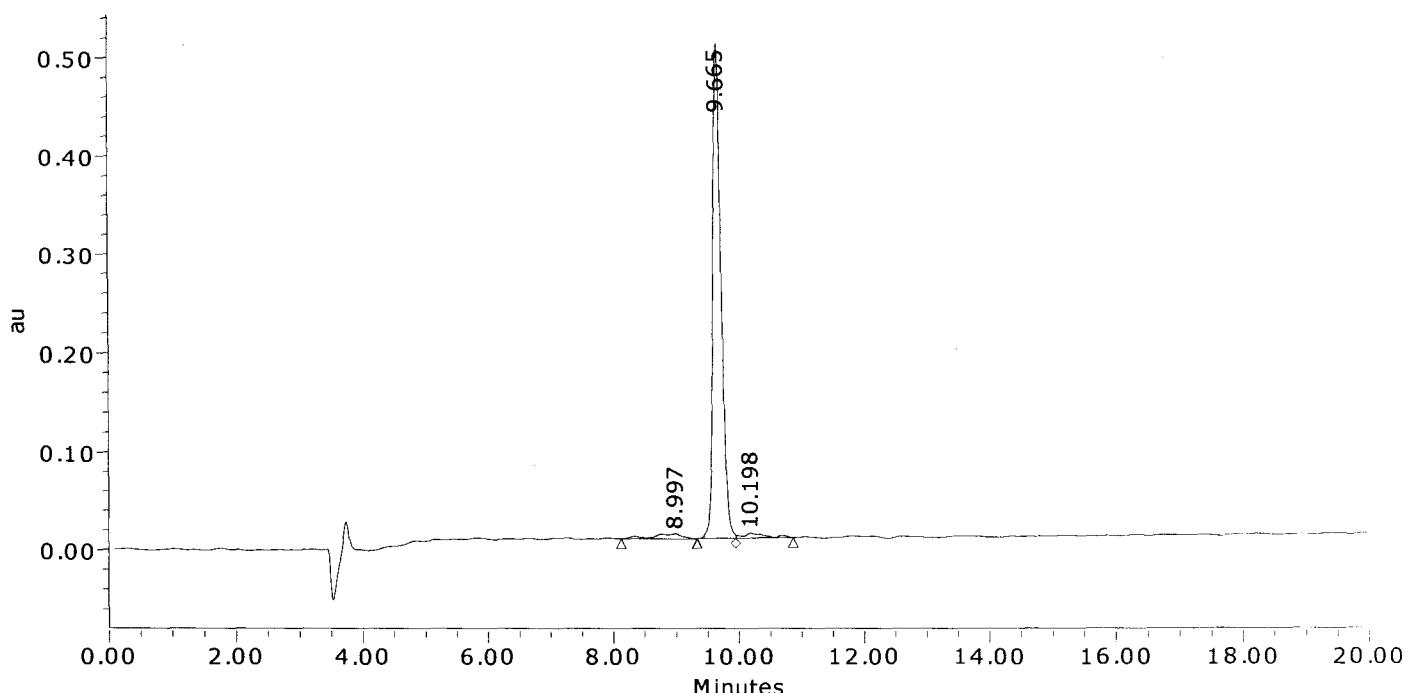
1-2-1 Kubogacka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344919/SW05133T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/22/2008 16:01:30 CST
Sample ID:	344919	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344919_A Final_PDA
Date Acquired:	5/22/2008 15:13:26 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14%-34% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	3.1	8.997	153092	4940
2	94.5	9.665	4617867	502454
3	2.4	10.198	118196	4961
<b>Sum</b>	<b>100.00</b>		<b>4889155</b>	<b>512355.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344919

Lot # : SW05133T

Chemist : Yan Li

Date Acquired :

5/22/2008 15:13:26 CST

Expected MS :

MW: 1633.8

Acq. Method Set :

Import

Processing Method :

344919\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

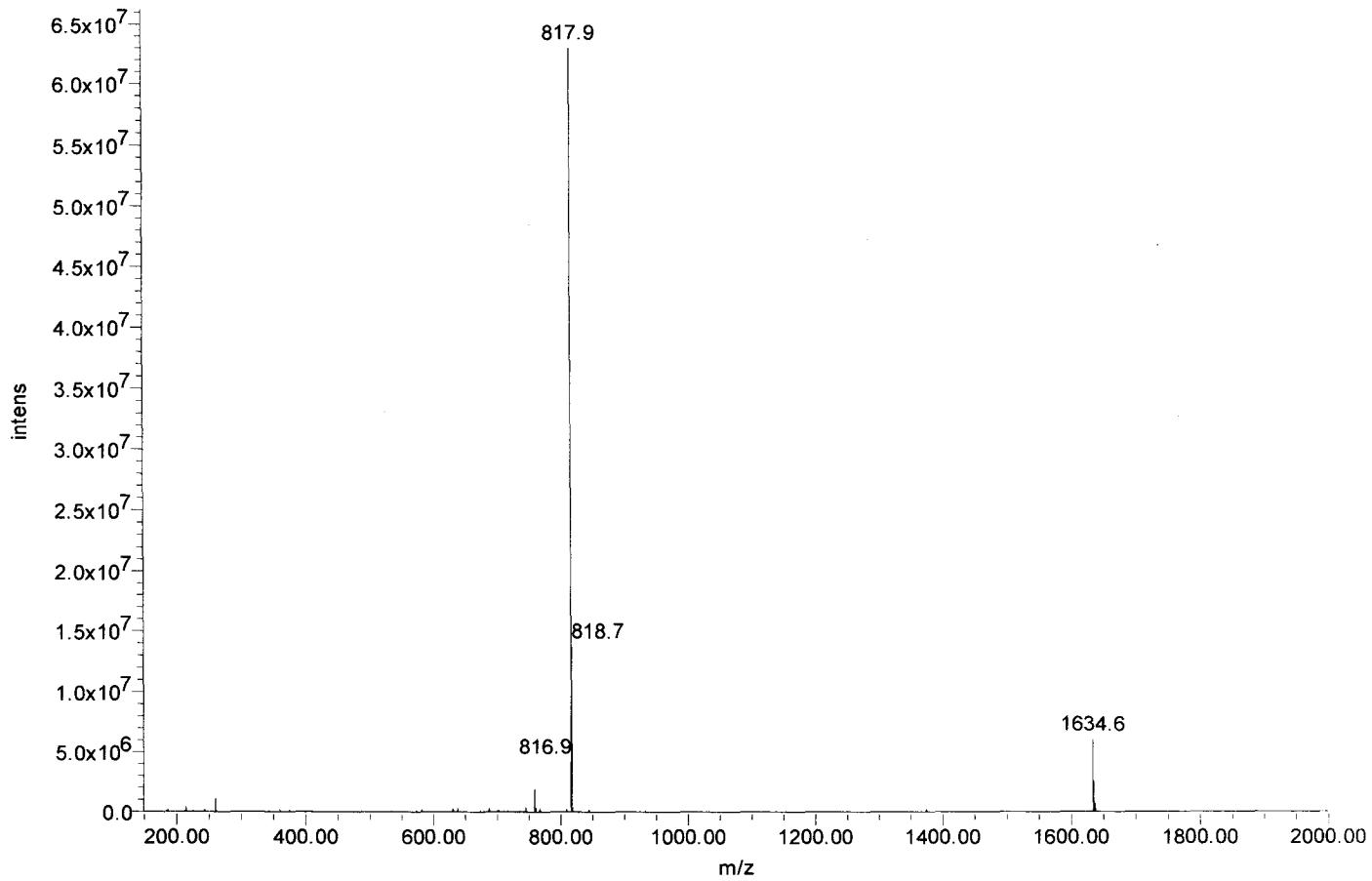
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #180  
PTESESRLVNQIEE  
Cat#5889 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344920      **Lot #:** SW05124T  
**Sequence:** Pro-Thr-Glu-Ser-Glu-Ser-Arg-Leu-Val-Asn-Gln-Ile-Ile-Glu-Glu  
**Molecular Weight:** 1743.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 93.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 87.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.99		Ile	2.00	1.43	*1	Ser	2.00	1.63	
Asx	1.00	1.00		Leu	1.00	1.05		Thr	1.00	0.93	
Glx	5.00	4.83		Pro	1.00	0.86		Val	1.00	1.01	

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Yanz Li

Date: 05/22/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

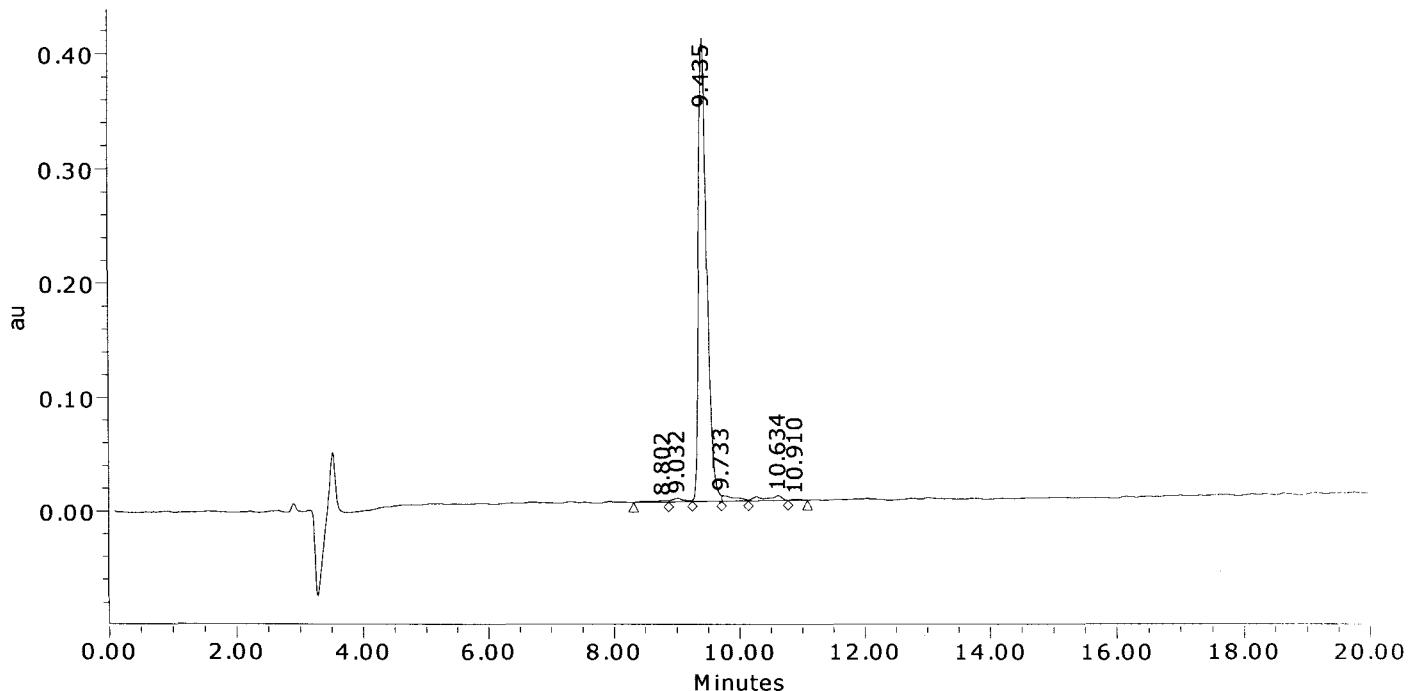
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344920/SW05124T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 14:31:32 CST  
Sample ID: 344920 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344920\_A Final\_PDA  
Date Acquired: 5/20/2008 13:15:10 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	8.802	23149	1319
2	1.0	9.032	40430	2978
3	93.8	9.435	3696023	405069
4	1.9	9.733	76397	4858
5	2.3	10.634	91882	4396
6	0.3	10.910	11689	1098
Sum	100.00		3939570	419718.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344920**

**Lot # : SW05124T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 13:15:10 CST

Expected MS :

MW: 1743.9

Acq. Method Set :

Import

Processing Method :

344920\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

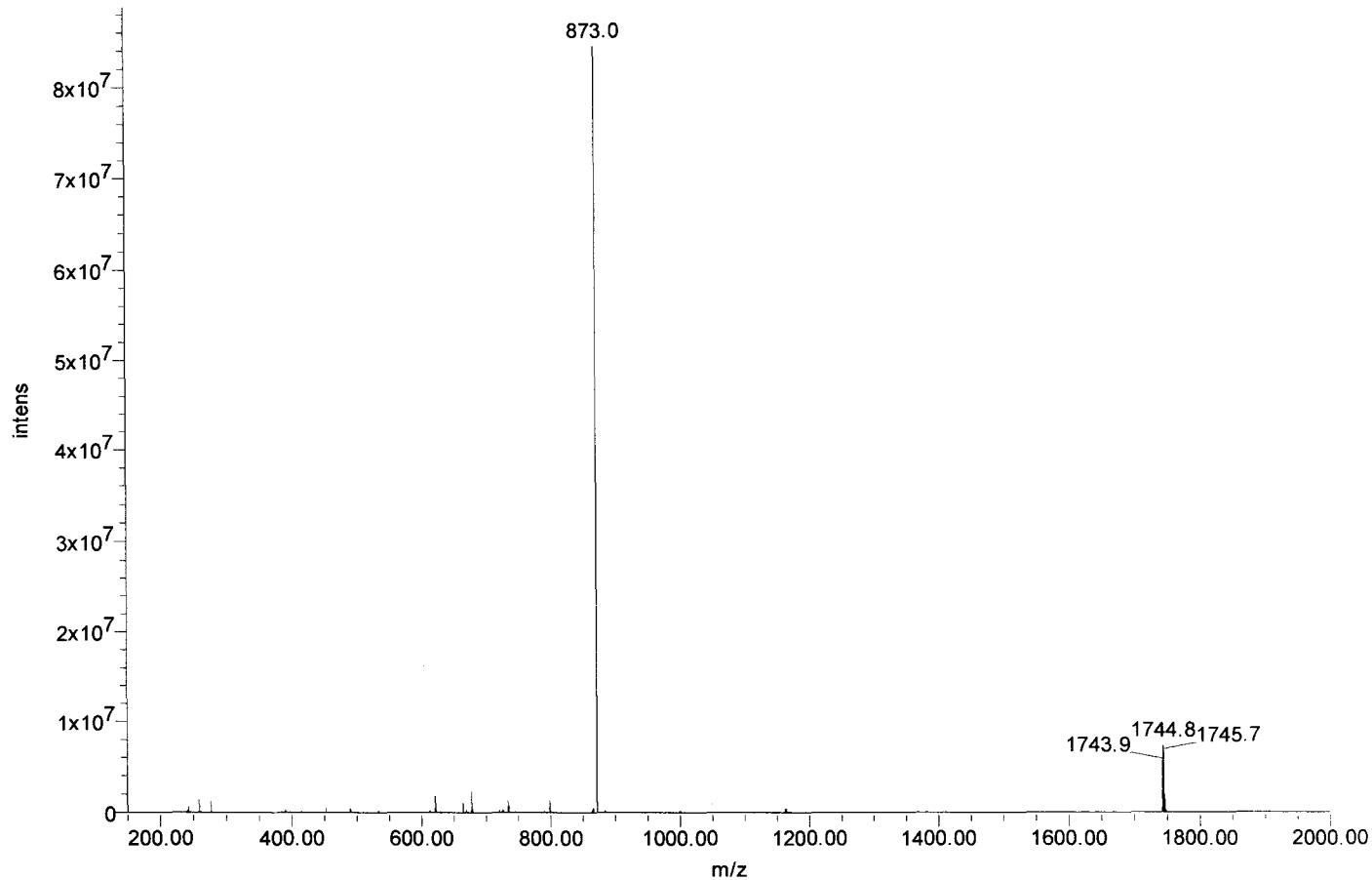
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #181**  
**ESRLVNQHIEEMIKK**  
**Cat#5890 Lot#080132**  
**Net Wt. 1mg**

**Product Name:** Custom Peptide

**Product #:** 344921                           **Lot #:** SW05117T

**Sequence:** Glu-Ser-Arg-Leu-Val-Asn-Gln-Ile-Ile-Glu-Glu-Met-Ile-Lys-Lys

**Molecular Weight:** 1830.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW " (see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.4% (see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 66.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/20/08

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	
Arg	1.00	0.98	Ile	3.00	2.34	* I	Met	1.00	1.02
Asx	1.00	1.00	Leu	1.00	1.12		Ser	1.00	0.80
Glx	4.00	3.87	Lys	2.00	1.97		Val	1.00	1.03

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/22/08  
**Quality Control Department**

Quality Control Department

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Vista, CA 92081 USA

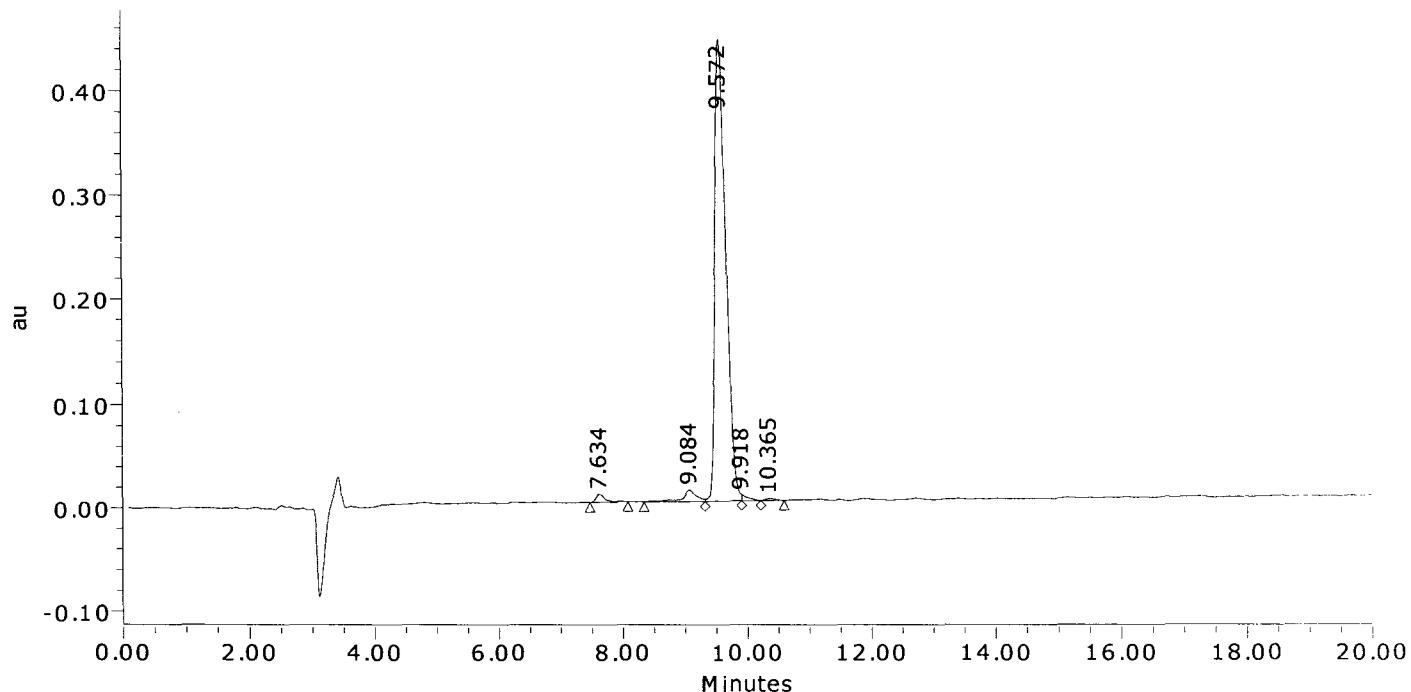
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344921/SW05117T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 10:44:15 CST  
Sample ID: 344921 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344921\_A Final\_PDA  
Date Acquired: 5/20/2008 9:07:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 29% -49% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

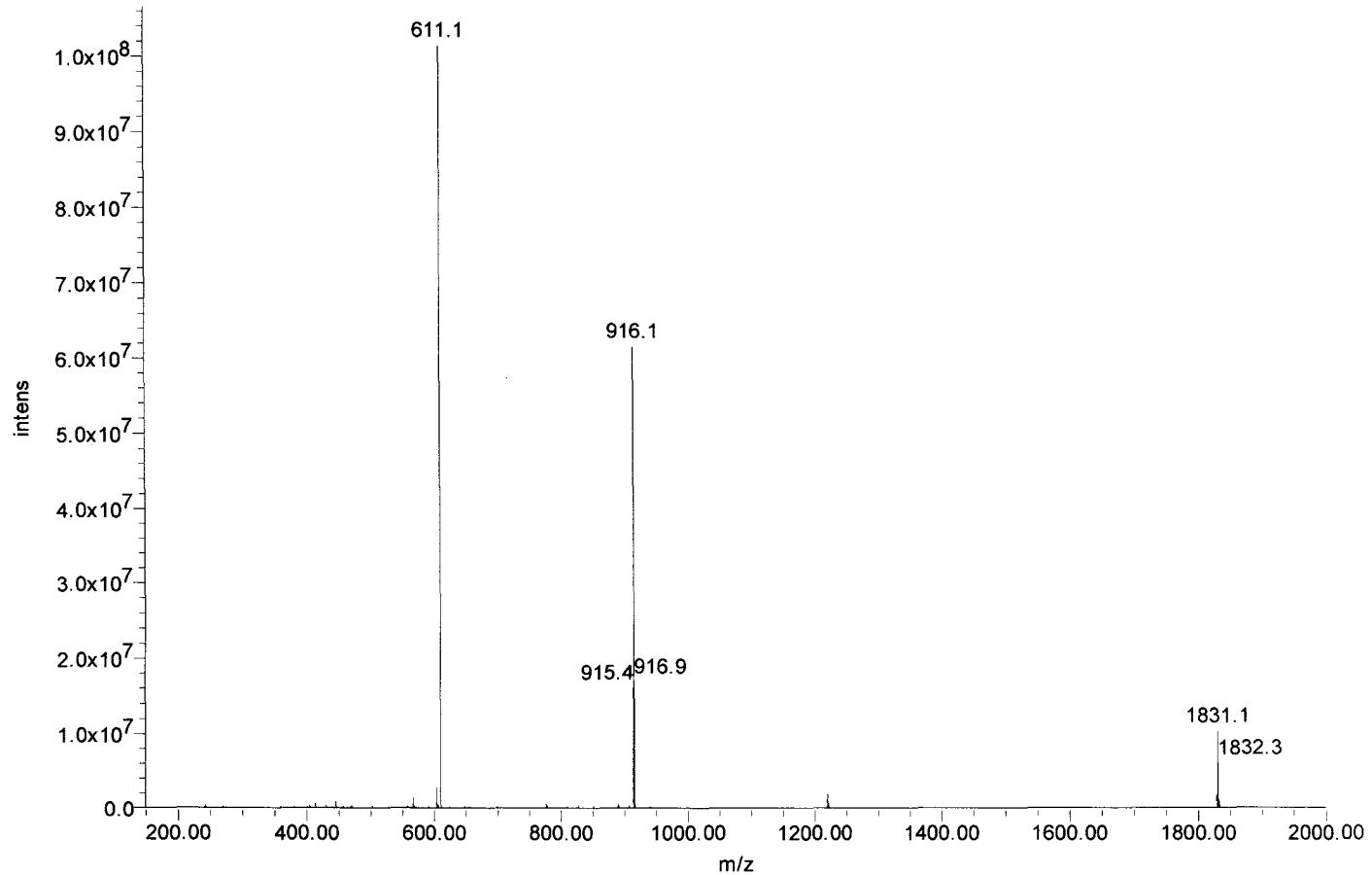


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	1.4	7.634	80684	7988
2	3.1	9.084	177709	11459
3	94.4	9.572	5409576	442880
4	0.7	9.918	41962	5999
5	0.4	10.365	22442	2110
<b>Sum</b>	<b>100.00</b>		<b>5732373</b>	<b>470436.6</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344921      **Lot # :** SW05117T      **Chemist :** Yan Li

Date Acquired : 5/20/2008 9:07:36 CST  
Expected MS : MW: 1830.2  
Acq. Method Set : Import  
Processing Method : 344921\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

STVmac239 Pol #182  
VNQIEEMIKKSEIY  
Cat#5891 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344922                   **Lot #:** SW05159T

**Sequence:** Val-Asn-Gln-Ile-Ile-Glu-Glu-Met-Ile-Lys-Ser-Glu-Ile-Tyr

**Molecular Weight:** 1837.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 78.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.07		Lys	2.00	2.09	Tyr	1.00	1.00
Glx	4.00	4.00		Met	1.00	1.08	Val	1.00	1.03
Ile	4.00	3.50		Ser	1.00	0.84			

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/26/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

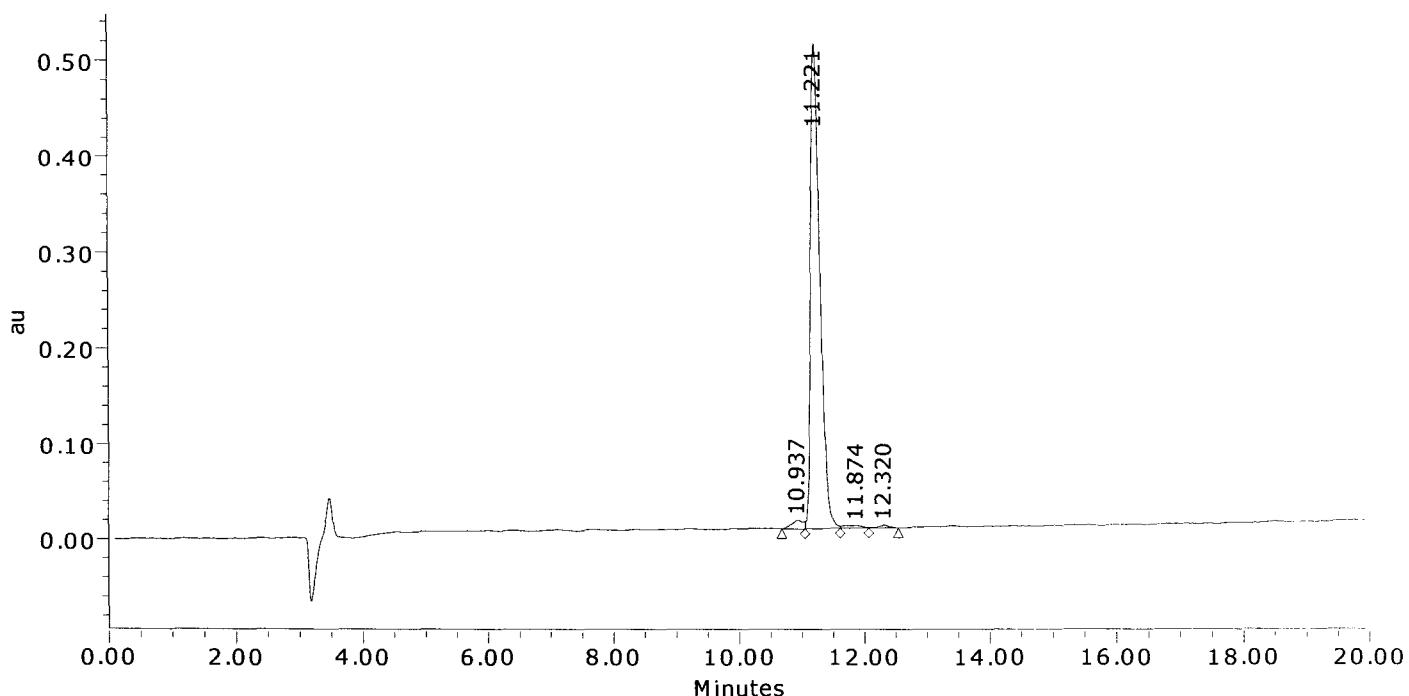
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344922/SW05159T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 12:18:10 CST  
Sample ID: 344922 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344922\_A Final\_PDA  
Date Acquired: 5/22/2008 11:20:40 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.1	10.937	112931	9023
2	96.2	11.221	5248394	506681
3	1.1	11.874	59022	2860
4	0.7	12.320	36061	3221
Sum	100.00		5456409	521784.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344922

Lot # : SW05159T

Chemist : Yan Li

Date Acquired :

5/22/2008 11:20:40 CST

Expected MS :

MW: 1837.2

Acq. Method Set :

Import

Processing Method :

344922\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

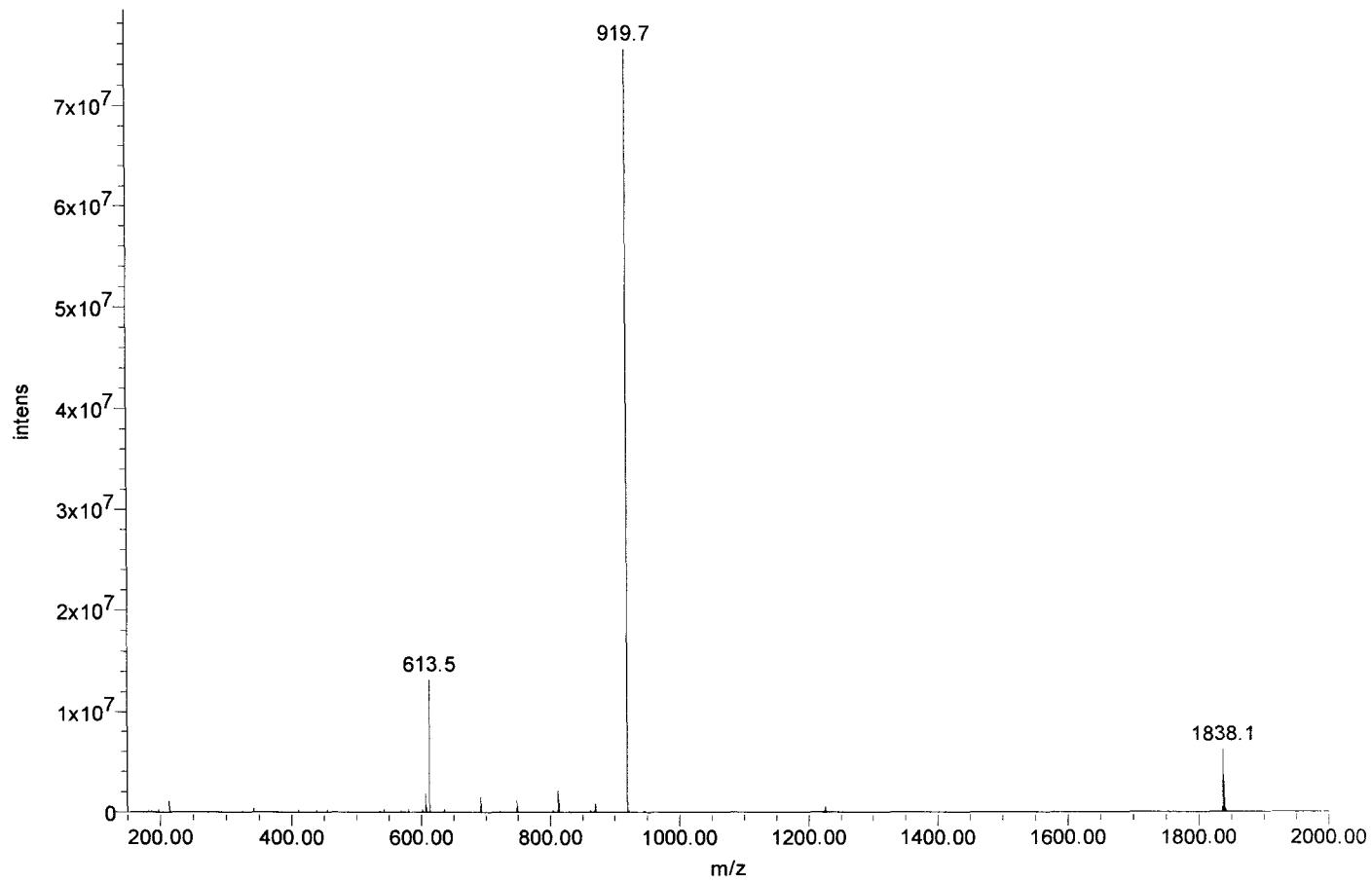
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #183  
IEEMIKKSEIYVAWV  
Cat#5892 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344923                   **Lot #:** SW06004T  
**Sequence:** Ile-Glu-Glu-Met-Ile-Lys-Lys-Ser-Glu-Ile-Tyr-Val-Ala-Trp-Val  
**Molecular Weight:** 1838.2 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 82.0%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 84.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/02/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Lys	2.00	1.84		Trp	1.00	0.00	*1
Glx	3.00	3.00		Met	1.00	0.88		Tyr	1.00	0.91	
Ile	3.00	2.60		Ser	1.00	0.81		Val	2.00	1.84	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 06/05/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

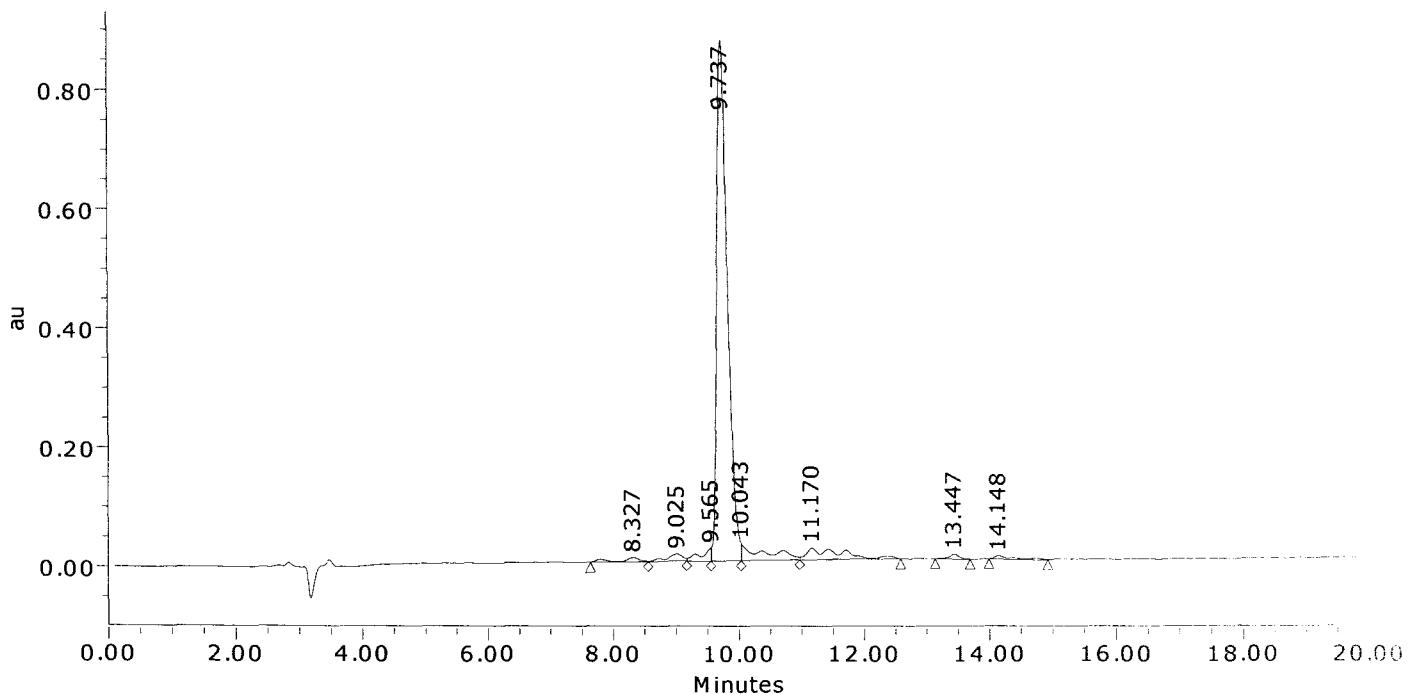
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344923/SW06004T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/2/2008 17:25:44 CST  
Sample ID: 344923 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344923\_A Final\_PDA  
Date Acquired: 6/2/2008 15:30:17 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.2	8.327	154294	7399
2	1.8	9.025	224401	11845
3	2.0	9.565	248630	21565
4	82.0	9.737	10315337	872120
5	5.5	10.043	688794	28737
6	6.0	11.170	759439	19691
7	0.7	13.447	83908	7941
8	0.8	14.148	99203	5526
<b>Sum</b>	<b>100.00</b>		<b>12574005</b>	<b>974822.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344923**

**Lot # : SW06004T**

**Chemist : Yan Li**

Date Acquired :

6/2/2008 15:30:17 CST

Expected MS :

MW: 1838.2

Acq. Method Set :

Import

Processing Method :

344923\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

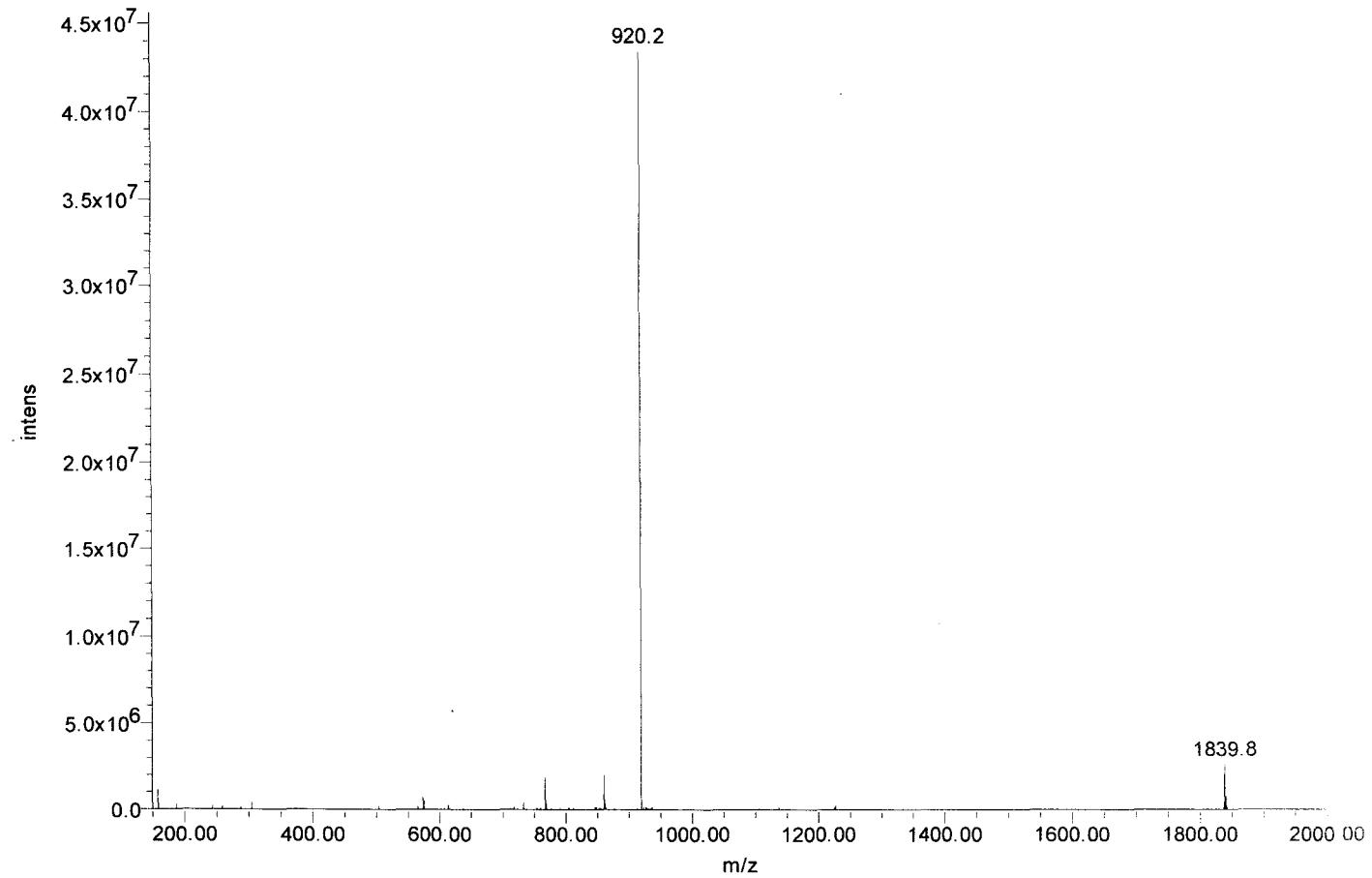
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #184  
IKKSEIYVAVVPAHK  
Cat#5893 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344924                   **Lot #:** SW05114T

**Sequence:** Ile-Lys-Lys-Ser-Glu-Ile-Tyr-Val-Ala-Trp-Val-Pro-Ala-His-Lys

**Molecular Weight:** 1769.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 66.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/19/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Lys	3.00	3.03		Trp	1.00	0.00	*1
Glx	1.00	1.02		Pro	1.00	1.06		Tyr	1.00	1.07	
His	1.00	1.02		Ser	1.00	0.82		Val	2.00	2.00	
Ile	2.00	1.99									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/21/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

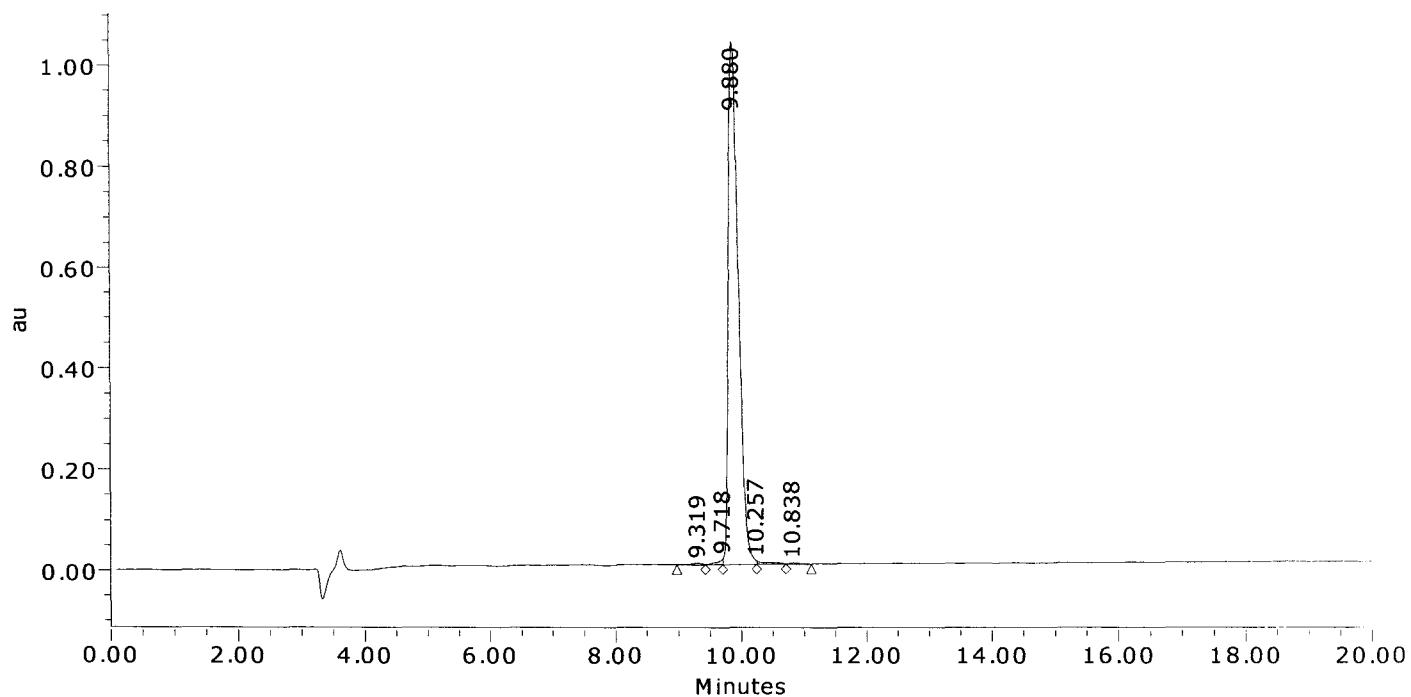
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344924/SW05114T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 9:57:57 CST  
Sample ID: 344924 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344924\_A Final\_PDA  
Date Acquired: 5/19/2008 18:58:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.3	9.319	36070	2985
2	0.6	9.718	66071	11768
3	98.2	9.880	11433742	1034697
4	0.7	10.257	80520	6353
5	0.2	10.838	23911	2190
Sum	100.00		11640313	1057994.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344924**

**Lot # : SW05114T**

**Chemist : Yan Li**

Date Acquired :

5/19/2008 18:58:26 CST

Expected MS :

MW: 1769.1

Acq. Method Set :

Import

Processing Method :

344924\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

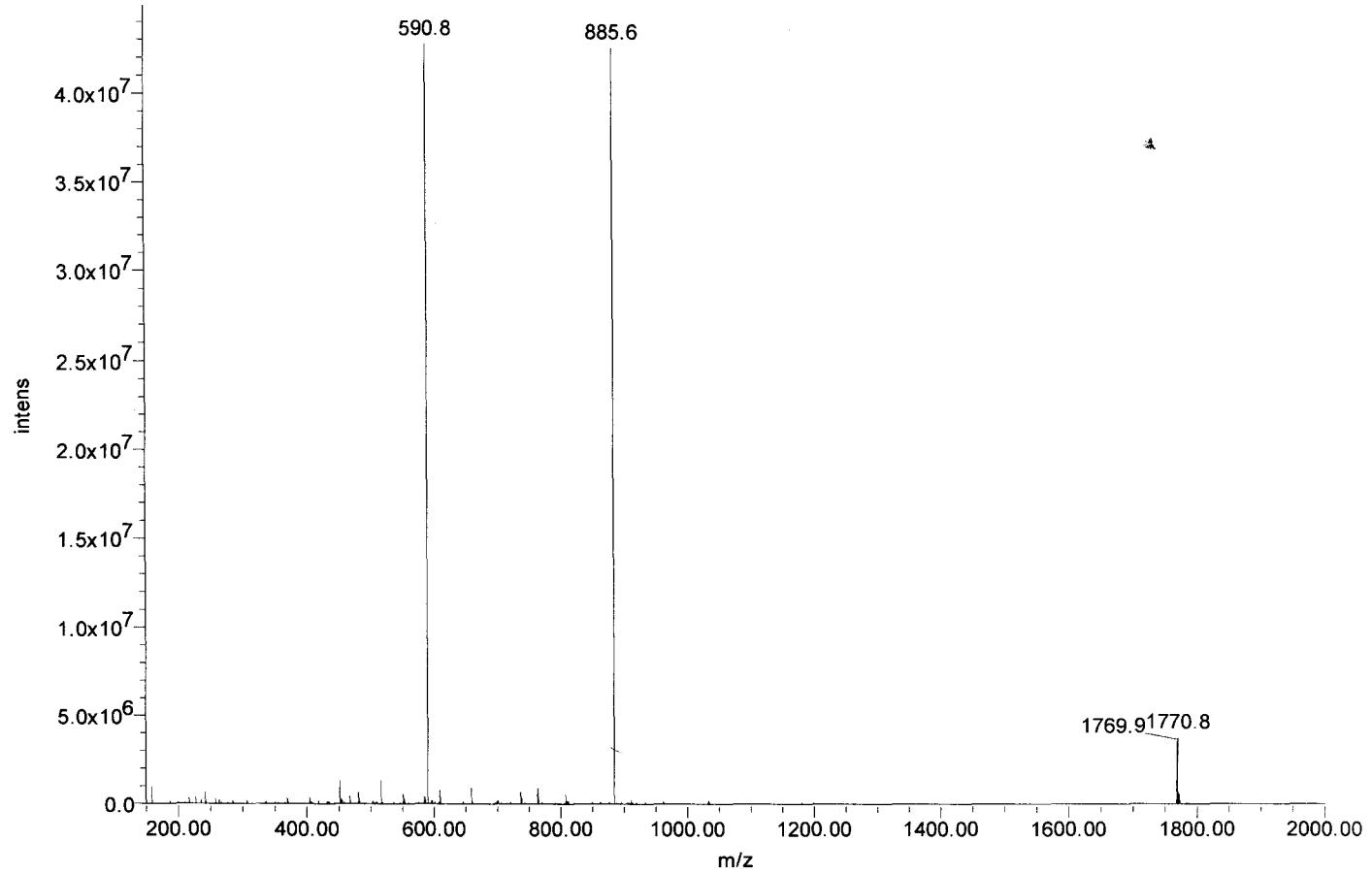
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #185  
EIYVAWVPAHKGIGG  
Cat#5894 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344925                   **Lot #:** SW05130T

**Sequence:** Glu-Ile-Tyr-Val-Ala-Trp-Val-Pro-Ala-His-Lys-Gly-Ile-Gly-Gly

**Molecular Weight:** 1596.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 89.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00	Ile	2.00	1.89		Trp	1.00	0.00		*1
Glx	1.00	0.96	Lys	1.00	0.96		Tyr	1.00	1.00		
Gly	3.00	2.78	Pro	1.00	1.02		Val	2.00	1.90		
His	1.00	0.96									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/22/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

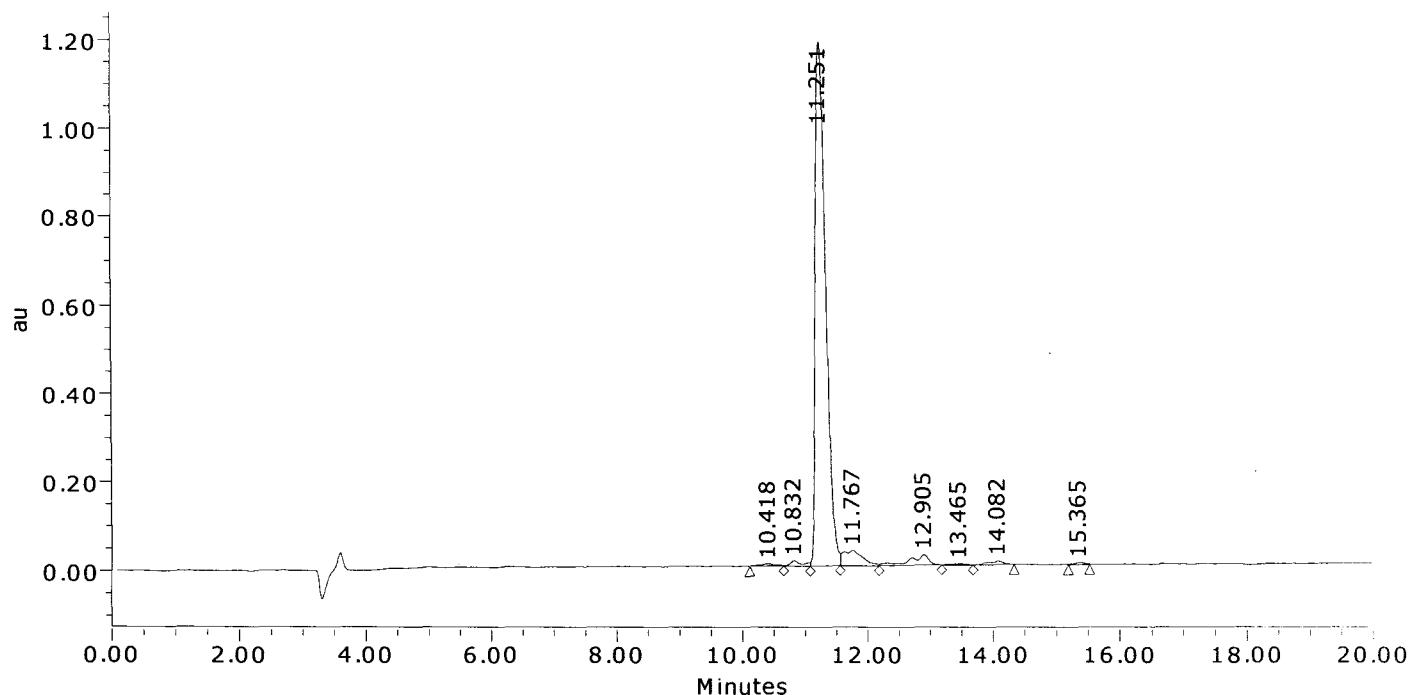
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344925/SW05130T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/21/2008 9:43:57 CST  
Sample ID: 344925 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344925\_A Final\_PDA  
Date Acquired: 5/20/2008 17:46:17 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.5	10.418	78278	5069
2	1.0	10.832	147736	11284
3	89.3	11.251	13533536	1184313
4	4.7	11.767	714842	32930
5	3.2	12.905	482428	23009
6	0.2	13.465	34825	2351
7	0.9	14.082	130129	7303
8	0.2	15.365	34534	3914
Sum	100.00		15156306	1270173.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344925

Lot # : SW05130T

Chemist : Yan Li

Date Acquired :

5/20/2008 17:46:17 CST

Expected MS :

MW: 1596.9

Acq. Method Set :

Import

Processing Method :

344925\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

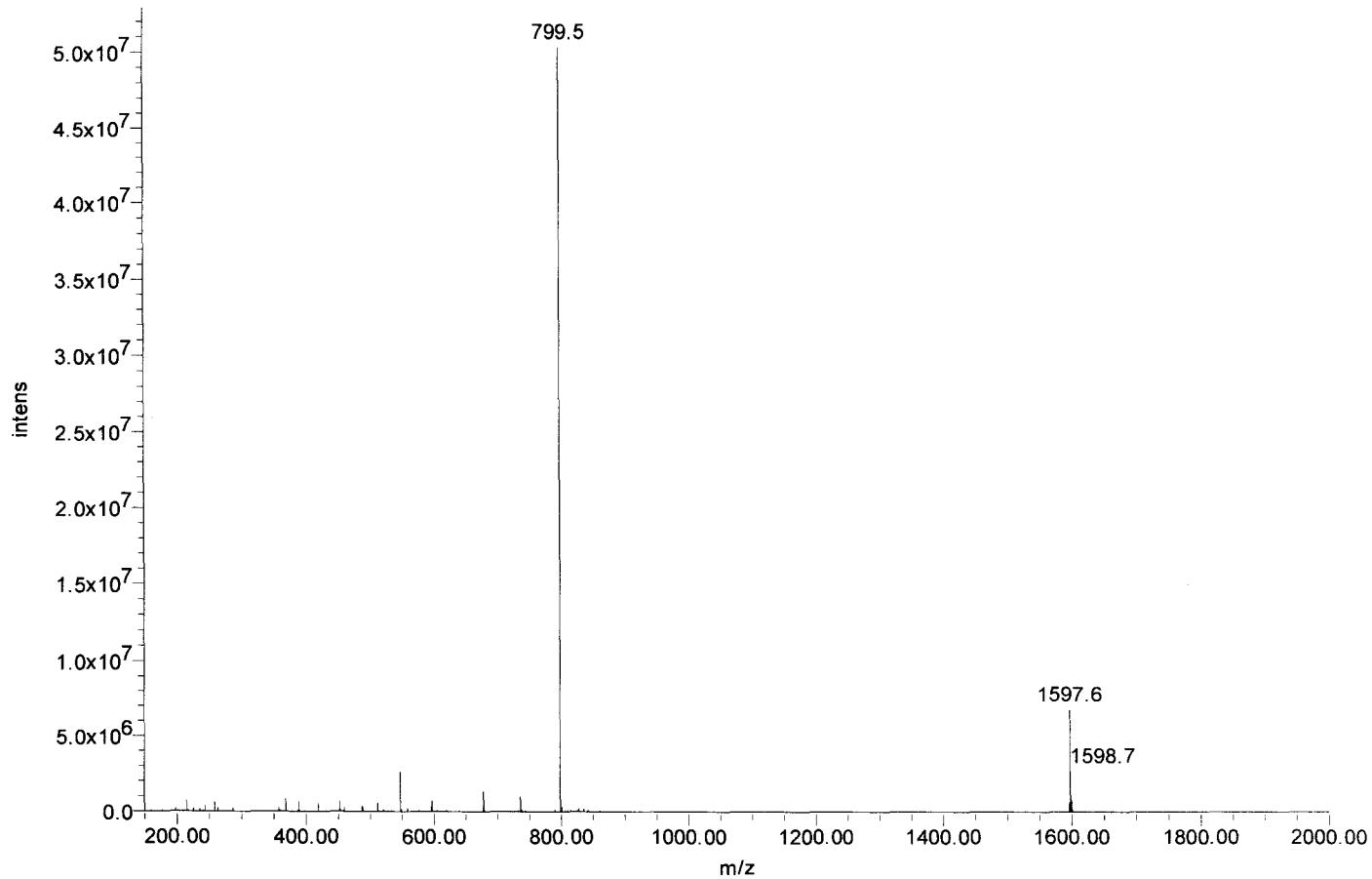
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #186  
AWVPAHKGIGGNQEI  
Cat#5895 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344926                   **Lot #:** SW05158T

**Sequence:** Ala-Trp-Val-Pro-Ala-His-Lys-Gly-Ile-Gly-Gly-Asn-Gln-Glu-Ile

**Molecular Weight:** 1576.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 89.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** Off White lyophilized powder

**Peptide Content:** 75.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		His	1.00	0.98	Pro	1.00	0.97
Asx	1.00	1.14		Ile	2.00	2.15	Trp	1.00	0.00
Glx	2.00	2.13		Lys	1.00	0.98	Val	1.00	0.98
Gly	3.00	3.14							*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/26/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

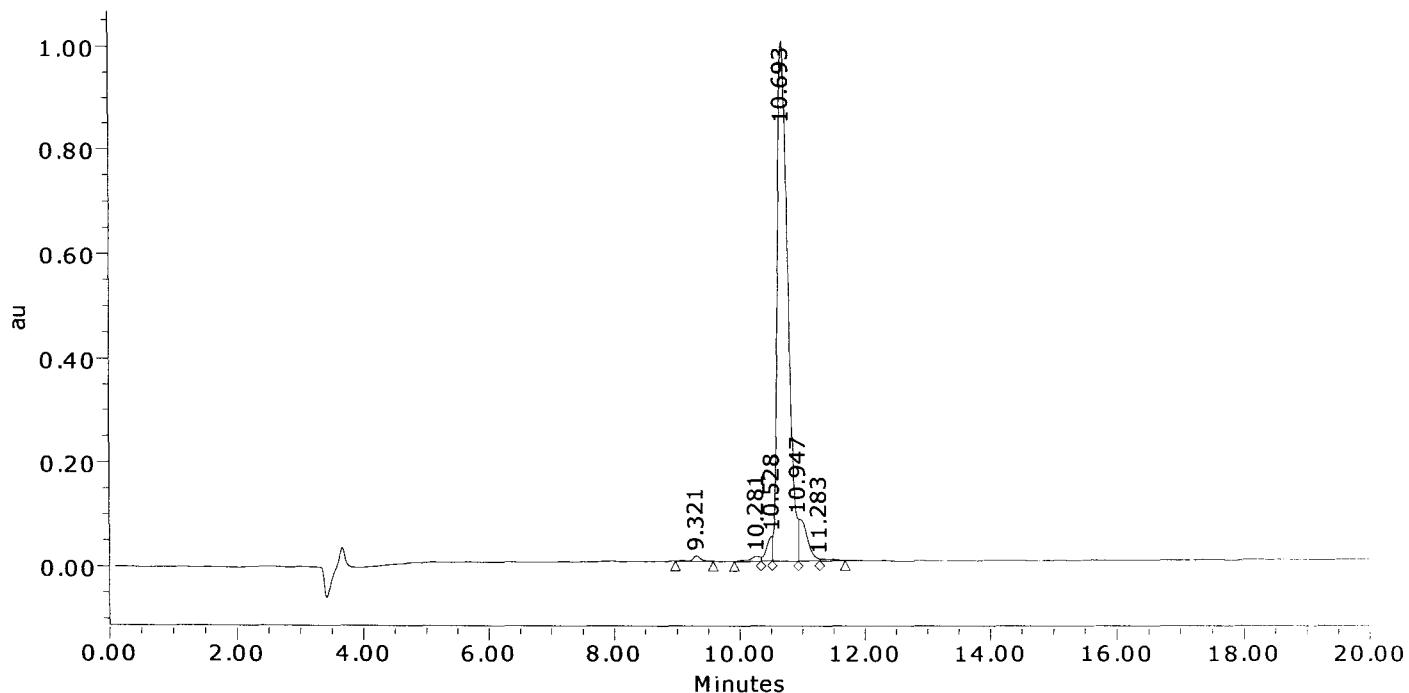
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344926/SW05158T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 9:56:21 CST  
Sample ID: 344926 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344926\_A\_Final\_PDA  
Date Acquired: 5/22/2008 20:18:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

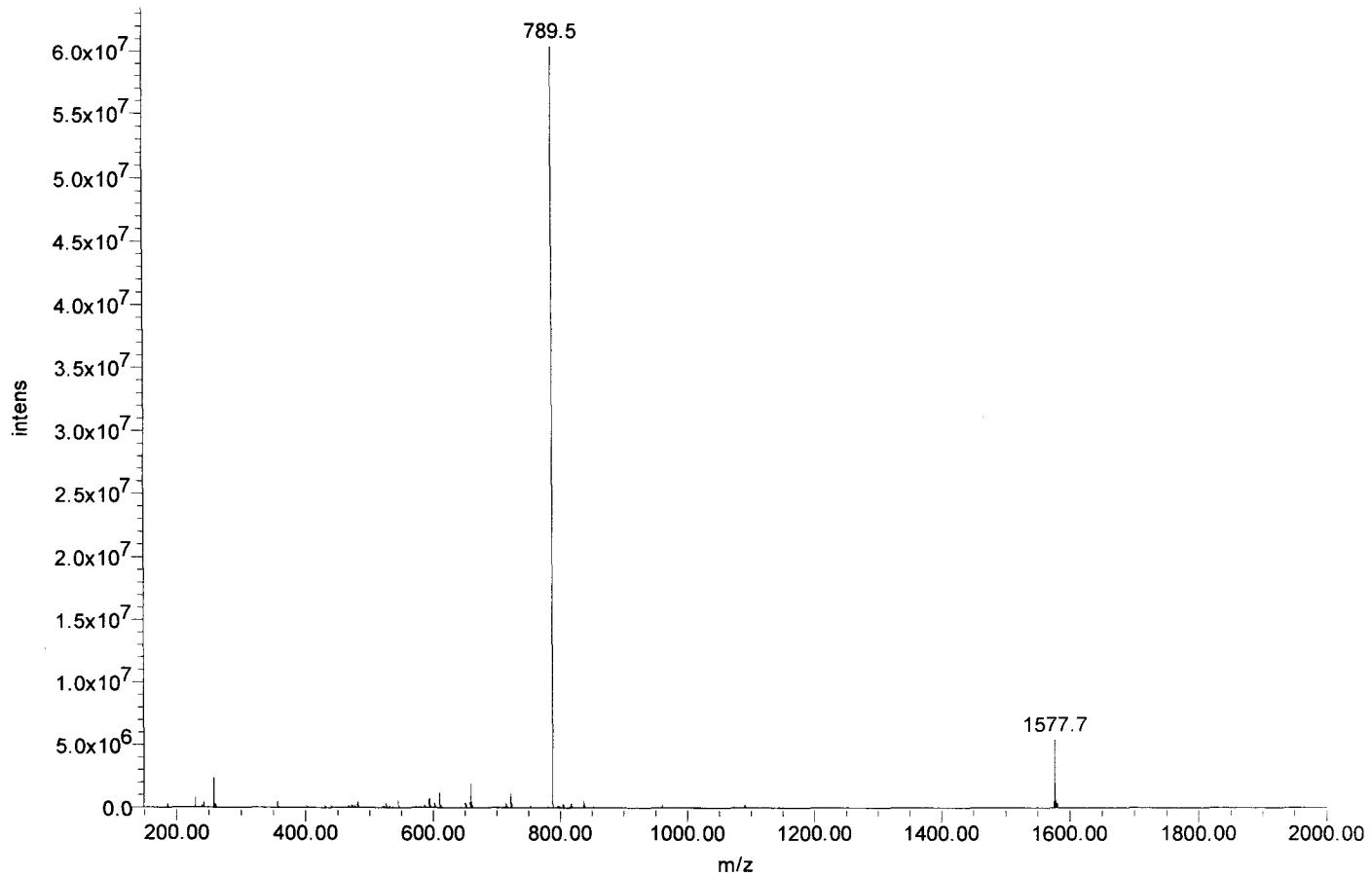


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.7	9.321	89834	10228
2	0.8	10.281	99378	8608
3	2.2	10.528	287576	47230
4	89.9	10.693	11567795	999763
5	6.0	10.947	767429	79900
6	0.4	11.283	53195	4061
Sum	100.00		12865206	1149790.3

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344926      **Lot # :** SW05158T      **Chemist :** Yan Li

Date Acquired : 5/22/2008 20:18:09 CST  
Expected MS : MW: 1576.8  
Acq. Method Set : Import  
Processing Method : 344926\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #187  
AHKGIGGNQFIDHLV  
Cat#5896 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344927                   **Lot #:** SW05121T  
**Sequence:** Ala-His-Lys-Gly-Ile-Gly-Gly-Asn-Gln-Glu-Ile-Asp-His-Leu-Val  
**Molecular Weight:** 1587.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/20/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00	Gly	3.00	2.84		Leu	1.00	1.10
Asx	2.00	2.00	His	2.00	1.91		Lys	1.00	0.93
Glx	2.00	1.89	Ile	2.00	1.90		Val	1.00	1.02

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/22/08

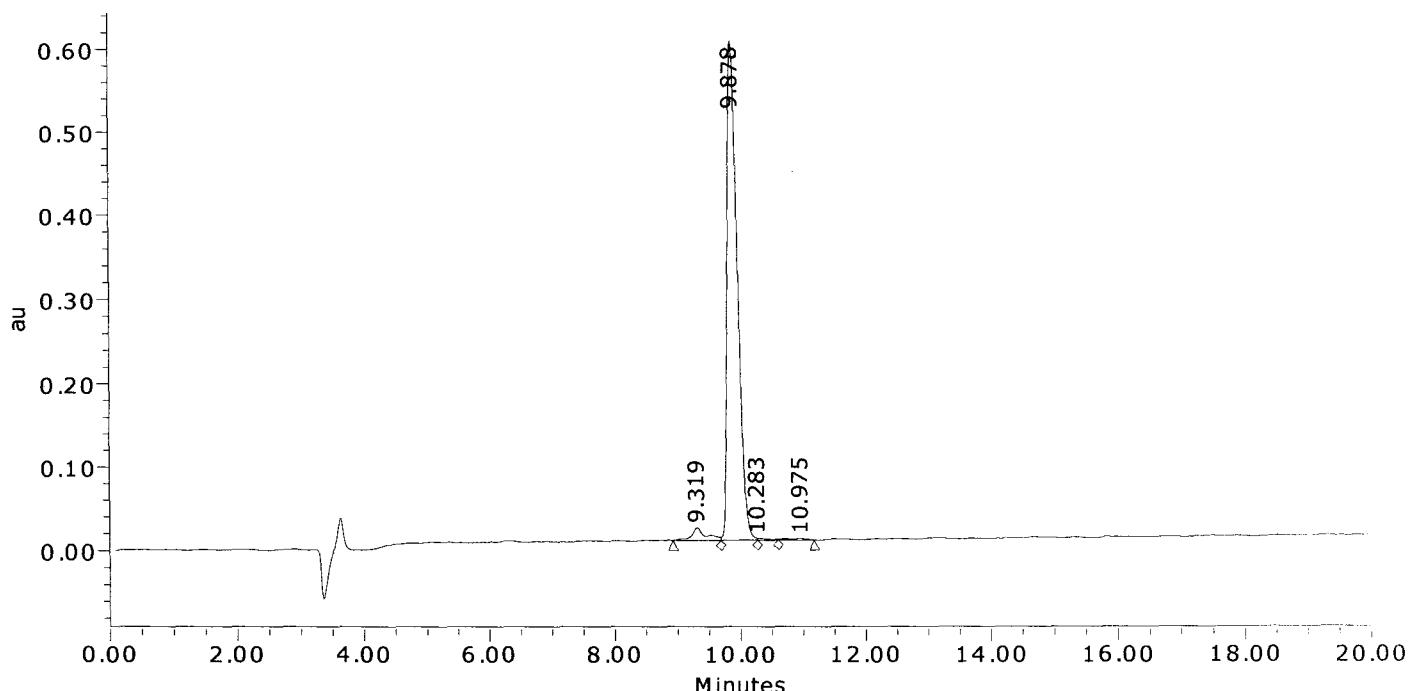
Quality Control Department

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344927/SW05121T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/20/2008 12:38:46 CST  
Sample ID: 344927 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344927\_A\_Final\_PDA  
Date Acquired: 5/20/2008 11:53:13 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	3.5	9.319	247447	15354
2	95.7	9.878	6725716	597882
3	0.3	10.283	24379	2059
4	0.5	10.975	31666	1635
Sum	100.00		7029208	616929.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344927**

**Lot # : SW05121T**

**Chemist : Yan Li**

Date Acquired :

5/20/2008 11:53:13 CST

Expected MS :

MW: 1587.8

Acq. Method Set :

Import

Processing Method :

344927\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

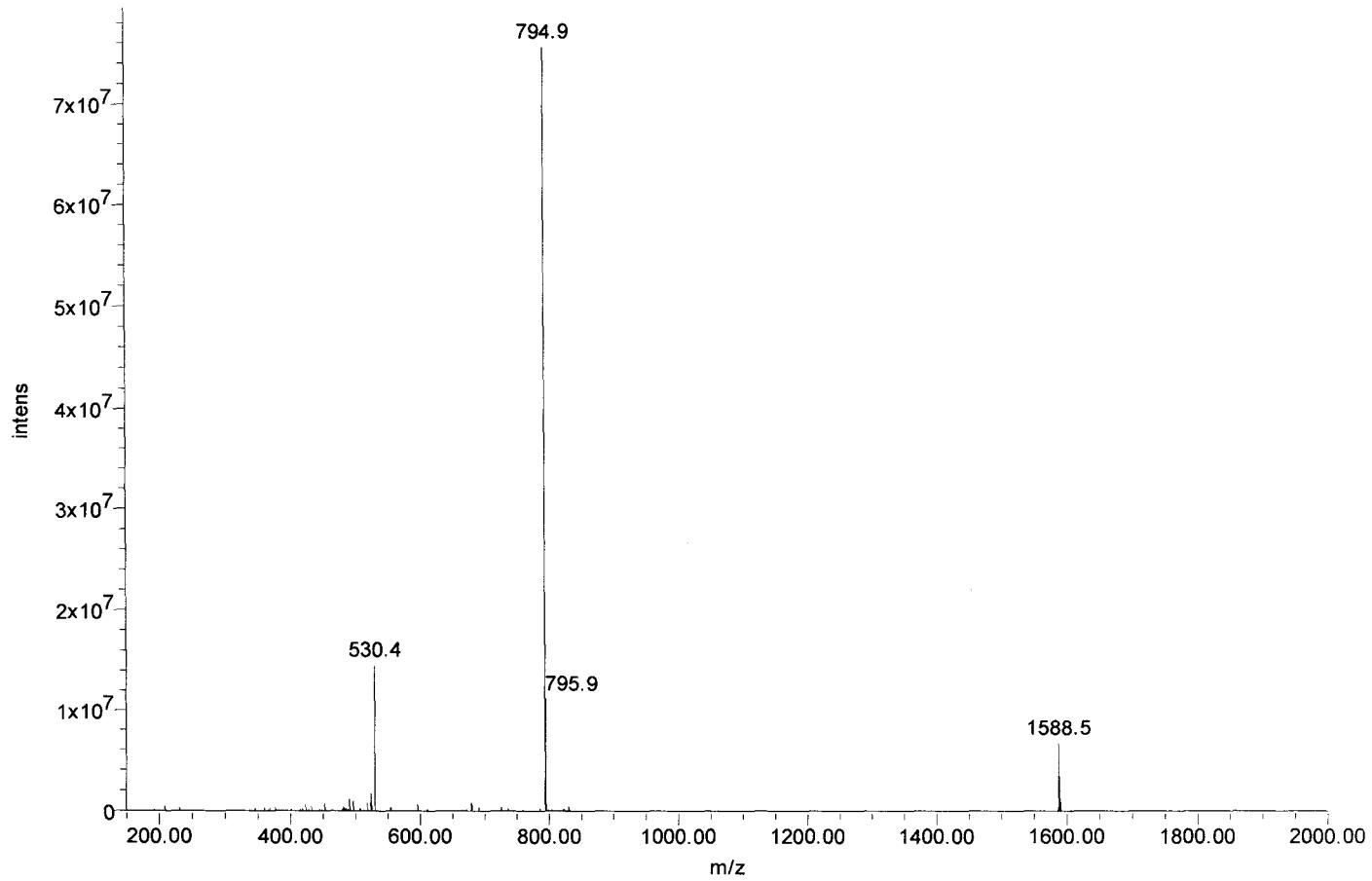
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #188  
IGGNQEIDHLVSGGI  
Cat#5897 Lot#080132  
Net Wt. 1mg

**Product Name:**

Custom Peptide

**Product #:**

344928

**Lot #:** SW05163T

**Sequence:**

Ile-Gly-Gly-Asn-Gln-Glu-Ile-Asp-His-Leu-Val-Ser-Gln-Gly-Ile

**Molecular Weight:**

1579.7 amu

**Mass Spectra Analysis:**

Electrospray " Exhibits correct MW "

(see attached MS spectrogram)

**HPLC Analysis:**

Peptide Purity: 94.3%

(see attached HPLC chromatogram)

**Solubility:**

1.0 mg/mL in 10% Acetonitrile in water

**Appearance:**

White lyophilized powder

**Peptide Content:**

80.9%

**Counter Ion:**

Trifluoroacetate

**Date of Mfg:**

05/22/08

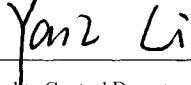
### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		His	1.00	1.03		Ser	1.00	0.80	
Glx	3.00	2.87		Ile	3.00	2.92		Val	1.00	1.04	
Gly	3.00	3.07		Leu	1.00	1.09					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

  
Yanz Li

Date: 05/26/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

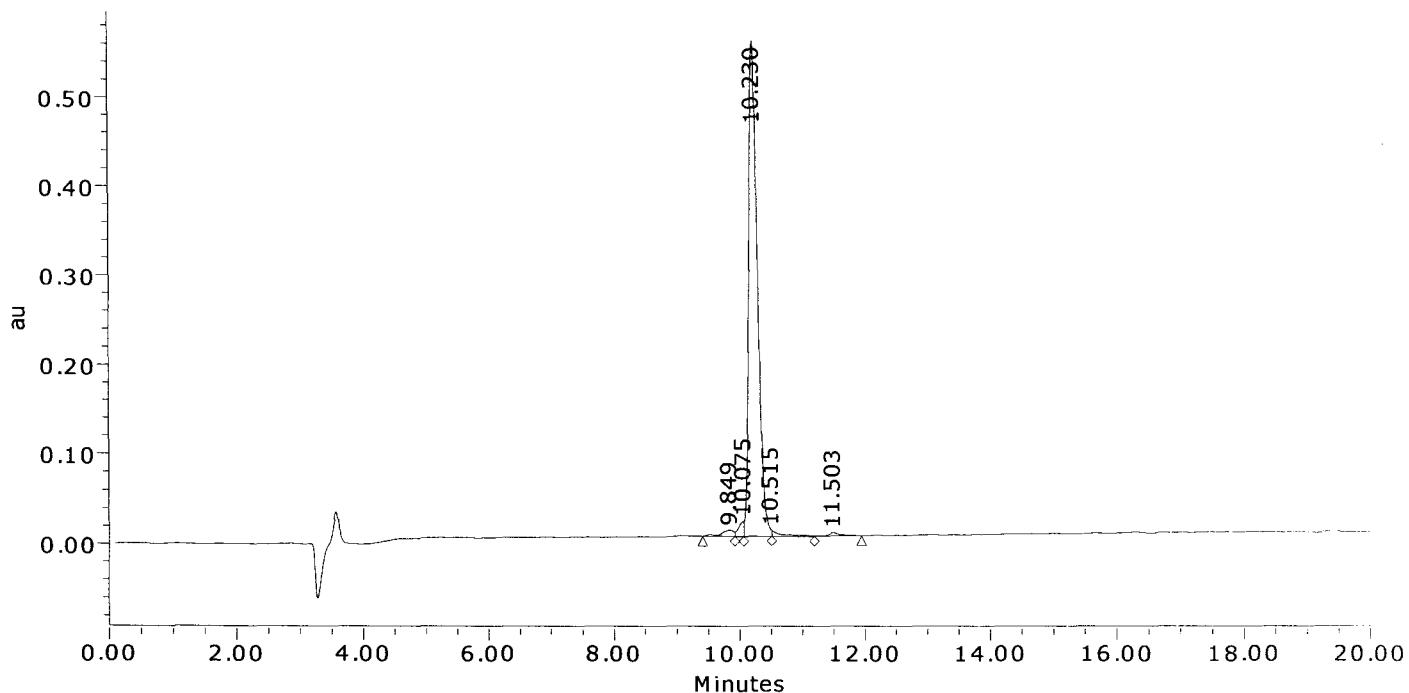
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344928/SW05163T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/23/2008 9:28:22 CST
Sample ID:	344928	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344928_A Final_PDA
Date Acquired:	5/22/2008 18:23:02 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22% -42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	1.8	9.849	103118	6966
2	1.8	10.075	99332	17150
3	94.3	10.230	5314474	554455
4	1.2	10.515	66872	6685
5	0.9	11.503	51112	3492
<b>Sum</b>	<b>100.00</b>		<b>5634908</b>	<b>588749.6</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344928

Lot # : SW05163T

Chemist : Yan Li

Date Acquired :

5/22/2008 18:23:02 CST

Expected MS :

MW: 1579.7

Acq. Method Set :

Import

Processing Method :

344928\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

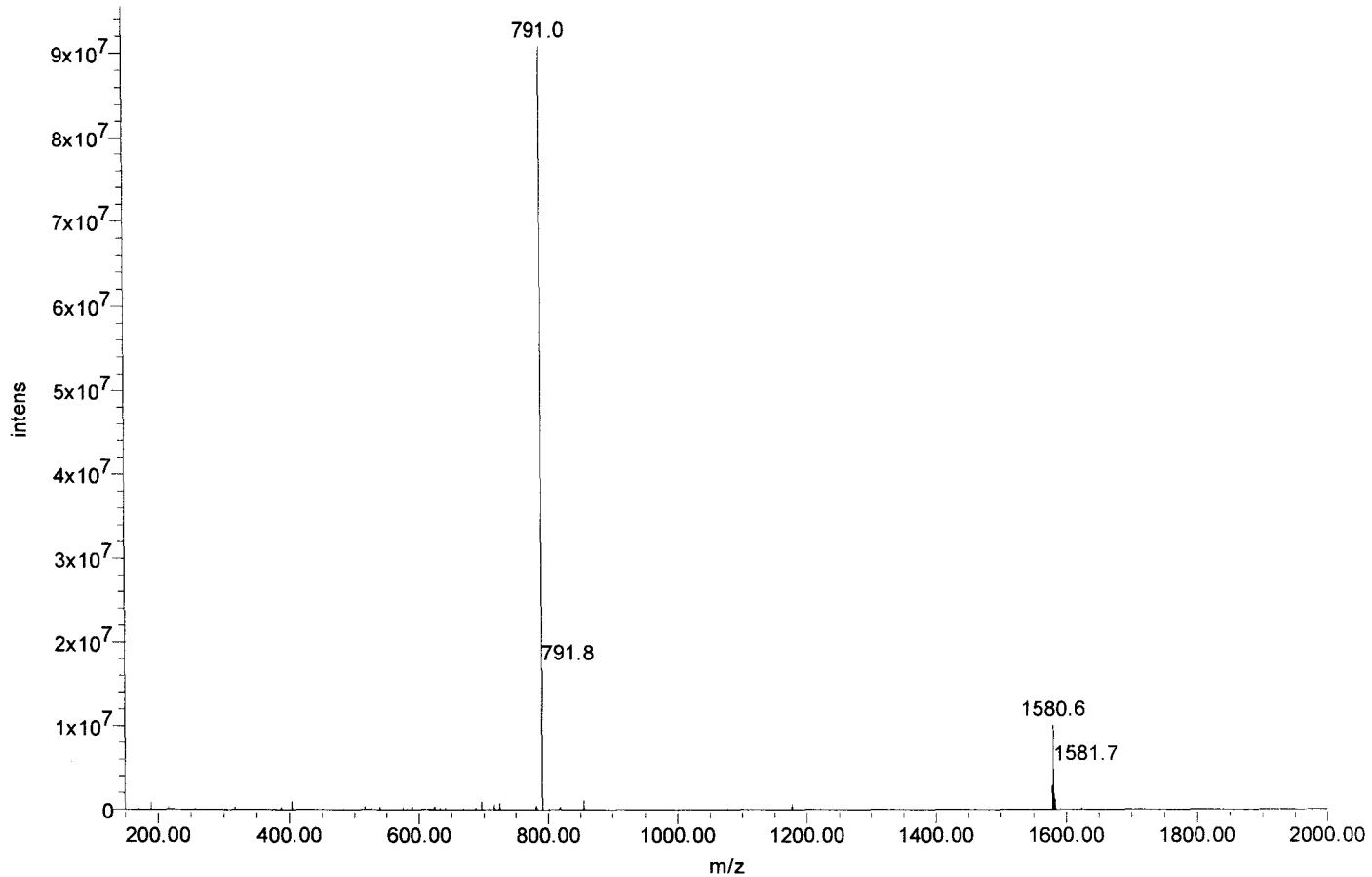
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #189  
QEIDHLVSQLGIRQVL  
Cat#5898 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344929                   **Lot #:** SW05145T  
**Sequence:** Gln-Glu-Ile-Asp-His-Leu-Val-Ser-Gln-Gly-Ile-Arg-Gln-Val-Leu  
**Molecular Weight:** 1735.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 91.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 82.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/21/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.09		Gly	1.00	1.12		Leu	2.00	2.14	
Asx	1.00	1.00		His	1.00	1.01		Ser	1.00	0.80	
Glx	4.00	3.85		Ile	2.00	1.96		Val	2.00	2.00	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/26/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

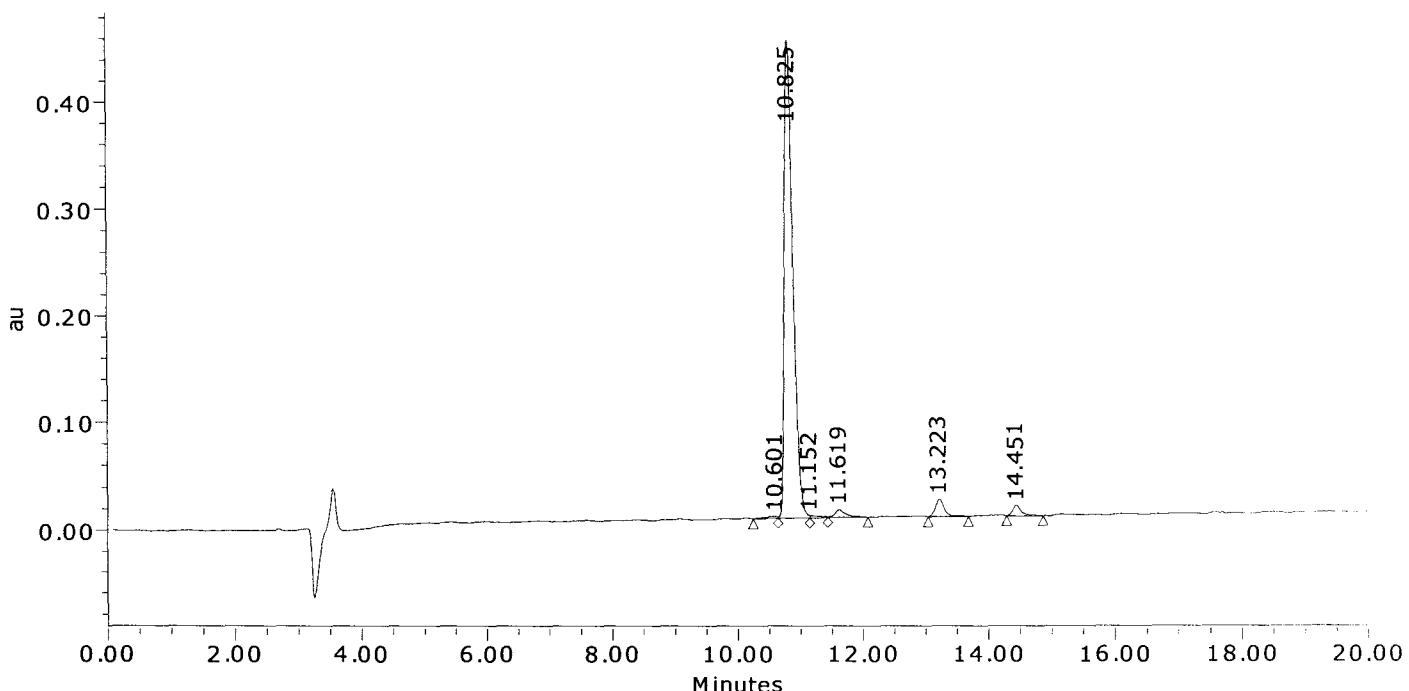
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344929/SW05145T**

Data File:	My Network Places\System (C)\on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/22/2008 11:23:09 CST
Sample ID:	344929	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344929_A Final_PDA
Date Acquired:	5/21/2008 19:36:57 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.6	10.601	26270	1769
2	91.4	10.825	4271287	447208
3	0.6	11.152	27516	2410
4	2.0	11.619	91716	7308
5	3.4	13.223	157108	15941
6	2.1	14.451	99848	9895
<b>Sum</b>	<b>100.00</b>		<b>4673745</b>	<b>484530.7</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344929**

**Lot # : SW05145T**

**Chemist : Yan Li**

Date Acquired :

5/21/2008 19:36:57 CST

Expected MS :

MW: 1735.0

Acq. Method Set :

Import

Processing Method :

344929\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

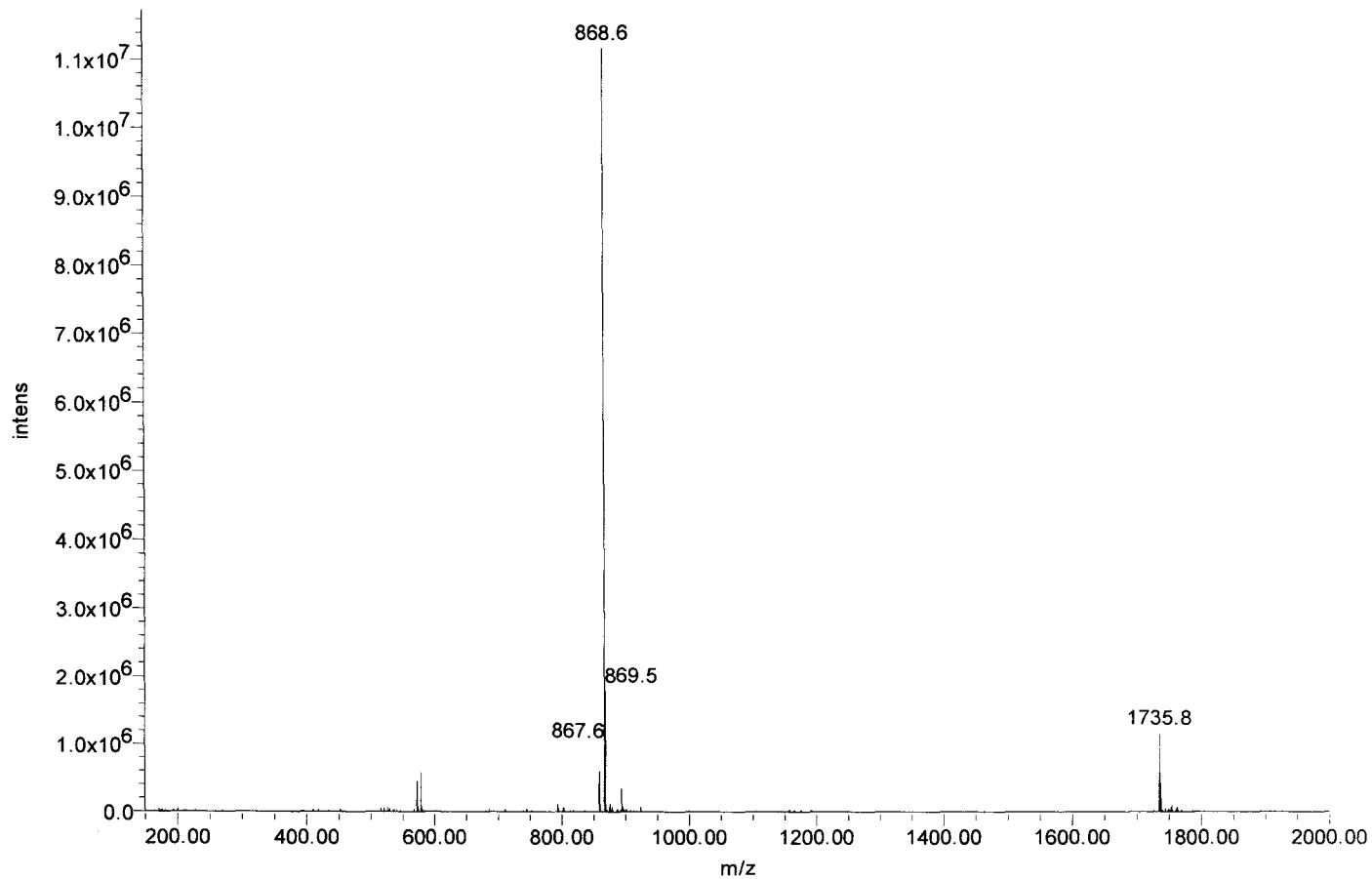
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #190  
HLVSQGIRQVLFLEK  
Cat#5899 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344930                   **Lot #:** SW06002T  
**Sequence:** His-Leu-Val-Ser-Gln-Gly-Ile-Arg-Gln-Val-Leu-Phe-Leu-Glu-Lys  
**Molecular Weight:** 1767.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/02/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.97		Ile	1.00	0.93		Phe	1.00	1.00	
Glx	3.00	3.30		Leu	3.00	3.01		Ser	1.00	0.84	
Gly	1.00	1.00		Lys	1.00	0.99		Val	2.00	1.96	
His	1.00	0.97									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li  
Quality Control Department

Date: 06/05/08

## AMERICAN PEPTIDE COMPANY, INC.

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

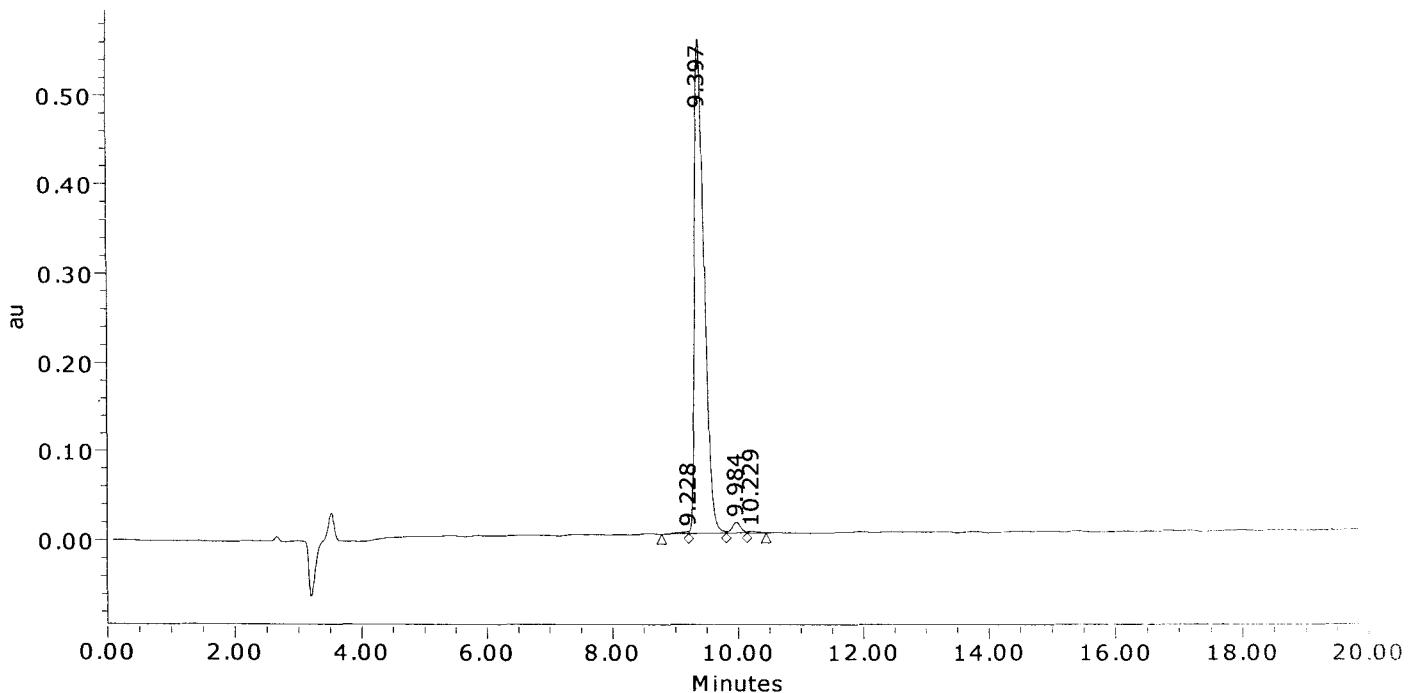
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344930/SW06002T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/2/2008 12:26:33 CST  
Sample ID: 344930 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344930\_A Final\_PDA  
Date Acquired: 6/2/2008 11:50:08 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25%-45% Buffer B in 20 min.; Inj Vol.: 10 uL.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	9.228	23942	2350
2	97.4	9.397	5908343	555467
3	1.9	9.984	115645	11919
4	0.3	10.229	17512	1781
Sum	100.00		6065441	571516.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344930**

**Lot # : SW06002T**

**Chemist : Yan Li**

Date Acquired :

6/2/2008 11:50:08 CST

Expected MS :

MW: 1767.1

Acq. Method Set :

Import

Processing Method :

344930\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

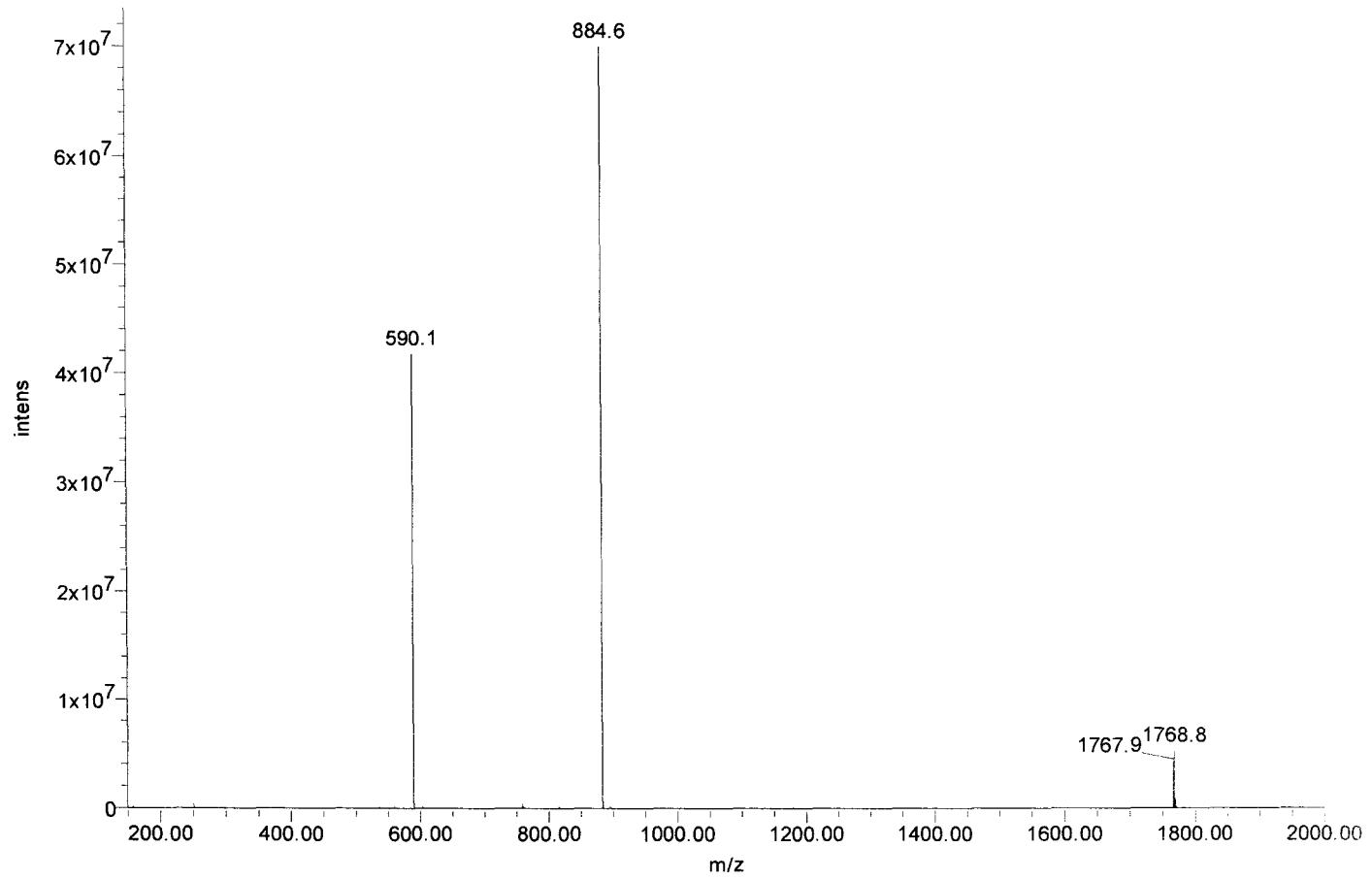
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #191  
QGIRQVLFLEKIEPA  
Cat#5900 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344931                   **Lot #:** SW05135T

**Sequence:** Gln-Gly-Ile-Arg-Gln-Val-Leu-Phe-Leu-Glu-Lys-Ile-Glu-Pro-Ala

**Molecular Weight:** 1741.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 86.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 76.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/21/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05		Ile	2.00	1.92		Phe	1.00	1.06	
Arg	1.00	1.00		Leu	2.00	2.12		Pro	1.00	0.86	
Glx	4.00	4.01		Lys	1.00	1.04		Val	1.00	1.04	
Gly	1.00	1.02									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Yanz Li

Date: 05/25/08

Quality Control Department

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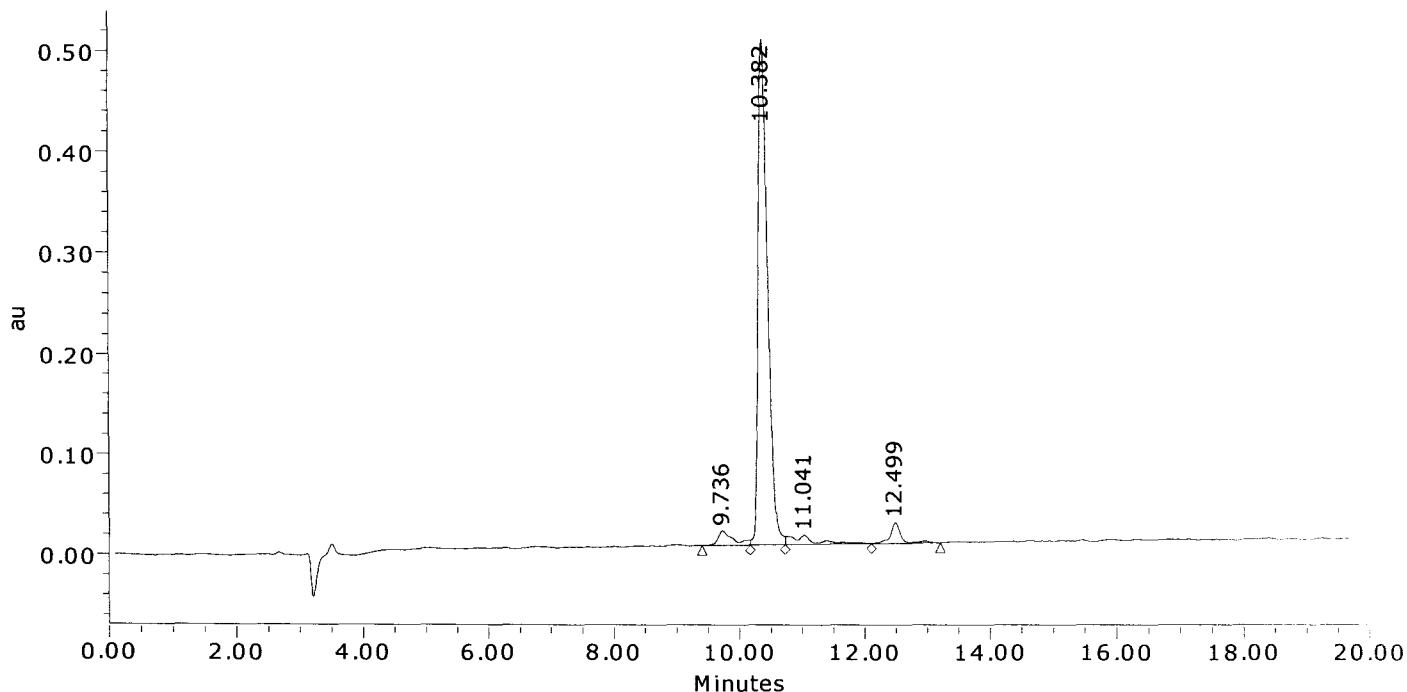
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344931/SW05135T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 9:42:47 CST  
Sample ID: 344931 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344931\_A Final\_PDA  
Date Acquired: 5/21/2008 14:43:38 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	4.2	9.736	255681	14666
2	86.9	10.382	5278408	500948
3	4.5	11.041	274794	9425
4	4.3	12.499	262459	21019
Sum	100.00		6071341	546058.4

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344931

Lot # : SW05135T

Chemist : Yan Li

Date Acquired :

5/21/2008 14:43:38 CST

Expected MS :

MW: 1741.1

Acq. Method Set :

Import

Processing Method :

344931\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

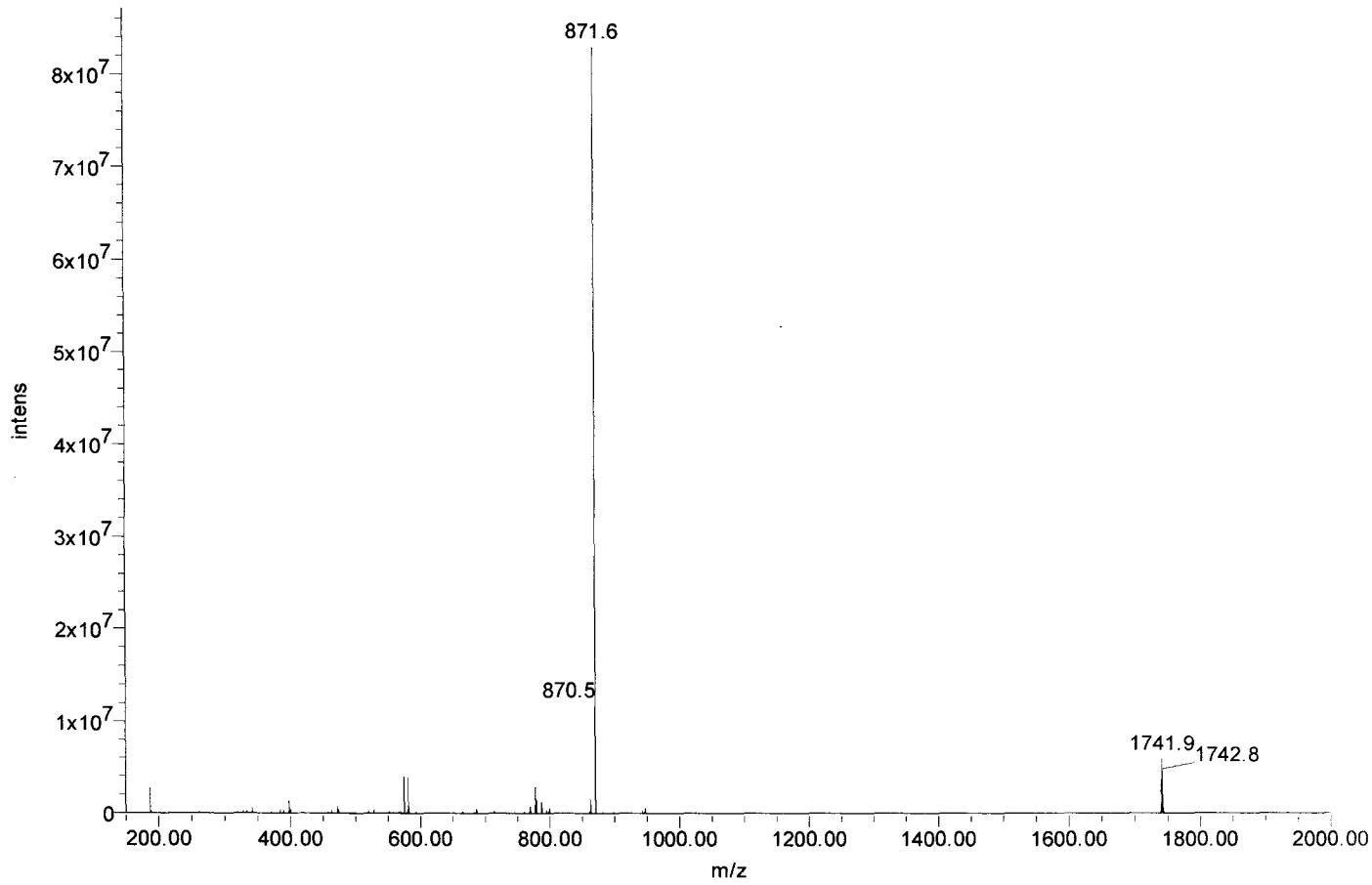
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #192  
QVLFLEKIEPAQEEH  
Cat#5901 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344932                   **Lot #:** SW05236T  
**Sequence:** Gln-Val-Leu-Phe-Leu-Glu-Lys-Ile-Glu-Pro-Ala-Gln-Glu-Glu-His  
**Molecular Weight:** 1810.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 90.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 83.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Ile	1.00	1.01		Phe	1.00	1.00	
Glx	6.00	5.75		Leu	2.00	2.02		Pro	1.00	0.87	
His	1.00	1.01		Lys	1.00	1.00		Val	1.00	1.05	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 06/02/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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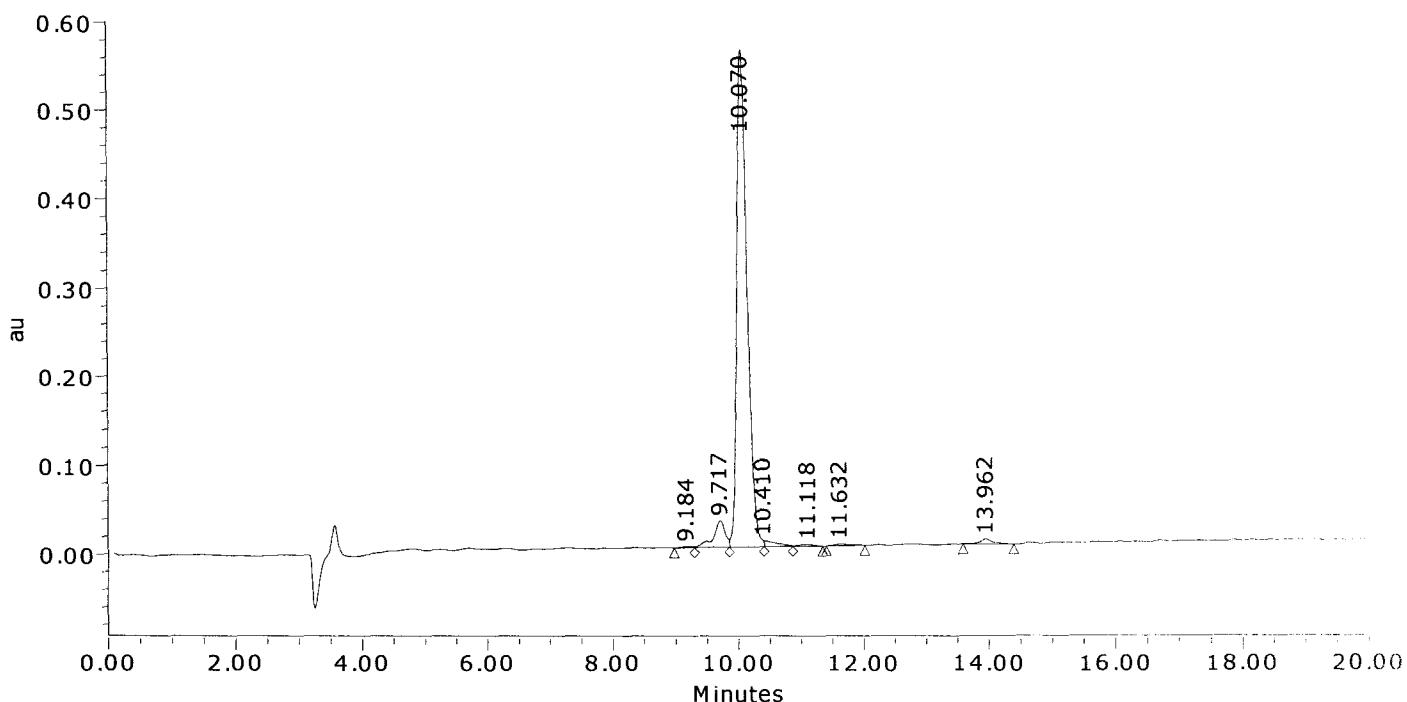
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344932/SW05236T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 10:21:03 CST  
Sample ID: 344932 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344932\_A Final\_PDA  
Date Acquired: 5/28/2008 15:53:10 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.3	9.184	18070	1411
2	5.5	9.717	383830	29635
3	90.9	10.070	6399687	560157
4	1.3	10.410	93270	6697
5	0.5	11.118	33943	1991
6	0.4	11.632	30175	1955
7	1.2	13.962	81933	5597
Sum	100.00		7040908	607441.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344932

Lot # : SW05236T

Chemist : Yan Li

Date Acquired :

5/28/2008 17:16:12 CST

Expected MS :

MW: 1810.0

Acq. Method Set :

Import

Processing Method :

344932\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

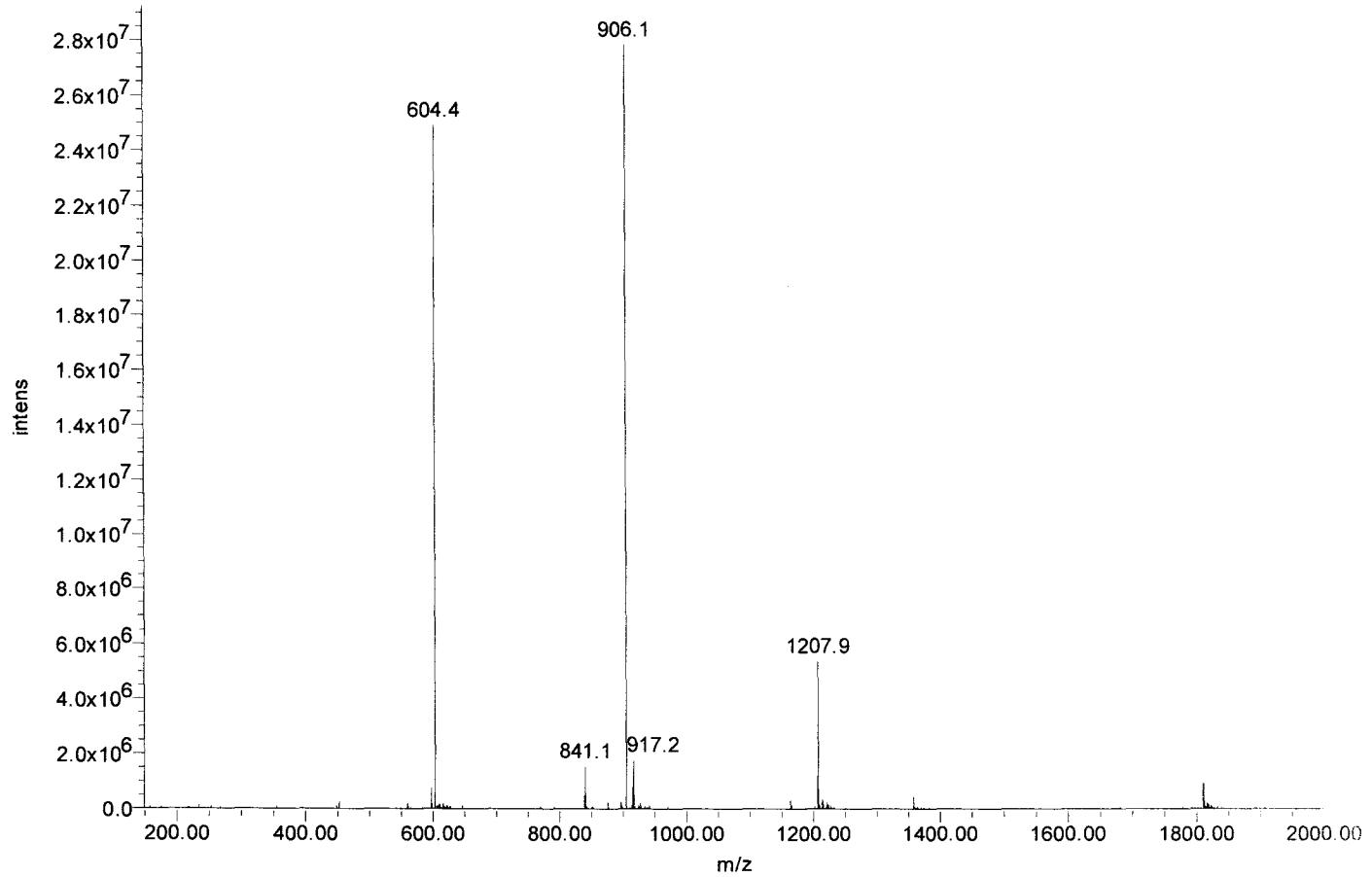
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #193**  
LEKIEPAQEEHDKYH  
Cat#5902 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.95	His	2.00	1.94	Lys	2.00	1.91
Asx	1.00	1.00	Ile	1.00	0.91	Pro	1.00	0.87
Glx	5.00	4.56	Leu	1.00	0.95	Tyr	1.00	0.96

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 06/02/08  
**Quality Control Department**

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81 297 45 6211 Fax: 81 297 45 6252

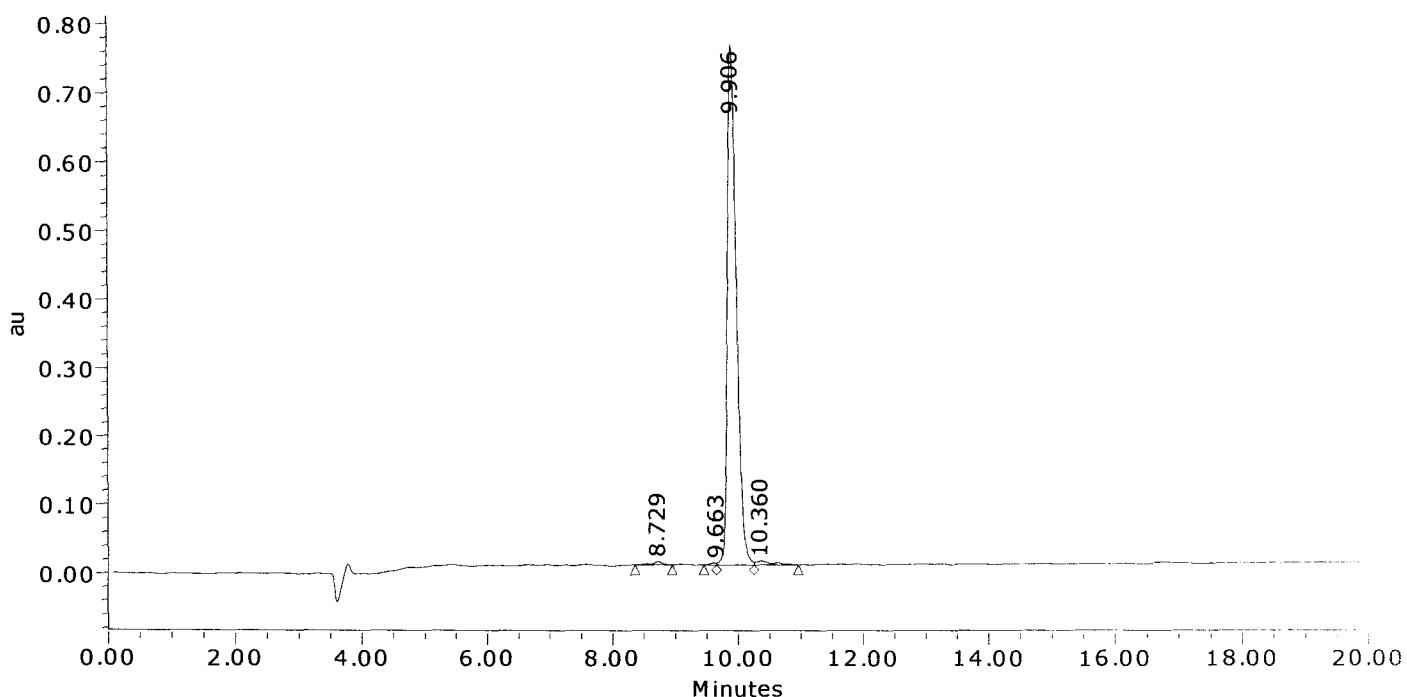
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344933/SW05233T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 11:56:34 CST  
Sample ID: 344933 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344933\_A Final\_PDA  
Date Acquired: 5/28/2008 20:53:09 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 12% -32% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.7	8.729	57820	5251
2	0.2	9.663	18850	2678
3	97.6	9.906	7534060	757111
4	1.4	10.360	105815	5326
Sum	100.00		7716545	770366.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344933**

**Lot # : SW05233T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 20:53:09 CST

Expected MS :

MW: 1866.0

Acq. Method Set :

Import

Processing Method :

344933\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

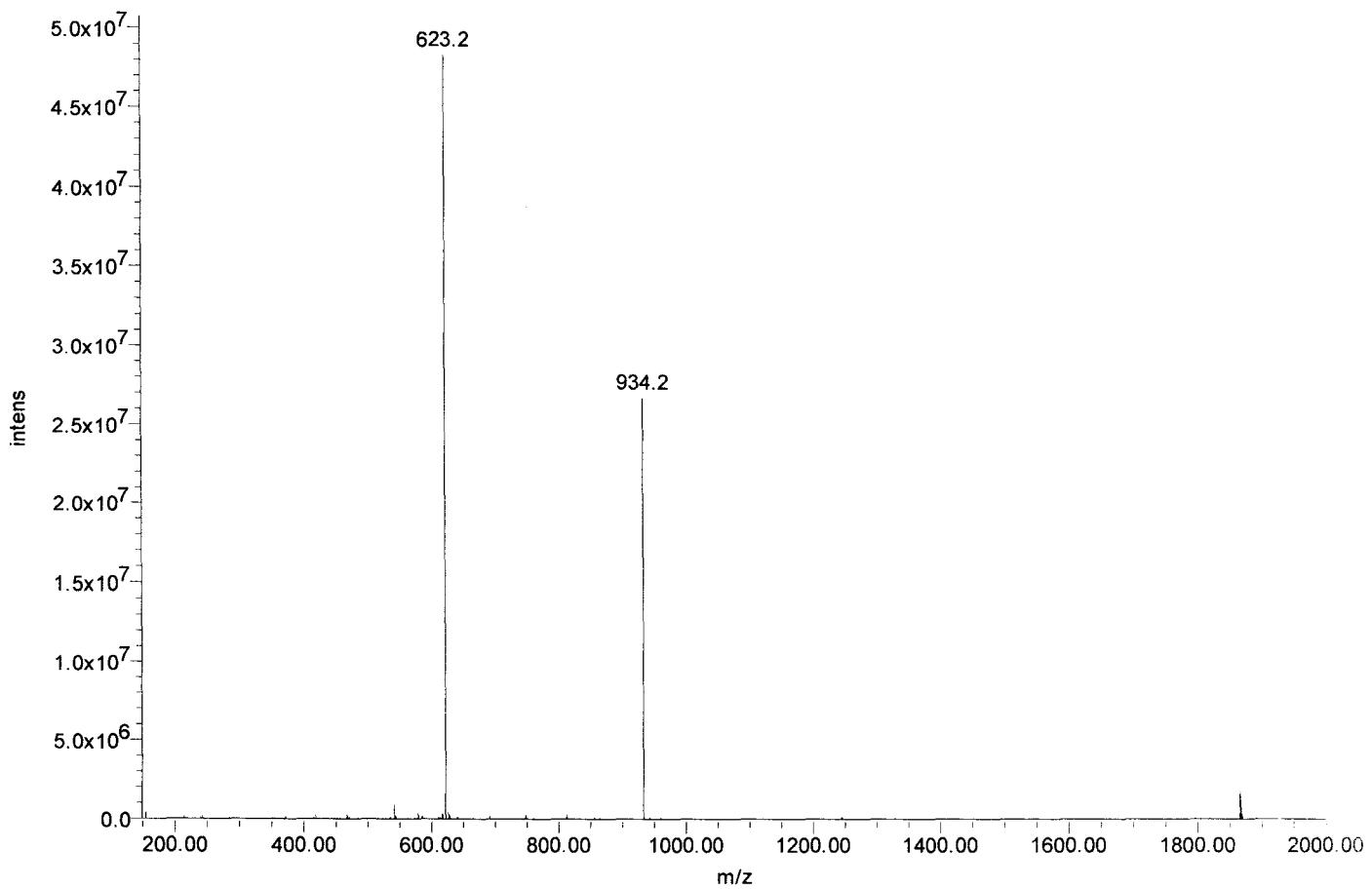
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #194  
EPAQEEHDKYHSNVK  
Cat#5903 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344934                   **Lot #:** SW05122T  
**Sequence:** Glu-Pro-Ala-Gln-Glu-Glu-His-Asp-Lys-Tyr-His-Ser-Asn-Val-Lys  
**Molecular Weight:** 1810.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 70.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/20/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.01		His	2.00	1.96	Ser	1.00	0.80
Asx	2.00	2.00		Lys	2.00	1.95	Tyr	1.00	0.97
Glx	4.00	3.85		Pro	1.00	0.85	Val	1.00	1.08

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/22/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

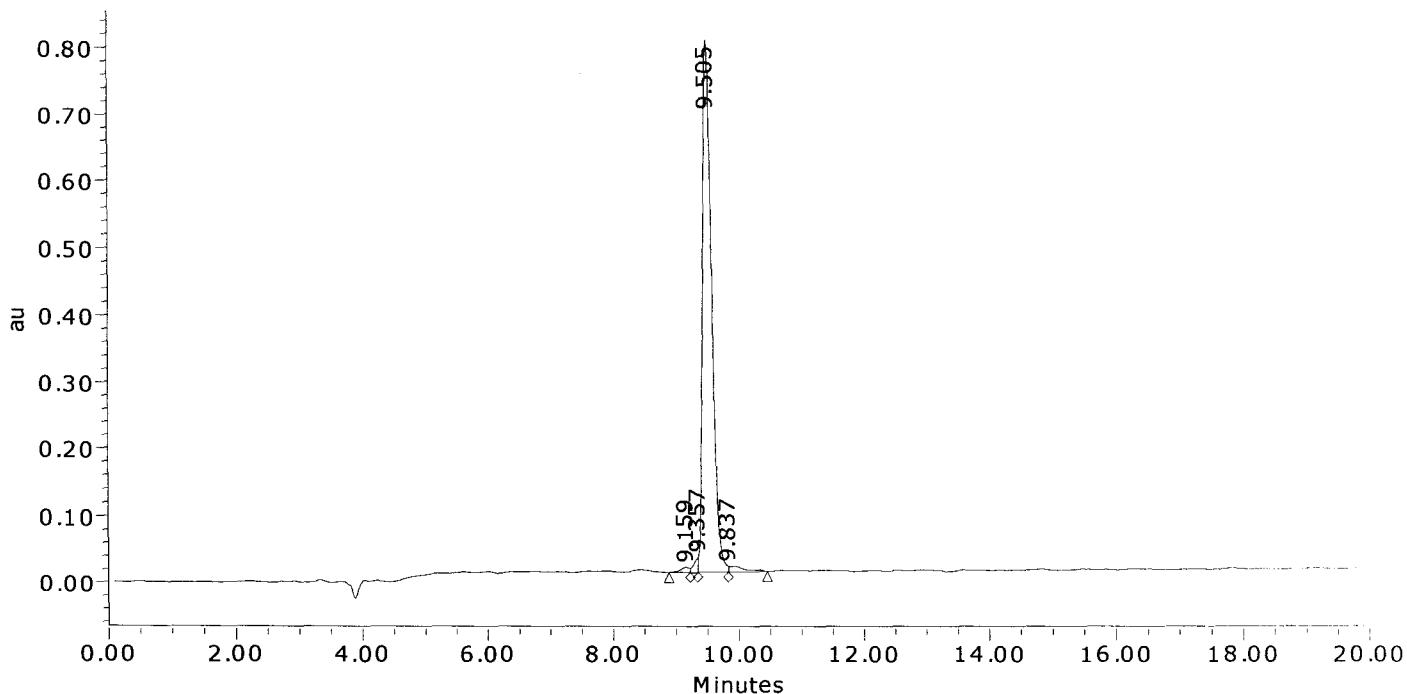
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344934/SW05122T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/21/2008 10:19:15 CST
Sample ID:	344934	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344934_A Final_PDA
Date Acquired:	5/20/2008 19:49:12 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 8%-28% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.9	9.159	79005	8025
2	1.3	9.357	107716	23570
3	95.7	9.505	8055131	796189
4	2.0	9.837	172362	9027
Sum	100.00		8414214	836810.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344934

Lot # : SW05122T

Chemist : Yan Li

Date Acquired :

5/21/2008 10:21:53 CST

Expected MS :

MW: 1810.9

Acq. Method Set :

Import

Processing Method :

344934\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

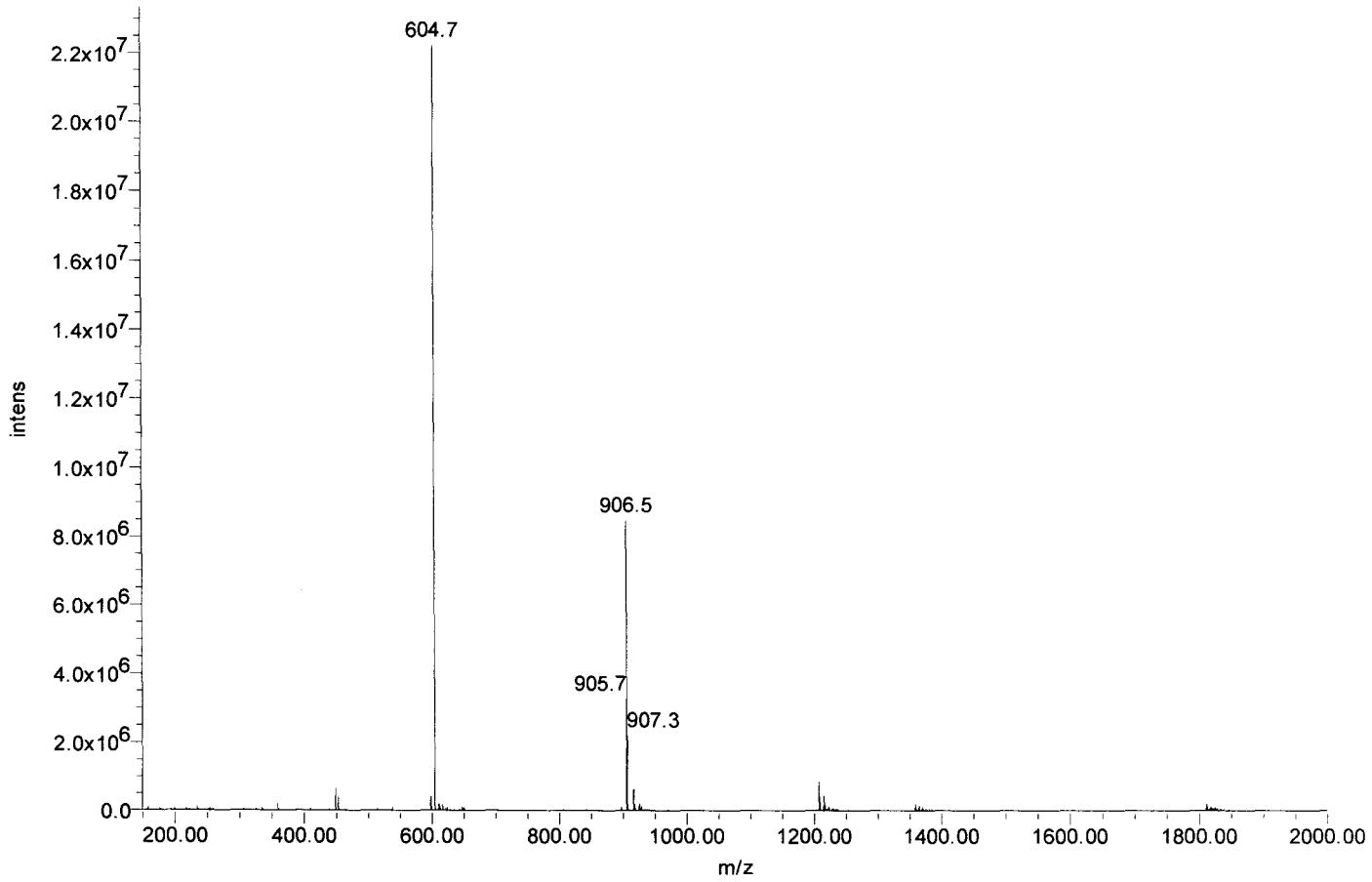
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #195  
EEHDKYHSNVKELVF  
Cat#5904 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344935                   **Lot #:** SW05251T  
**Sequence:** Glu-Glu-His-Asp-Lys-Tyr-His-Ser-Asn-Val-Lys-Glu-Leu-Val-Phe  
**Molecular Weight:** 1874.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 72.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.16		Leu	1.00	1.09		Ser	1.00	0.86	
Glx	3.00	3.00		Lys	2.00	2.07		Tyr	1.00	1.03	
His	2.00	2.09		Phe	1.00	1.04		Val	2.00	2.12	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yan Li'.

Date: 06/02/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

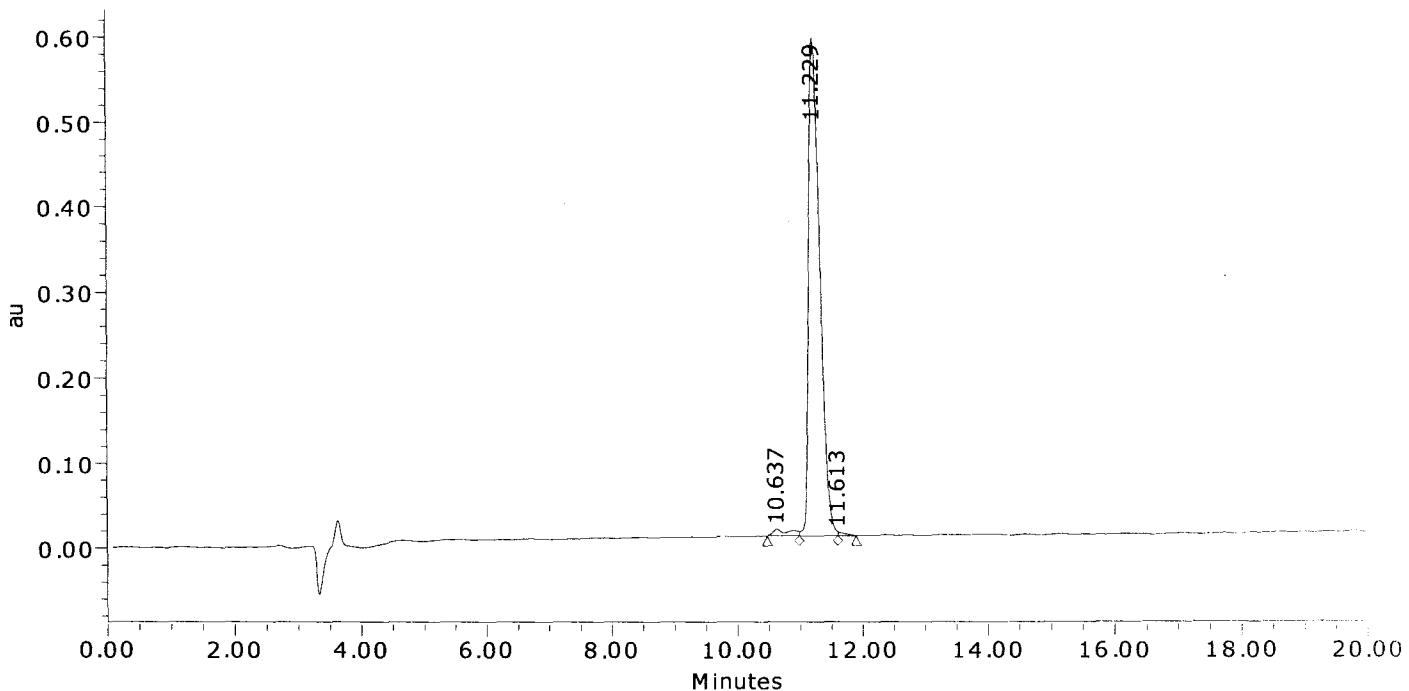
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344935/SW05251T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 16:15:18 CST  
Sample ID: 344935 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344935\_A Final\_PDA  
Date Acquired: 5/29/2008 15:20:12 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.0	10.637	148055	7845
2	97.6	11.229	7263984	584132
3	0.4	11.613	29676	4449
Sum	100.00		7441715	596425.3

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344935

Lot # : SW05251T

Chemist : Yan Li

Date Acquired :

5/29/2008 15:50:17 CST

Expected MS :

MW: 1874.1

Acq. Method Set :

Import

Processing Method :

344935\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

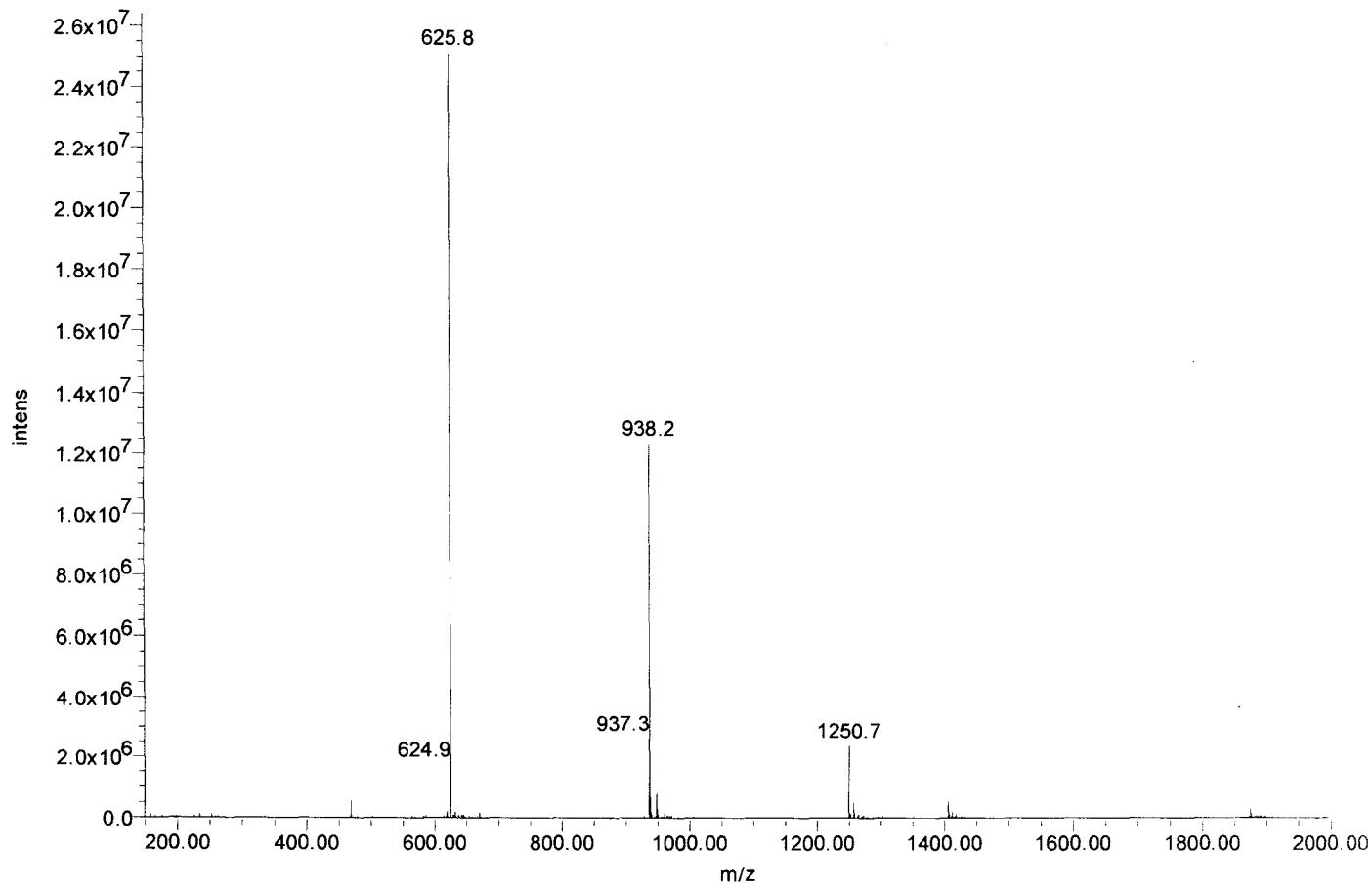
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #196  
KYHNSNVKELVFKFGI.  
Cat#5905 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344936                   **Lot #:** SW05210T  
**Sequence:** Lys-Tyr-His-Ser-Asn-Val-Lys-Glu-Leu-Val-Phe-Lys-Phe-Gly-Leu  
**Molecular Weight:** 1809.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 70.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.04		Leu	2.00	2.11		Ser	1.00	0.82	
Glx	1.00	1.00		Lys	3.00	3.02		Tyr	1.00	1.00	
Gly	1.00	1.07		Phe	2.00	2.03		Val	2.00	1.99	
His	1.00	1.02									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/30/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

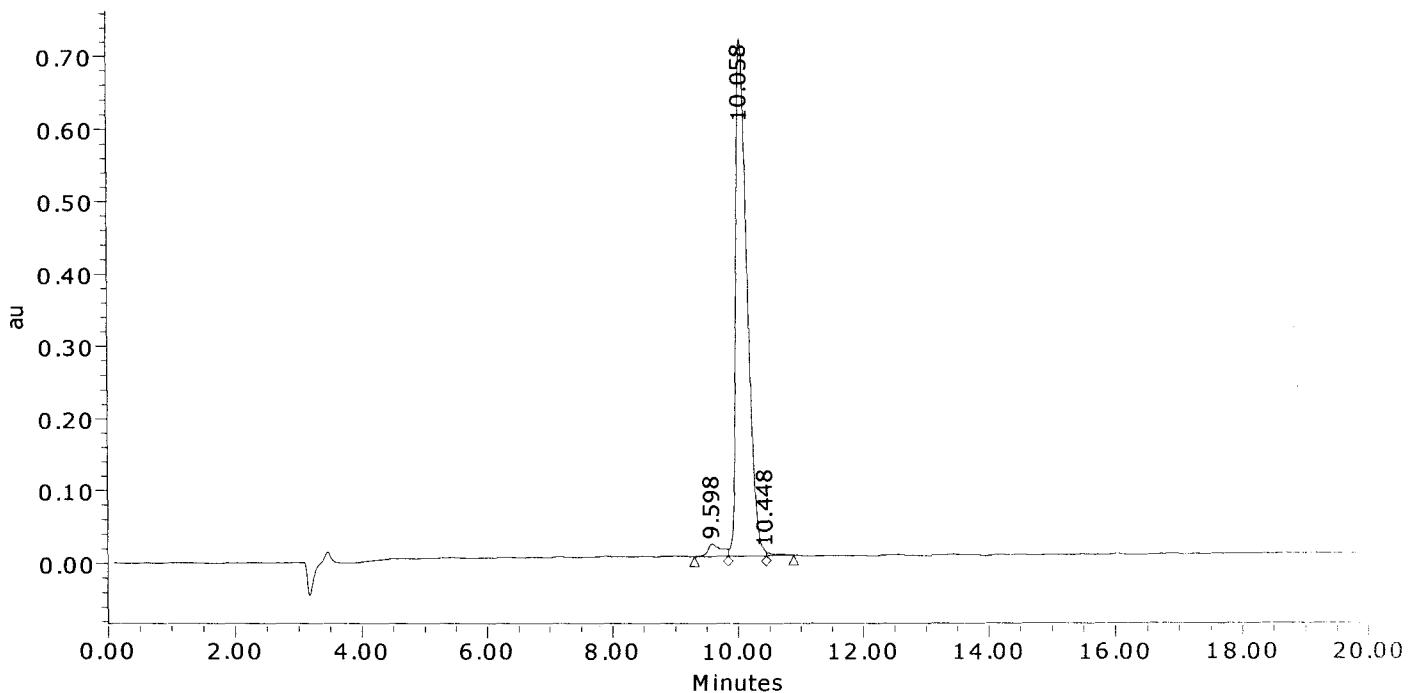
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344936/SW05210T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 13:47:47 CST  
Sample ID: 344936 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344936\_A\_Final\_PDA  
Date Acquired: 5/27/2008 11:02:32 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 27% -47% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	2.9	9.598	266105	17314
2	96.7	10.058	8954169	715009
3	0.4	10.448	36308	5503
<b>Sum</b>	<b>100.00</b>		<b>9256582</b>	<b>737825.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344936

Lot # : SW05210T

Chemist : Yan Li

Date Acquired :

5/27/2008 11:02:32 CST

Expected MS :

MW: 1809.2

Acq. Method Set :

Import

Processing Method :

344936\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

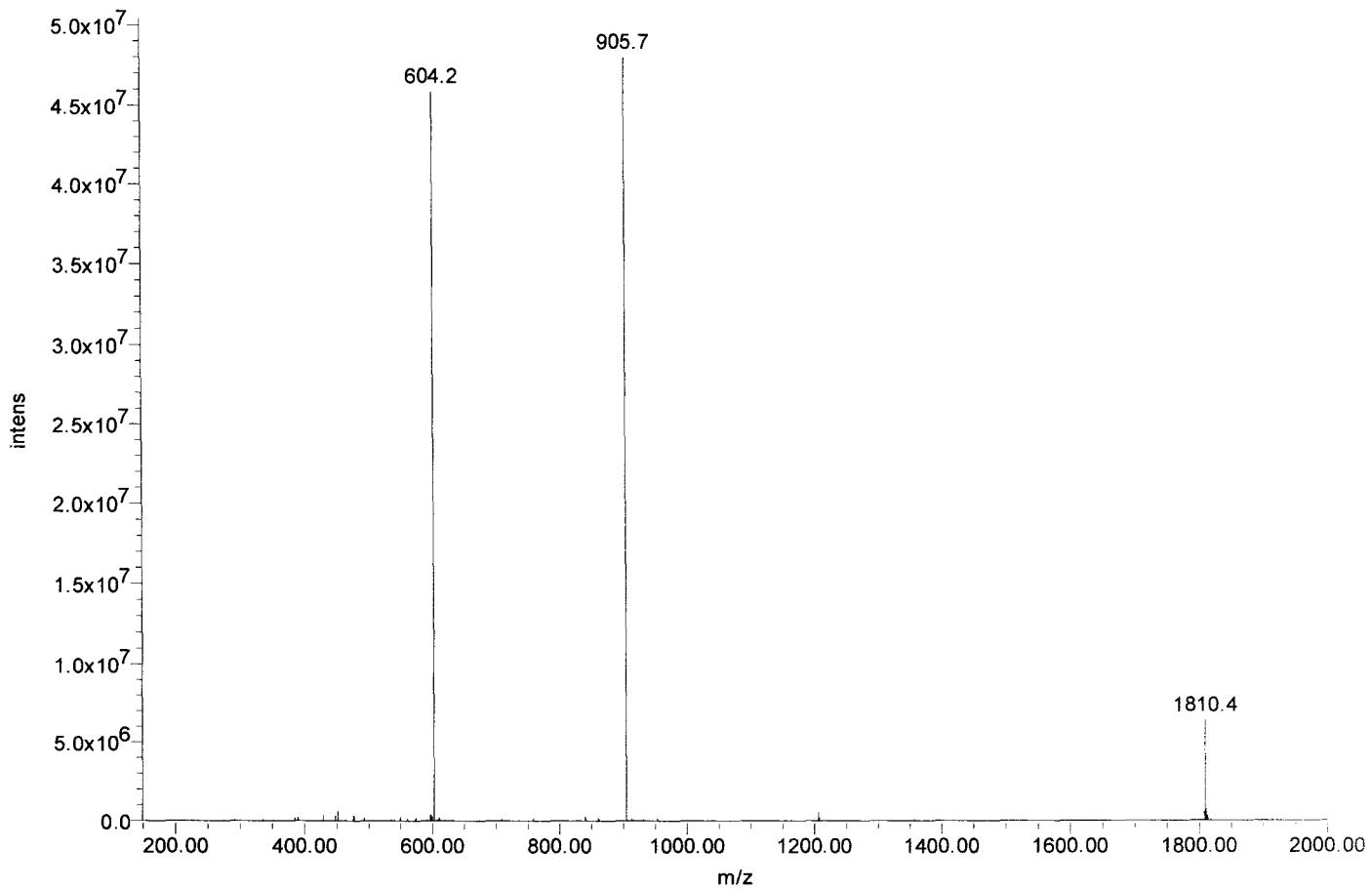
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #197  
NVKELVFKFGLPRIV  
Cat#5906 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344937                   **Lot #:** SW05154T  
**Sequence:** Asn-Val-Lys-Glu-Leu-Val-Phe-Lys-Phe-Gly-Leu-Pro-Arg-Ile-Val  
**Molecular Weight:** 1759.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.02		Ile	1.00	0.84	Phe	2.00	1.92
Asx	1.00	1.00		Leu	2.00	2.09	Pro	1.00	1.03
Glx	1.00	0.97		Lys	2.00	1.89	Val	3.00	2.69
Gly	1.00	1.01							

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/26/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

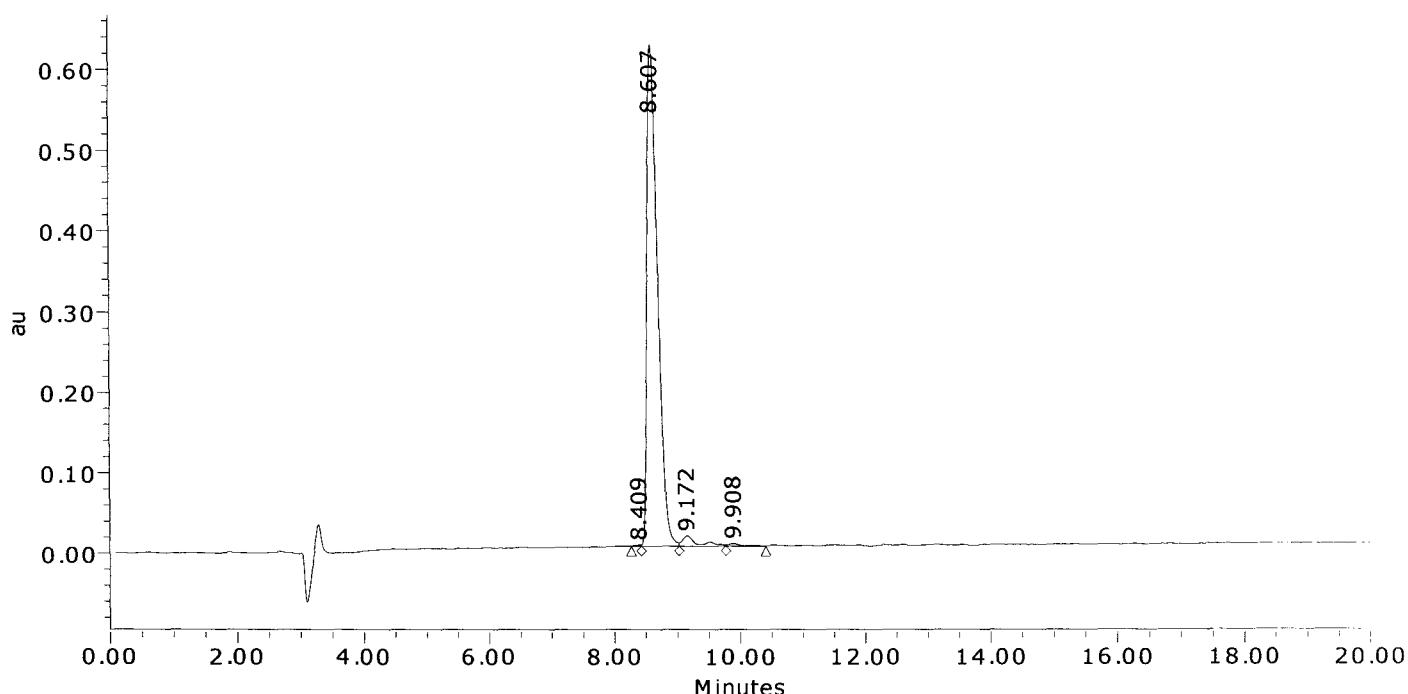
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344937/SW05154T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/22/2008 11:39:46 CST  
Sample ID: 344937 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344937\_A Final\_PDA  
Date Acquired: 5/22/2008 10:39:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.1	8.409	8493	1588
2	96.4	8.607	7279542	622823
3	2.9	9.172	218386	12784
4	0.6	9.908	44226	2825
<b>Sum</b>	<b>100.00</b>		<b>7550647</b>	<b>640020.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344937

Lot # : SW05154T

Chemist : Yan Li

Date Acquired :

5/22/2008 10:39:26 CST

Expected MS :

MW: 1759.2

Acq. Method Set :

Import

Processing Method :

344937\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

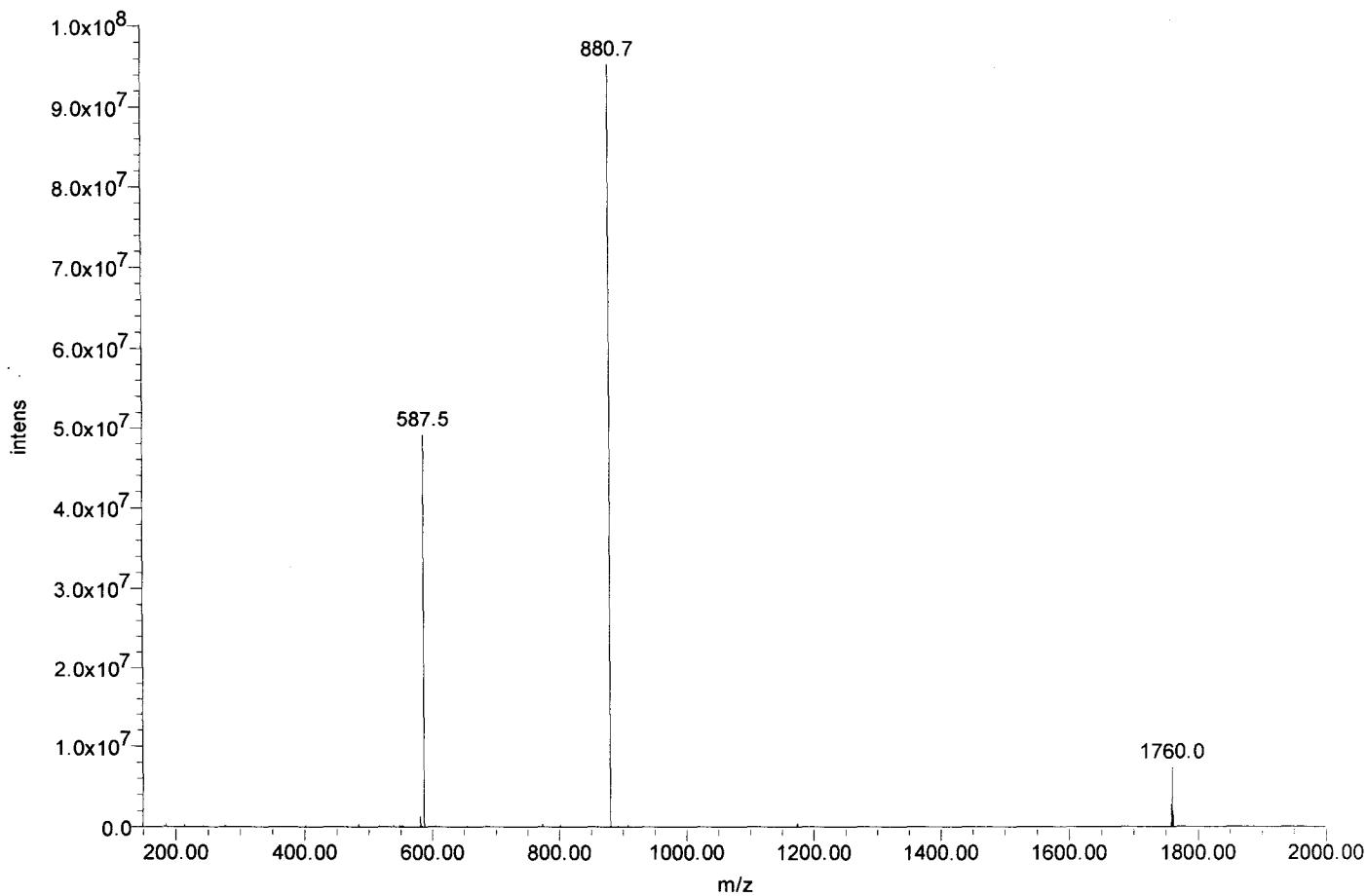
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #198  
LVFKFGLPRIVARQI  
Cat#5907 Lot#080132  
Net Wt. 1mg

**Product Name:**

Custom Peptide

**Product #:**

344938

**Lot #:** SW05166T

**Sequence:**

Leu-Val-Phe-Lys-Phe-Gly-Leu-Pro-Arg-Ile-Val-Ala-Arg-Gln-Ile

**Molecular Weight:**

1757.2 amu

**Mass Spectra Analysis:**

Electrospray " Exhibits correct MW "

(see attached MS spectrogram)

**HPLC Analysis:**

Peptide Purity: 92.1%

(see attached HPLC chromatogram)

**Solubility:**

1.0 mg/mL in 20% Acetonitrile in water

**Appearance:**

White lyophilized powder

**Peptide Content:**

75.7%

**Counter Ion:**

Trifluoroacetate

**Date of Mfg:**

05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05		Ile	2.00	1.77		Phe	2.00	2.06	
Arg	2.00	2.00		Leu	2.00	2.18		Pro	1.00	0.99	
Glx	1.00	0.97		Lys	1.00	1.04		Val	2.00	1.86	
Gly	1.00	1.04									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/26/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

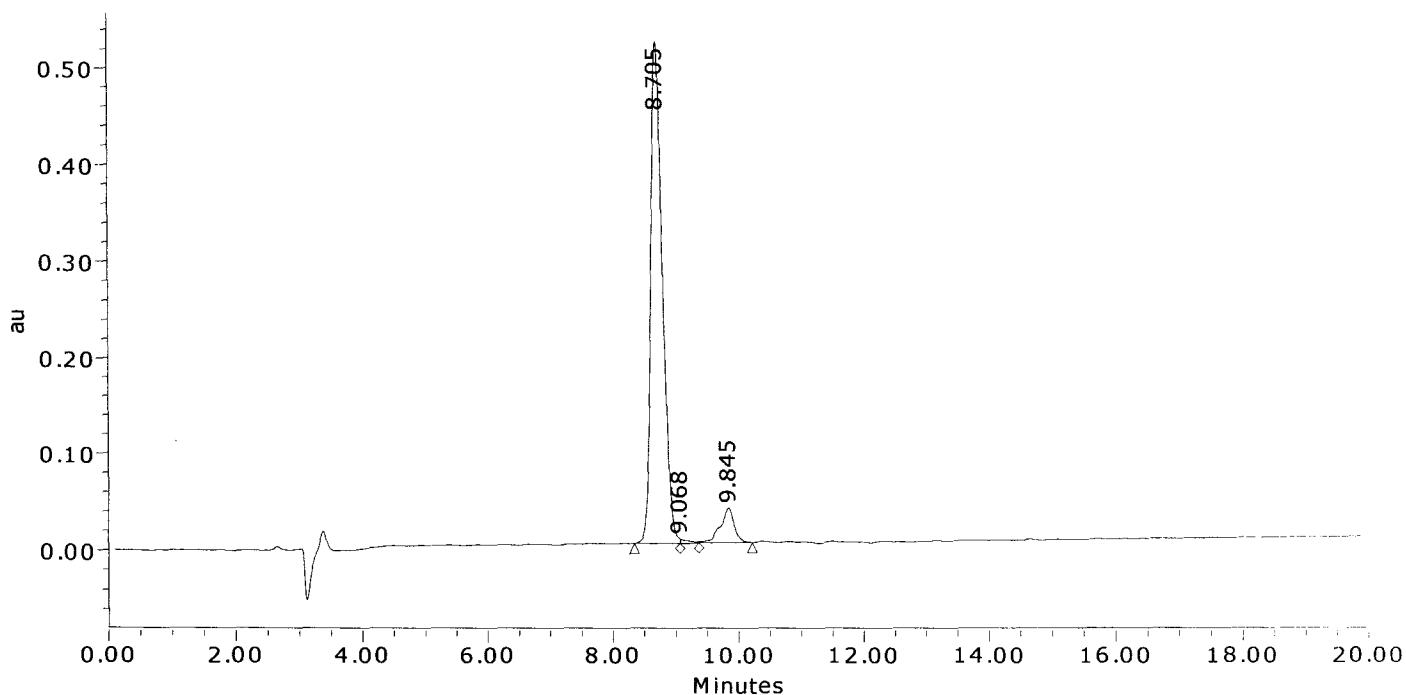
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344938/SW05166T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 14:50:57 CST  
Sample ID: 344938 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344938\_A Final\_PDA  
Date Acquired: 5/23/2008 14:15:51 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 30% -50% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	92.1	8.705	6721243	519976
2	0.5	9.068	39836	4363
3	7.4	9.845	538761	35588
Sum	100.00		7299839	559926.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344938**

**Lot # : SW05166T**

**Chemist : Yan Li**

Date Acquired :

5/23/2008 14:15:51 CST

Expected MS :

MW: 1757.2

Acq. Method Set :

Import

Processing Method :

344938\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

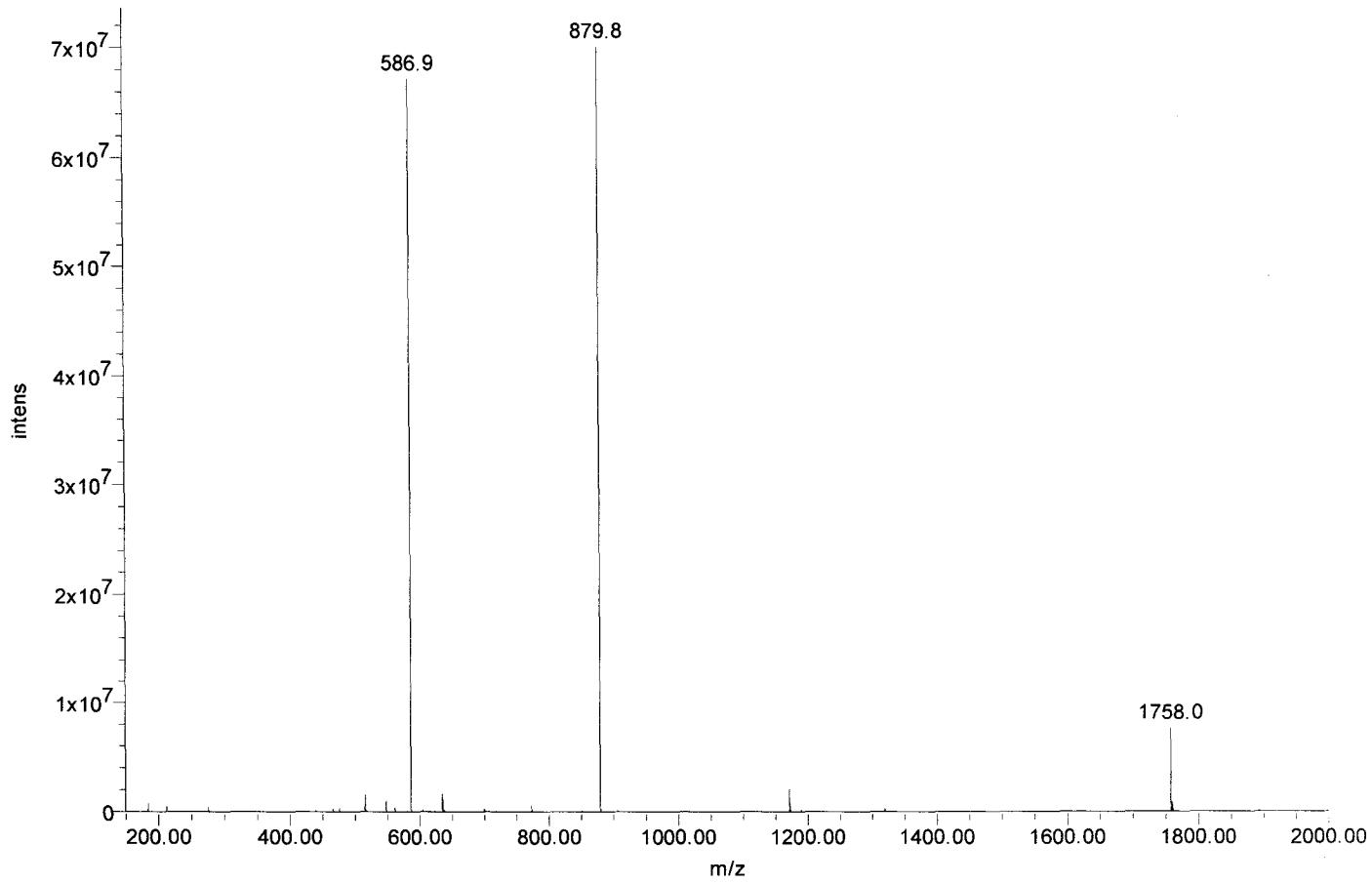
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #199  
FGLPRIVARQIVDTC  
Cat#5908 Lot#080132  
Net Wt. 1mg

**Product #:** 344939                   **Lot #:** SW05229T

**Sequence:** Phe - Gly - Leu - Pro - Arg - Ile - Val - Ala - Arg - Gln - Ile - Val - Asp - Thr - Cys

**Molecular Weight:** 1688.0 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 87.2 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 30% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 75.4 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.05		Glx	1.00	1.17		Phe	1.00	0.95	
Arg	2.00	1.99		Gly	1.00	1.00		Pro	1.00	1.08	
Asx	1.00	1.04		Ile	2.00	1.32	*2	Thr	1.00	0.80	
Cys	1.00	0.00	*1	Leu	1.00	0.99		Val	2.00	1.31	*2

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Val bond was only partially hydrolyzed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:**

*Shilpa Patel*

Date: 06/17/08

Quality Control Department

AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
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Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

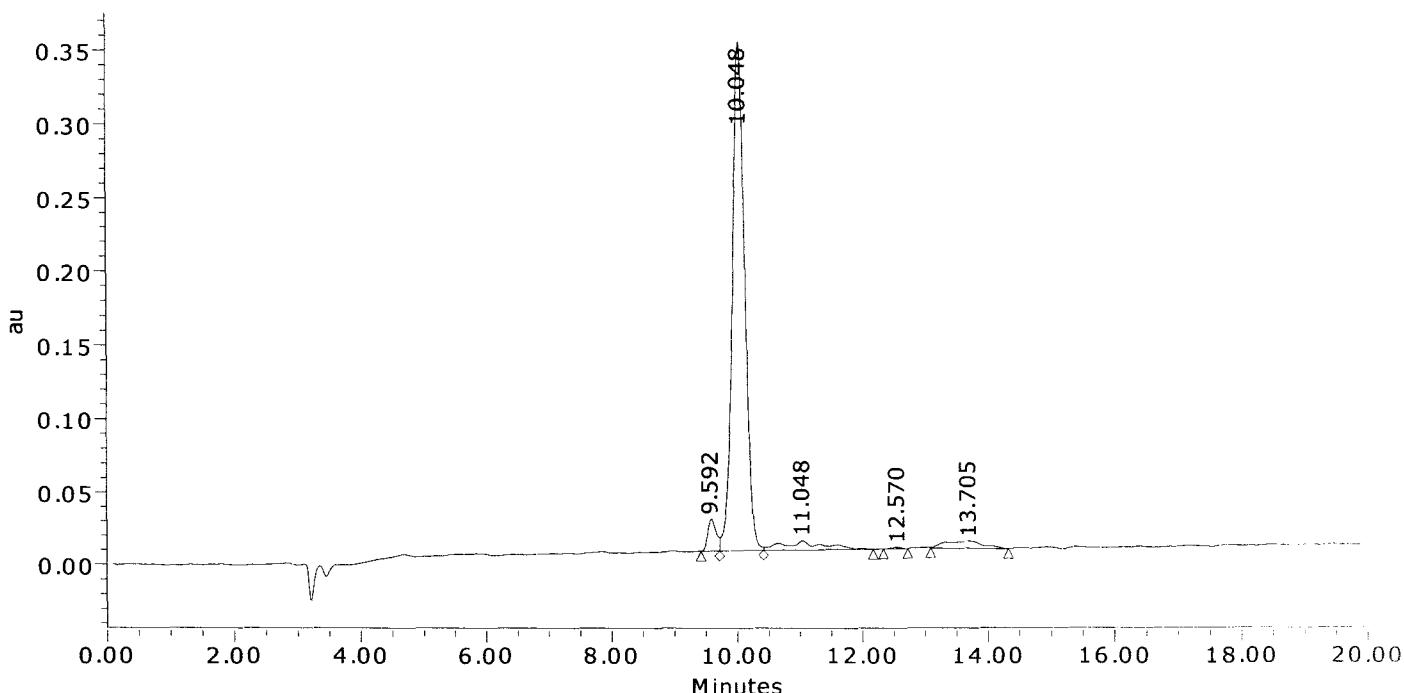
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344939/SW05229T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 9:03:49 CST  
Sample ID: 344939 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344939\_A Final\_PDA  
Date Acquired: 5/28/2008 22:49:37 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	3.8	9.592	208243	22197
2	87.2	10.048	4780132	346169
3	5.2	11.048	287136	6509
4	0.2	12.570	11056	904
5	3.5	13.705	192757	4557
<b>Sum</b>	<b>100.00</b>		<b>5479325</b>	<b>380336.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344939**

Lot # : **SW05229T**

Chemist : **Yan Li**

Date Acquired :

5/28/2008 22:49:37 CST

Expected MS:

MW: 1688.0

Acq. Method Set :

Import

Processing Method :

344939\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

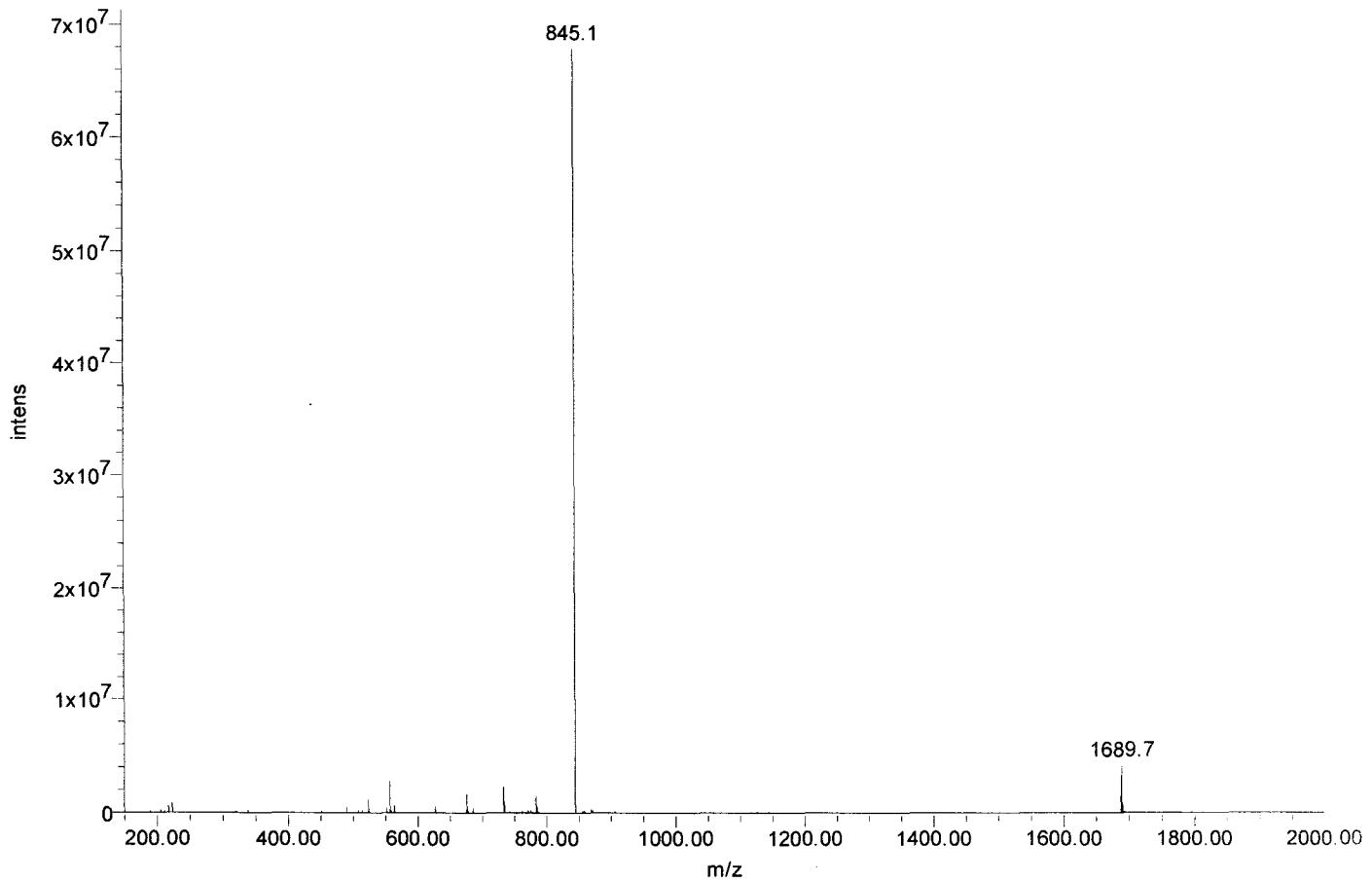
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

**Product Name:** Custom PeptideSIVmac239 Pol #200  
RIVARQIVDTCRKCH  
Cat#5909 Lot#080132  
Net Wt. 1mg**Product #:** 344940      **Lot #:** SW05168T**Sequence:** Arg - Ile - Val - Ala - Arg - Gln - Ile - Val - Asp - Thr - Cys - Asp - Lys - Cys - His**Molecular Weight:** 1757.1 amu**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)**HPLC Analysis:** Peptide Purity: 86.6 %  
(see attached RP-HPLC chromatogram)**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O**Appearance:** White lyophilized powder**Peptide Content:** 72.9 %**Counter Ion:** Trifluoroacetate**Date of Mfg:** 05/22/08**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.06		Glx	1.00	1.15		Thr	1.00	0.80	
Arg	2.00	2.00		His	1.00	1.08		Val	2.00	1.43	*2
Asx	2.00	2.10		Ile	2.00	1.43	*2				
Cys	2.00	0.00	*1	Lys	1.00	1.08					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Val bond was only partially hydrolyzed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.**Quality Assurance By:** Shilpa Patel  
Quality Control Department

Date: 06/17/08

---

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Tel: 760-597-8820 Fax: 760-597-8816

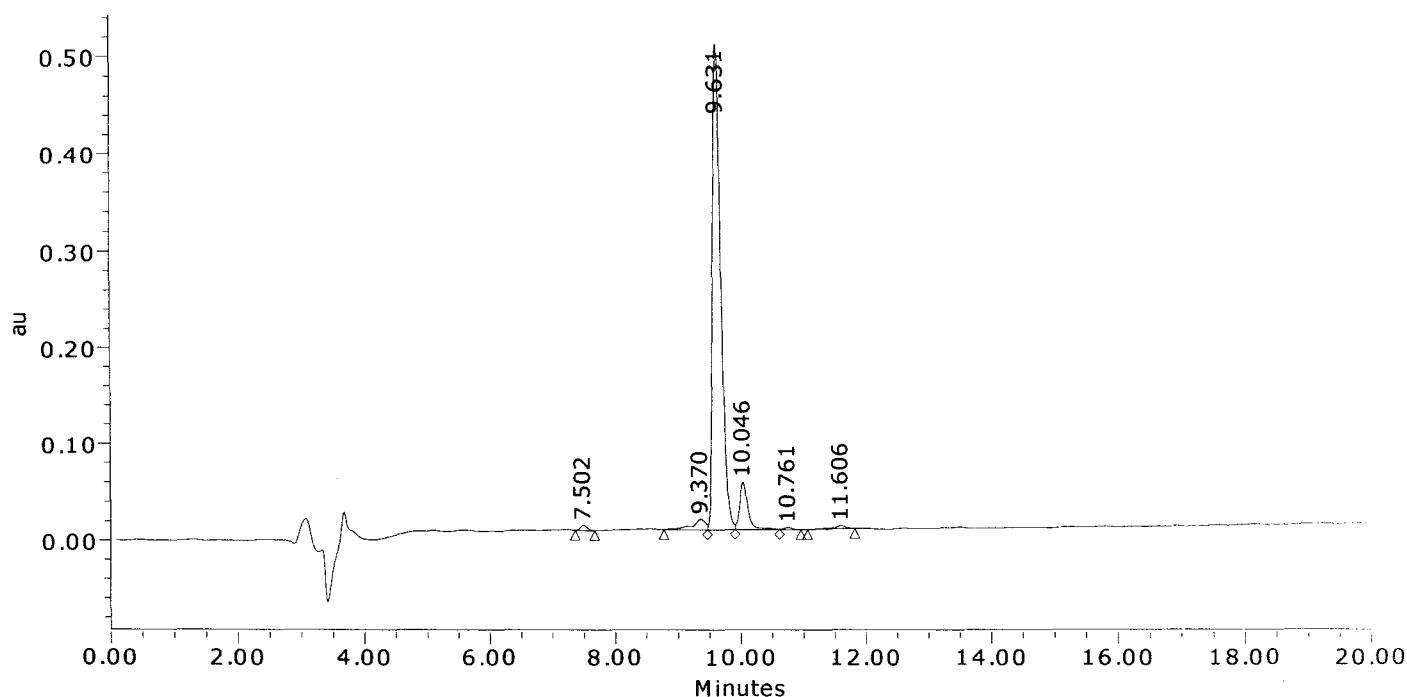
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344940/SW05168T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 10:12:04 CST  
Sample ID: 344940 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344940\_A Final\_PDA  
Date Acquired: 5/22/2008 20:55:44 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	0.7	7.502	38297	5291
2	3.0	9.370	158689	10749
3	86.6	9.631	4583697	502040
4	8.4	10.046	447277	48655
5	0.4	10.761	20854	2437
6	0.9	11.606	45556	3229
<b>Sum</b>	<b>100.00</b>		<b>5294370</b>	<b>572401.3</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344940

Lot # : SW05168T

Chemist : Yan Li

Date Acquired :

5/22/2008 20:55:44 CST

Expected MS :

MW: 1757.1

Acq. Method Set :

Import

Processing Method :

344940\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

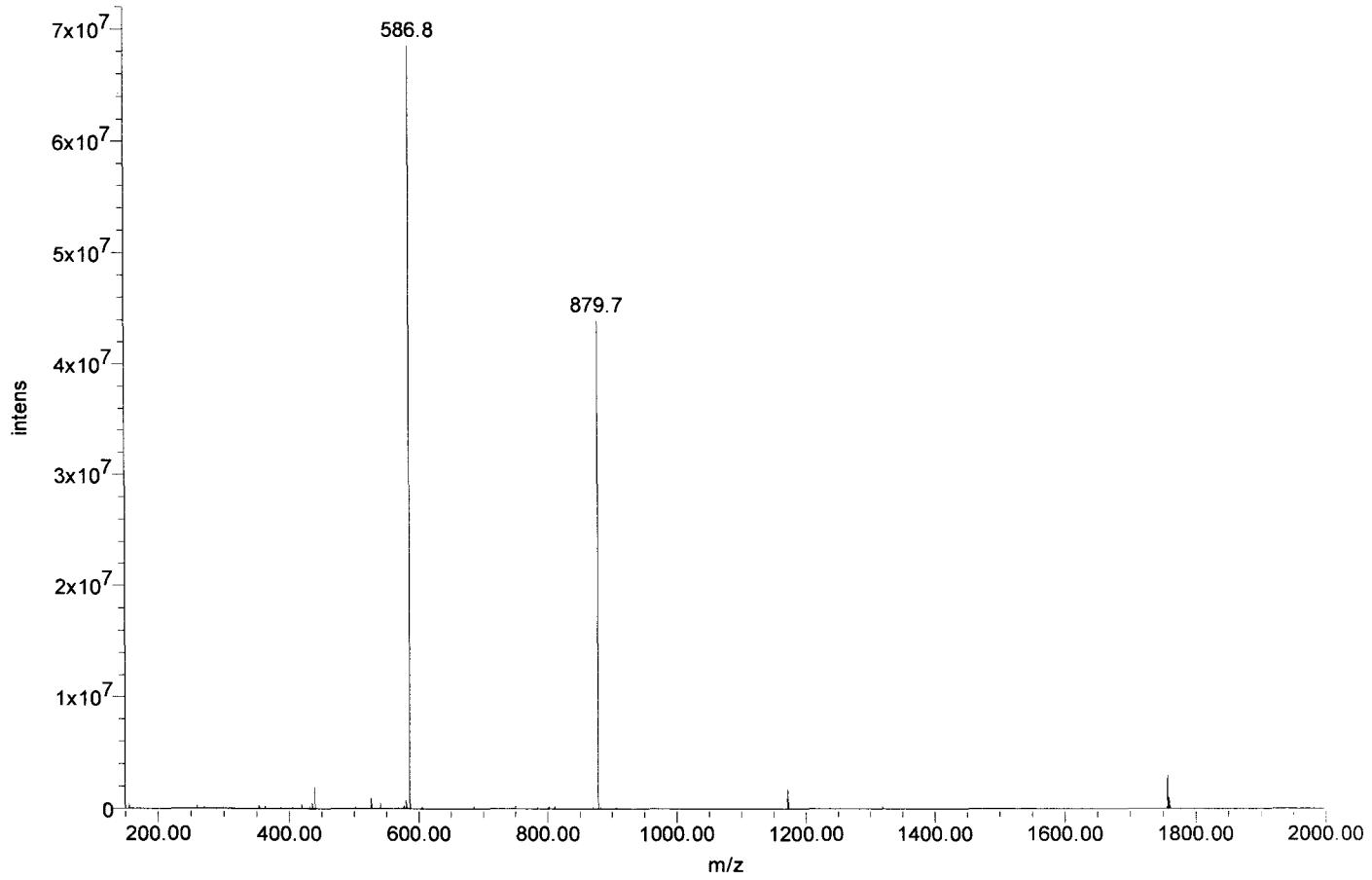
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #201  
RQIVDTCDKCHQKGE  
Cat#5910 Lot#080132  
Net Wt. 1mg

**Product #:** 344941      **Lot #:** SW05177T

**Sequence:** Arg - Gln - Ile - Val - Asp - Thr - Cys - Asp - Lys - Cys - His - Gln - Lys - Gly - Glu

**Molecular Weight:** 1760.0 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 87.7 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 64.0 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Arg	1.00	1.04		Gly	1.00	1.00		Thr	1.00	0.81	
Asx	2.00	2.07		His	1.00	1.05		Val	1.00	0.68	*2
Cys	2.00	0.00	*1	Ile	1.00	0.71	*2				
Glx	3.00	3.15		Lys	2.00	2.08					

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Val bond was only partially hydrolyzed during hydrolysis.

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

**Quality Assurance By:** Shriya Patel Date: 06/17/08  
Quality Control Department

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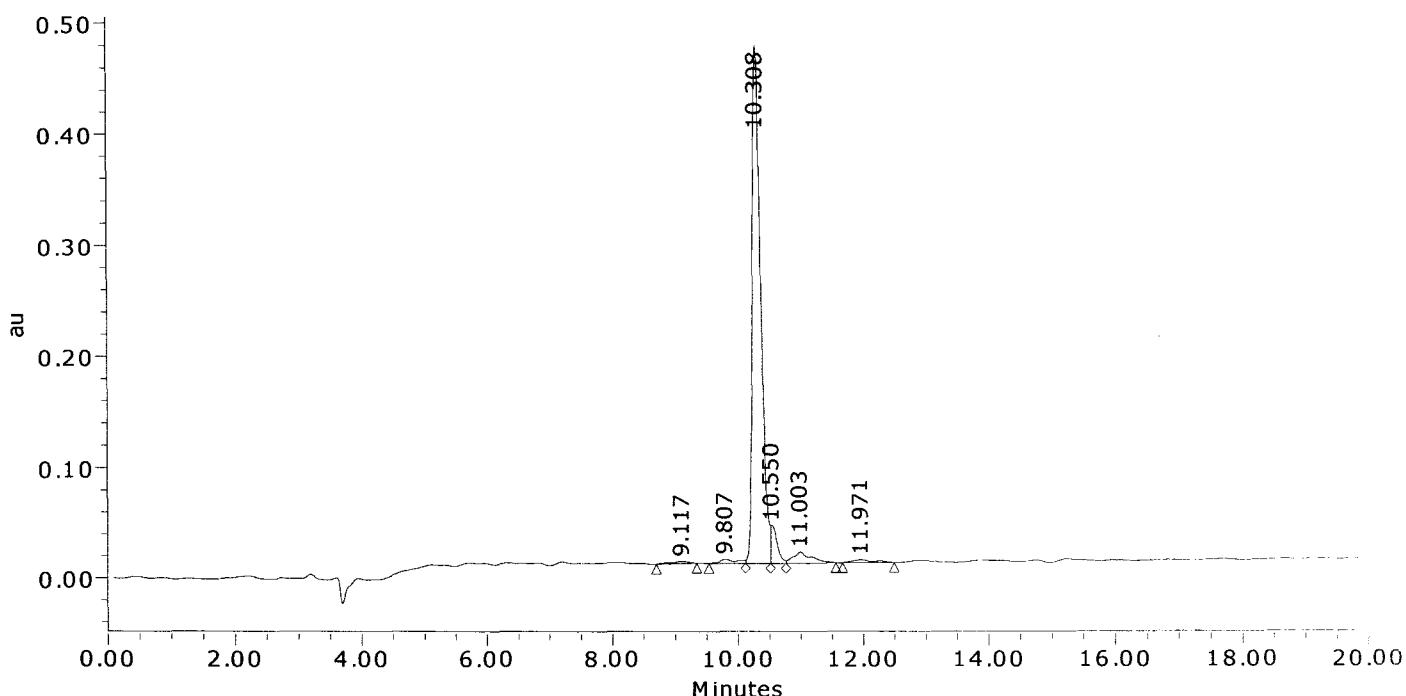
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344941/SW05177T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 11:25:08 CST  
Sample ID: 344941 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344941\_A Final\_PDA  
Date Acquired: 5/26/2008 18:08:38 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 10% -30% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.8	9.117	42618	2079
2	1.2	9.807	62705	3520
3	87.7	10.308	4405025	466504
4	4.8	10.550	242388	34446
5	4.2	11.003	208824	10231
6	1.3	11.971	63437	2647
Sum	100.00		5024997	519425.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344941

Lot # : SW05177T

Chemist : Yan Li

Date Acquired :

5/26/2008 18:08:38 CST

Expected MS :

MW: 1760.0

Acq. Method Set :

Import

Processing Method :

344941\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

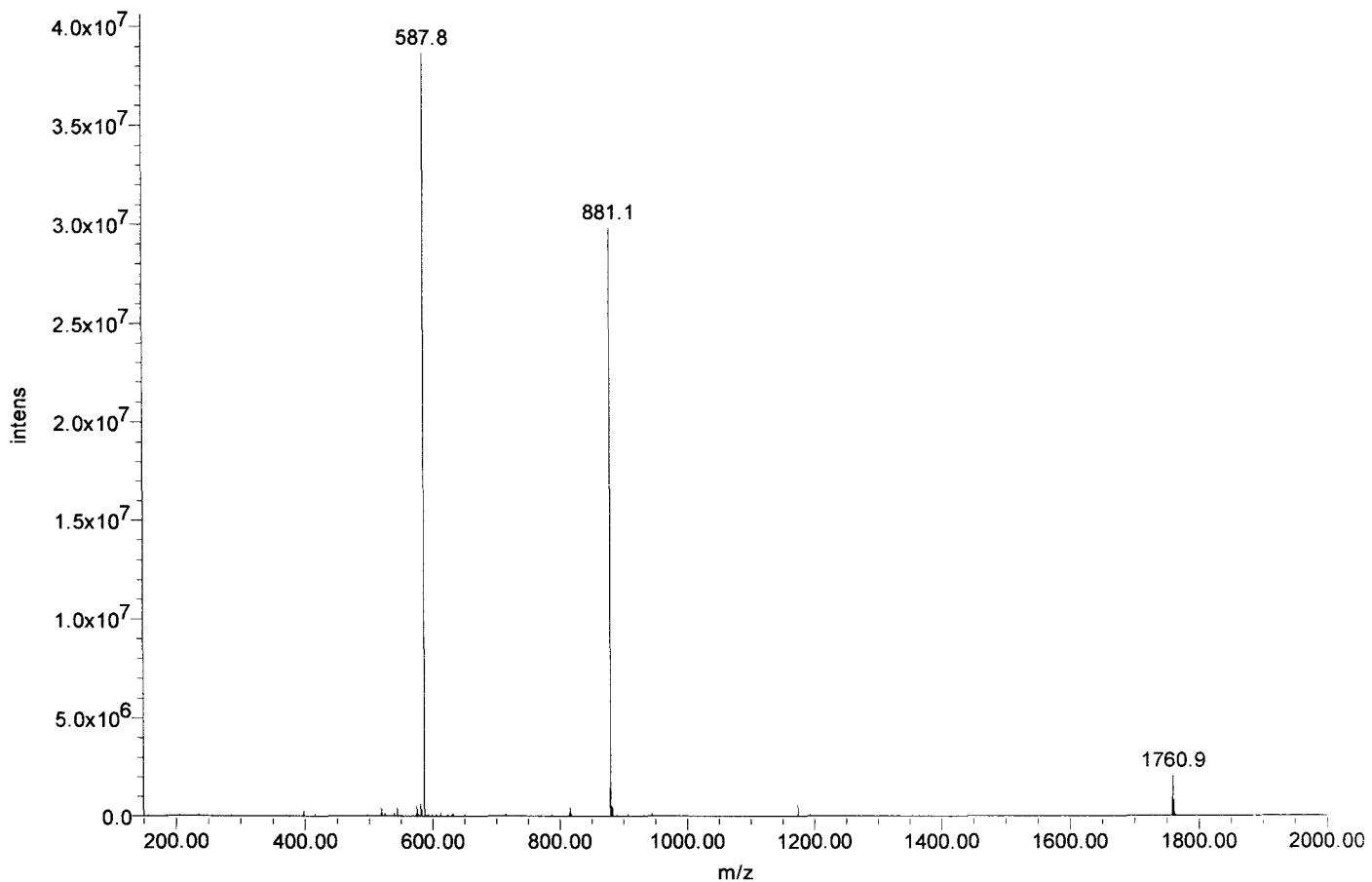
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

**Product Name:** Custom PeptideSIVmac239 Pol #202  
DTCDKCHQKGEAIHG  
Cat#5911 Lot#080132  
Net Wt. 1mg**Product #:** 344942      **Lot #:** SW05156T**Sequence:** Asp - Thr - Cys - Asp - Lys - Cys - His - Gln - Lys - Gly - Glu - Ala - Ile - His - Gly**Molecular Weight:** 1641.8 amu**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)**HPLC Analysis:** Peptide Purity: 86.4 %  
(see attached RP-HPLC chromatogram)**Solubility:** 1 mg/mL in 10% Acetonitrile in H<sub>2</sub>O**Appearance:** White lyophilized powder**Peptide Content:** 73.8 %**Counter Ion:** Trifluoroacetate**Date of Mfg:** 05/23/08**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	1.00	1.10		Glx	2.00	2.34		Ile	1.00	0.91	
Asx	2.00	2.00		Gly	2.00	2.21		Lys	2.00	2.11	
Cys	2.00	0.00	*1	His	2.00	1.98		Thr	1.00	0.80	

**Remarks:** \*1 Cys was completely destroyed during hydrolysis.**Not for human use, research purposes only.****IMPORTANT: Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.****Quality Assurance By:***Shilpa Patel*

Date: 06/16/08

Quality Control Department

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**AMERICAN PEPTIDE COMPANY, INC.**

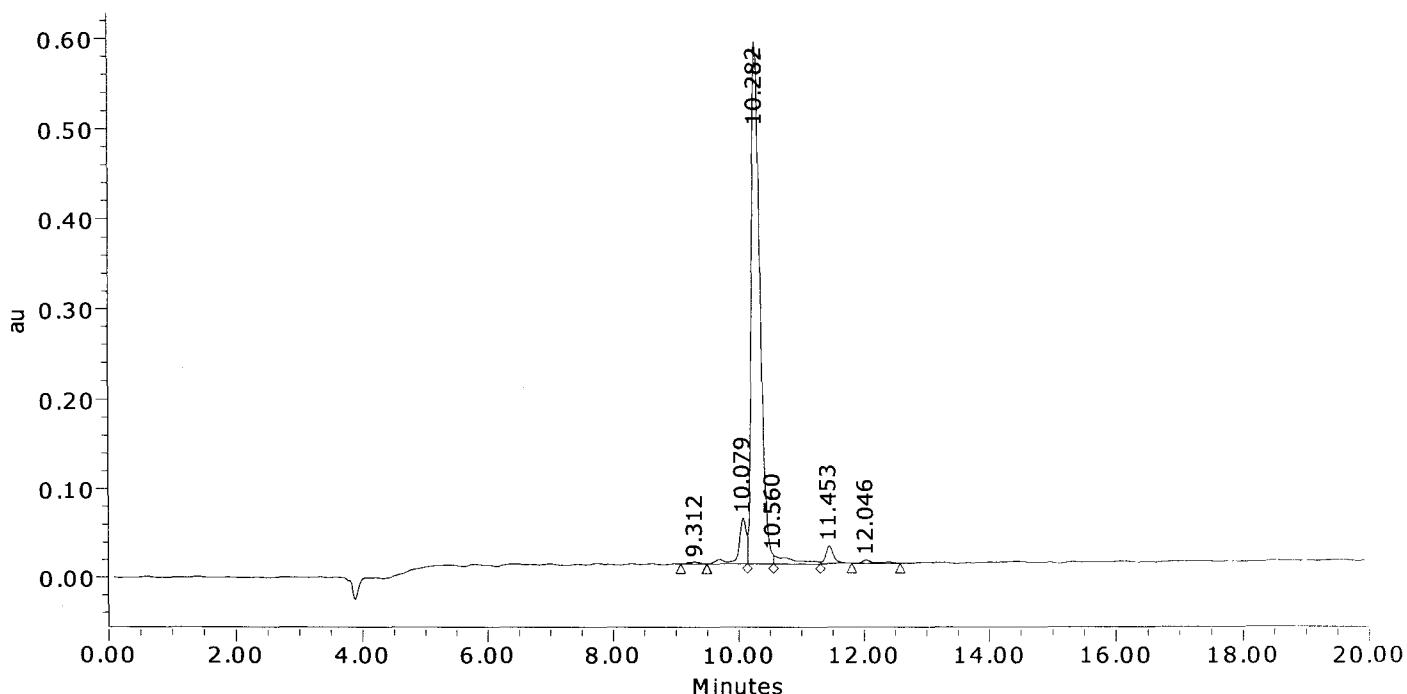
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344942/SW05156T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 10:54:55 CST  
Sample ID: 344942 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344942\_A Final\_PDA  
Date Acquired: 5/23/2008 0:07:48 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 8% -28% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.4	9.312	23266	2155
2	6.8	10.079	440048	51423
3	86.4	10.282	5596123	580990
4	3.0	10.560	192787	10190
5	2.6	11.453	170725	19940
6	0.9	12.046	55300	3942
Sum	100.00		6478249	668639.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344942

Lot # : SW05156T

Chemist : Yan Li

Date Acquired :

5/23/2008 0:07:48 CST

Expected MS :

MW: 1641.8

Acq. Method Set :

Import

Processing Method :

344942\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

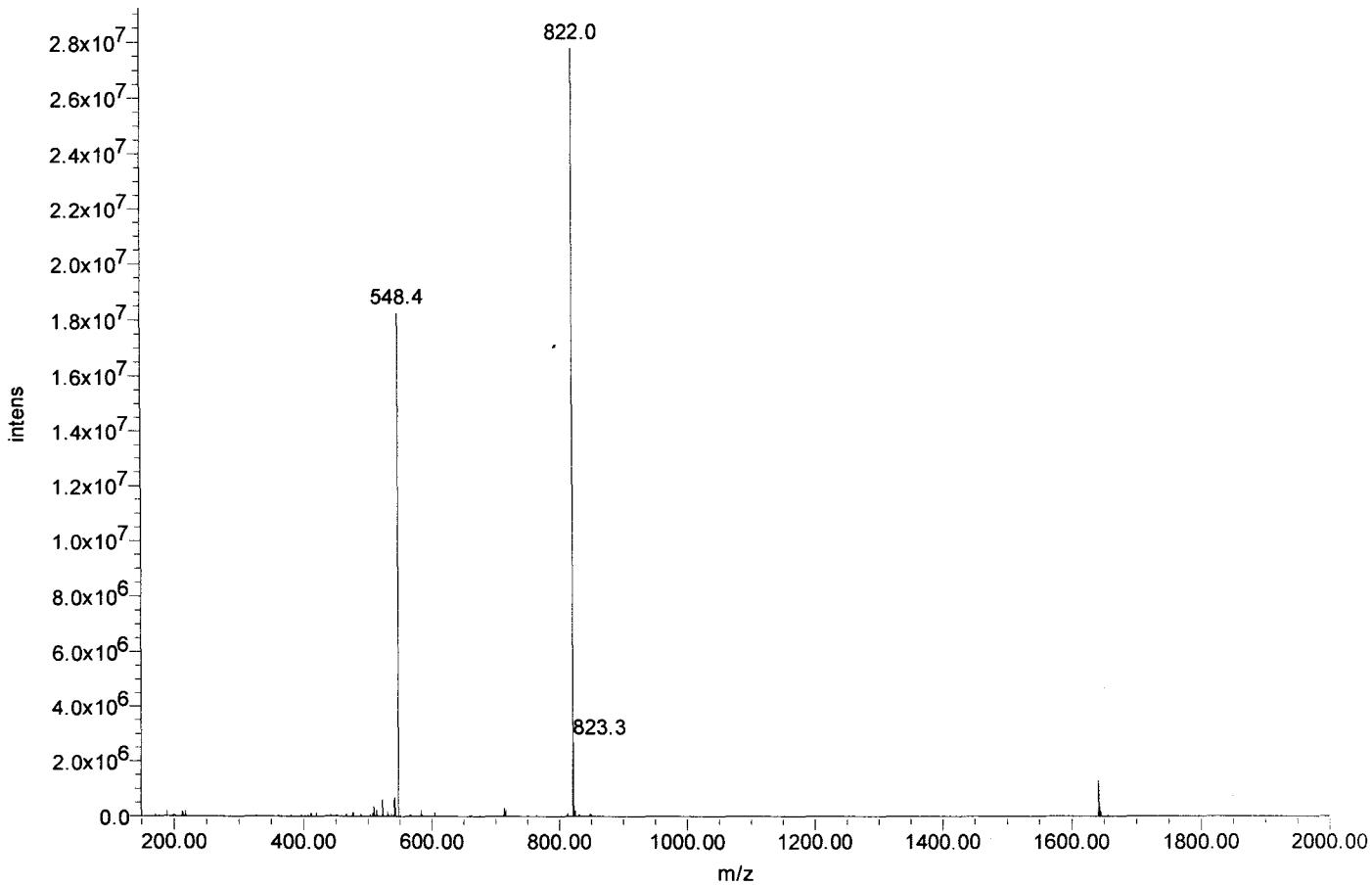
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #203  
KCHQKGAEIHGQANS  
Cat#5912 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344943                   **Lot #:** SW05169T

**Sequence:** Lys-Cys-His-Gln-Lys-Gly-Glu-Ala-Ile-His-Gly-Gln-Ala-Asn-Ser

**Molecular Weight:** 1607.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 61.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.20		Glx	3.00	3.08		Ile	1.00	1.00	
Asx	1.00	1.08		Gly	2.00	2.20		Lys	2.00	2.19	
Cys	1.00	0.00	*1	His	2.00	2.13		Ser	1.00	0.81	

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink, appearing to read 'Yanz Li'. Below the signature, the text 'Quality Control Department' is printed.

Date: 05/26/08

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Tel: 760-597-8820 Fax: 760-597-8816

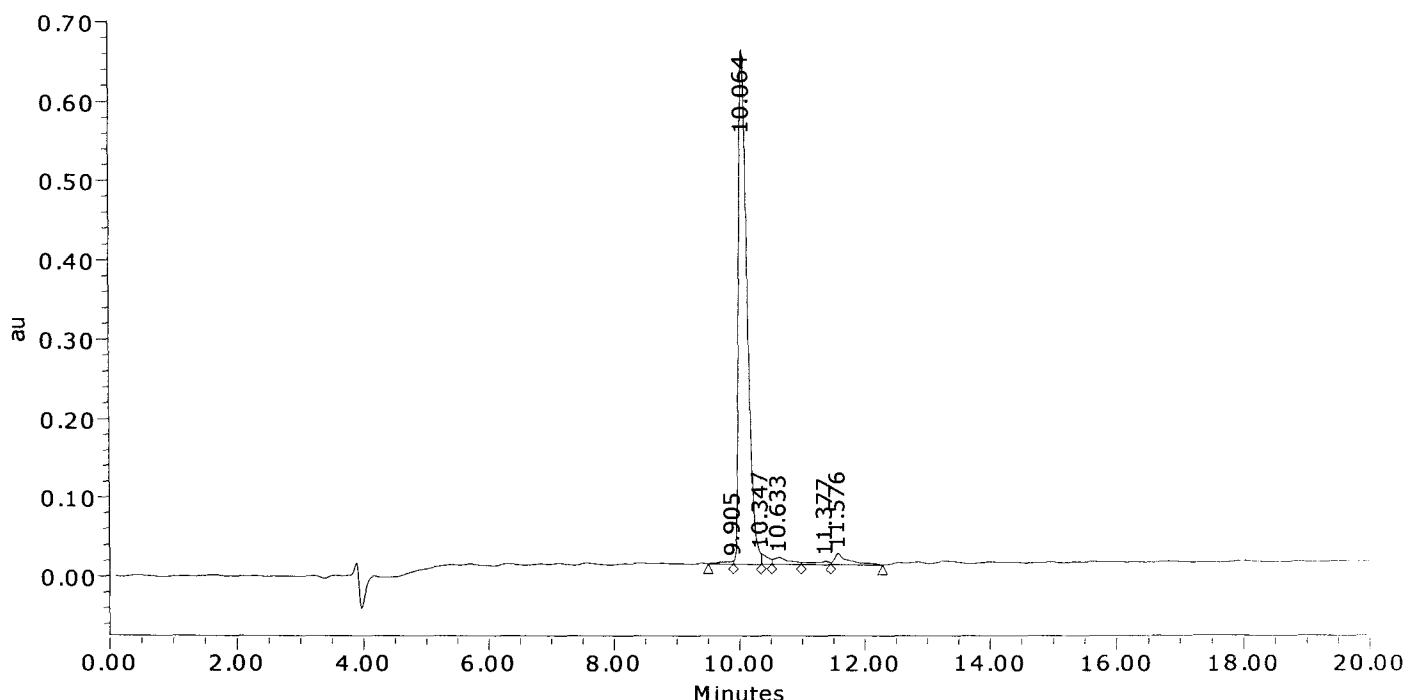
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344943/SW05169T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/23/2008 11:09:49 CST
Sample ID:	344943	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344943_A Final_PDA
Date Acquired:	5/23/2008 0:47:24 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 6% -26% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	9.905	38304	3765
2	91.8	10.064	6258511	648644
3	1.4	10.347	92598	13056
4	2.1	10.633	143670	8382
5	1.1	11.377	77865	4564
6	3.0	11.576	207562	13716
<b>Sum</b>	<b>100.00</b>		<b>6818509</b>	<b>692126.8</b>

# American Peptide Company, Inc.

## MS Analysis Report

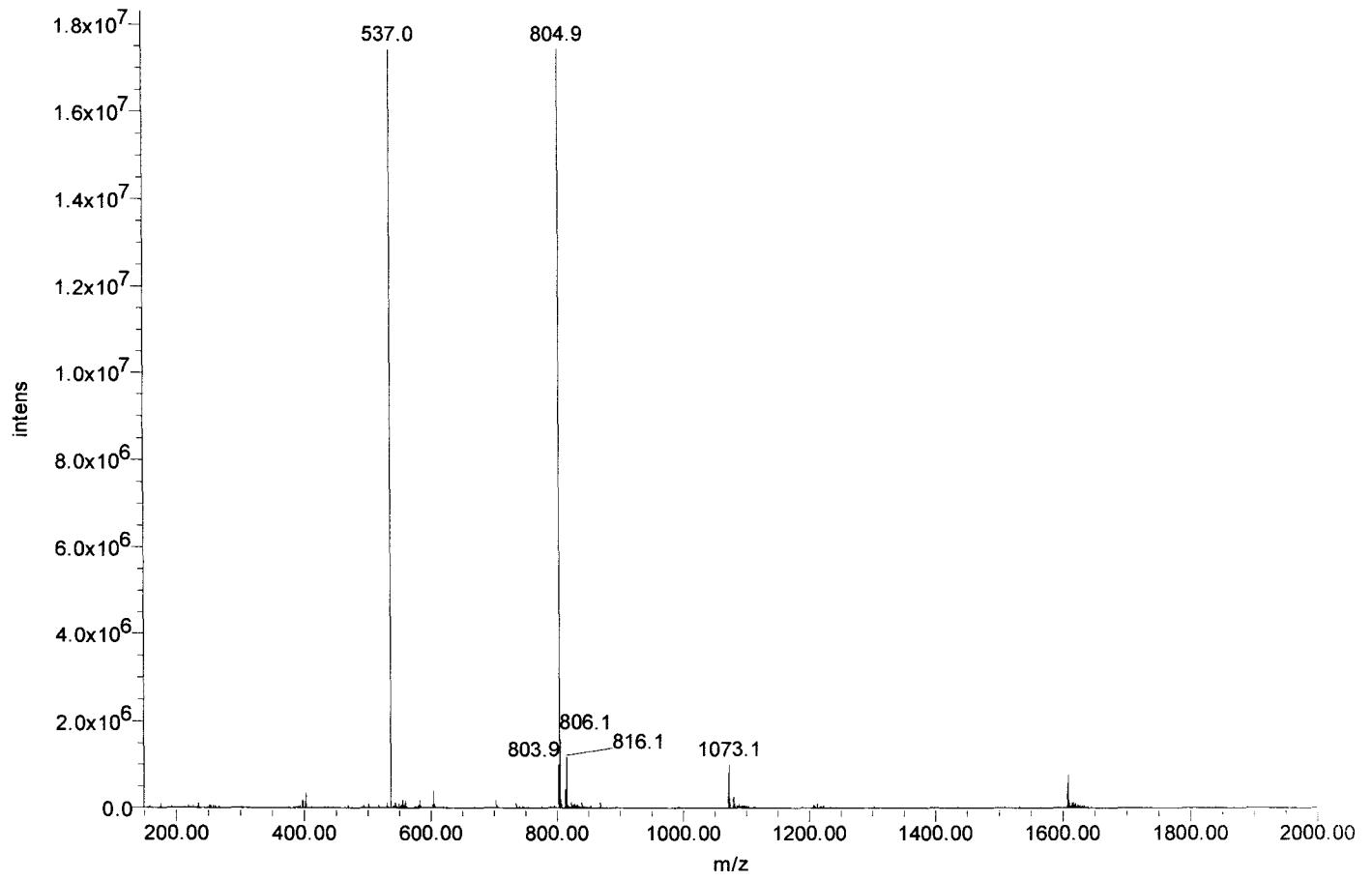
Sample ID:

344943

Lot # : SW05169T

Chemist : Yan Li

Date Acquired : 5/23/2008 12:28:32 CST  
Expected MS : MW: 1607.8  
Acq. Method Set : Import  
Processing Method : 344943\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #204  
KGEAIHGQANSSDLGT  
Cat#5913 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344944                   **Lot #:** SW05157T  
**Sequence:** Lys-Gly-Glu-Ala-Ile-His-Gly-Gln-Ala-Asn-Ser-Asp-Leu-Gly-Thr  
**Molecular Weight:** 1497.6 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 92.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 77.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.04		His	1.00	0.92		Lys	1.00	1.00	
Asx	2.00	2.00		Ile	1.00	0.88		Ser	1.00	0.83	
Glx	2.00	1.91		Leu	1.00	1.04		Thr	1.00	0.98	
Gly	3.00	3.03									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/26/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

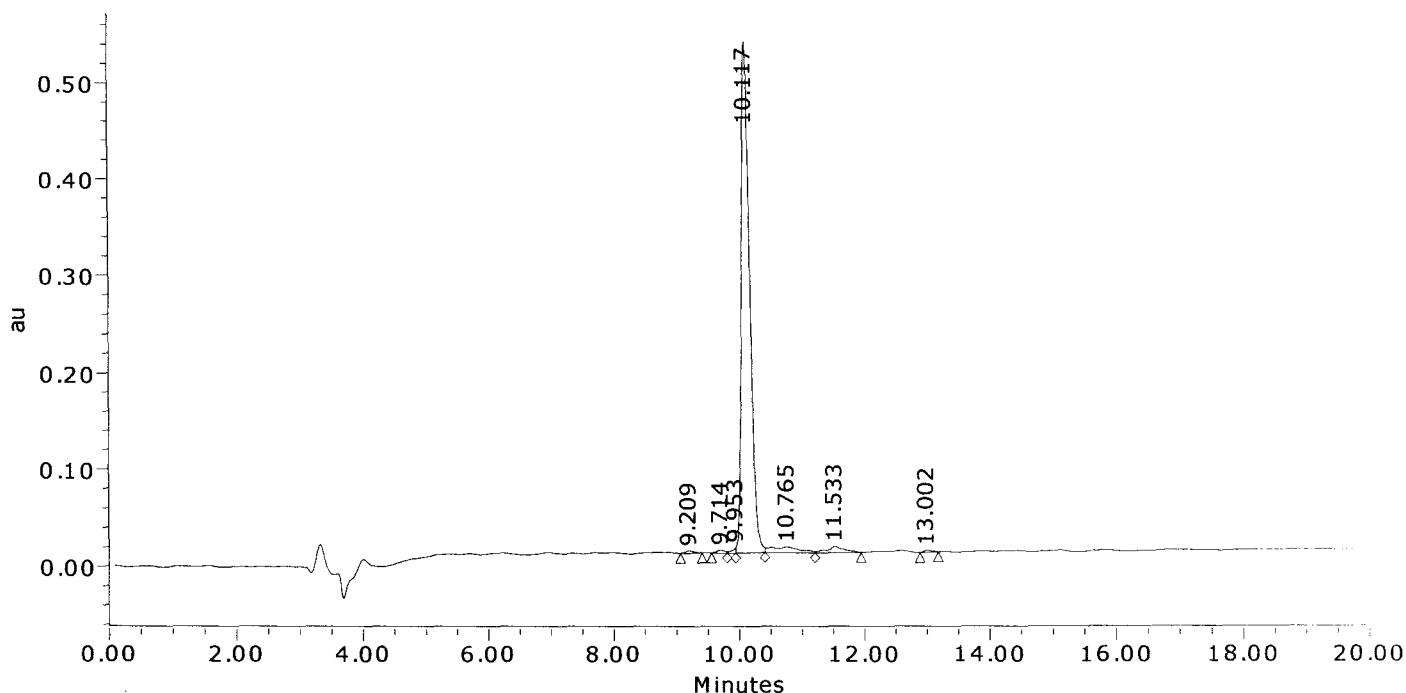
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344944/SW05157T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 10:39:13 CST  
Sample ID: 344944 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344944\_A Final\_PDA  
Date Acquired: 5/22/2008 22:50:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 10% -30% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

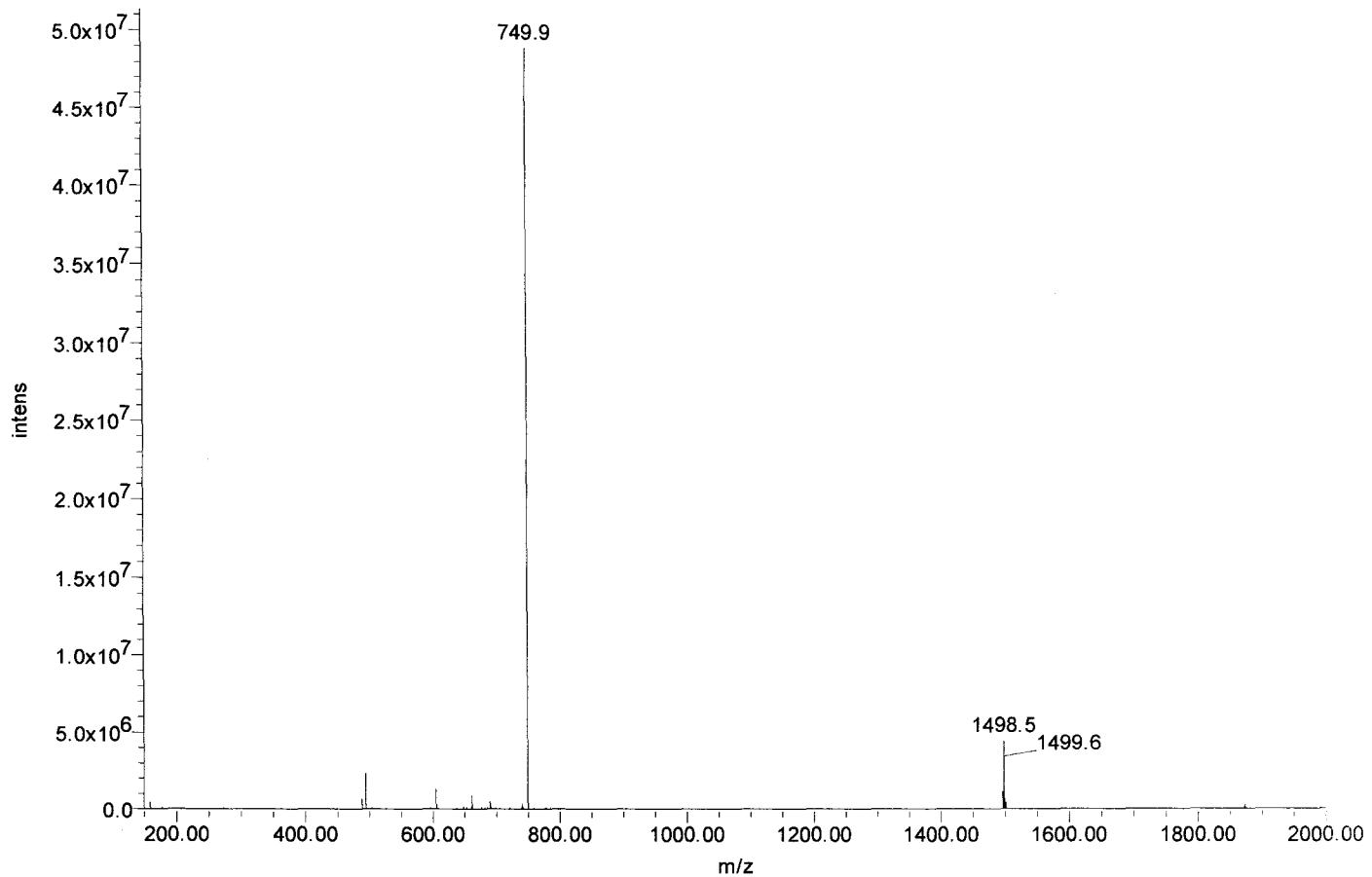


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	9.209	24363	2573
2	0.4	9.714	23457	2834
3	0.4	9.953	21580	5814
4	92.5	10.117	4916247	528352
5	3.6	10.765	192214	6009
6	2.2	11.533	118344	6249
7	0.4	13.002	18698	2271
Sum	100.00		5314902	554101.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344944      **Lot # :** SW05157T      **Chemist :** Yan Li

Date Acquired : 5/22/2008 22:50:35 CST  
Expected MS : MW: 1497.6  
Acq. Method Set : Import  
Processing Method : 344944\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #205  
IHGQANSIDLGTWQMD  
Cat#5914 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344945                   **Lot #:** SW05171T

**Sequence:** Ile-His-Gly-Gln-Ala-Asn-Ser-Asp-Leu-Gly-Thr-Trp-Gln-Met-Asp

**Molecular Weight:** 1672.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.4%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 81.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05		His	1.00	0.90		Ser	1.00	0.90	
Asx	3.00	3.07		Ile	1.00	0.86		Thr	1.00	1.04	
Glx	2.00	2.27		Leu	1.00	1.05		Trp	1.00	0.00	*1
Gly	2.00	2.00		Met	1.00	1.01					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/29/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

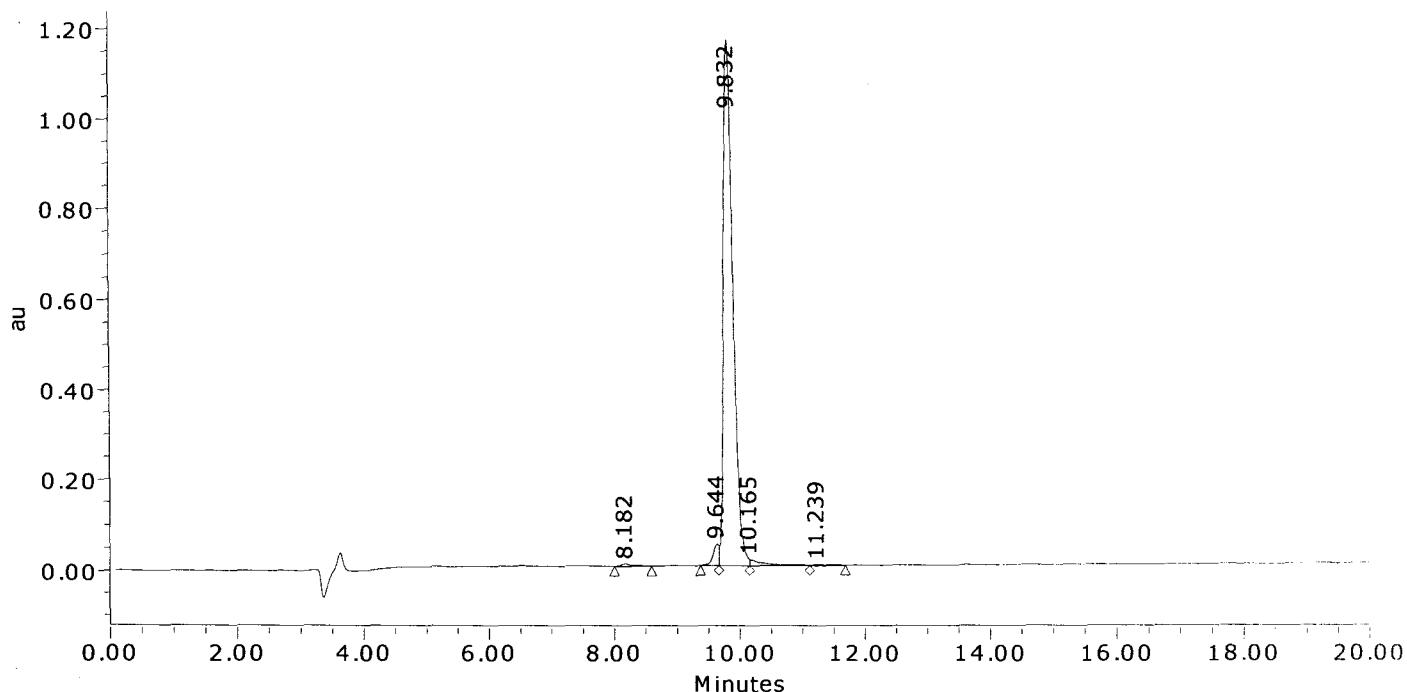
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344945/SW05171T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 13:56:14 CST  
Sample ID: 344945 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344945\_A Final\_PDA  
Date Acquired: 5/23/2008 23:32:41 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19%-39% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li

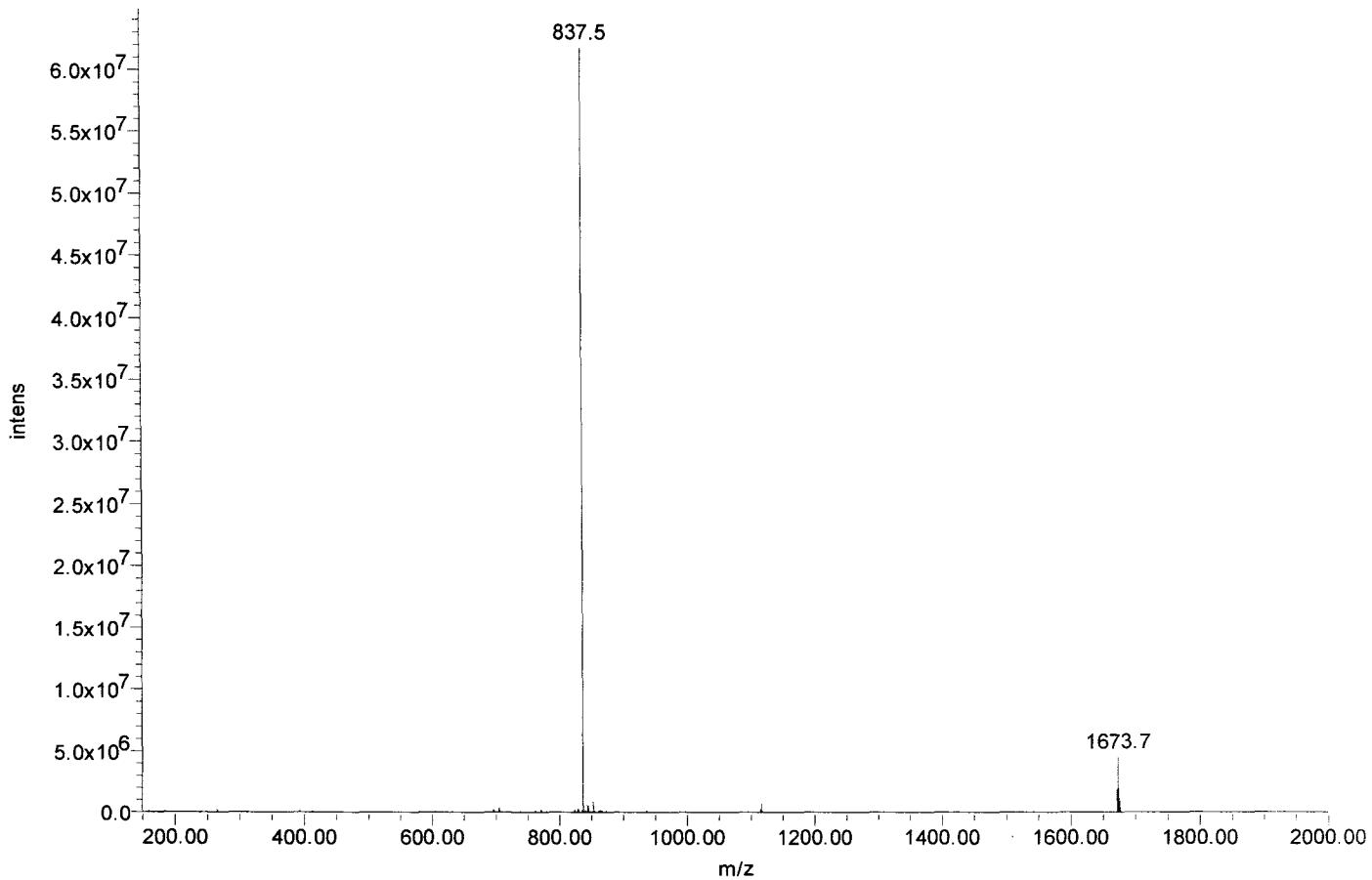


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.4	8.182	56839	5298
2	2.4	9.644	302979	46641
3	95.4	9.832	12204265	1163922
4	1.6	10.165	201056	13971
5	0.3	11.239	33648	2059
<b>Sum</b>	<b>100.00</b>		<b>12798788</b>	<b>1231889.3</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344945      **Lot # :** SW05171T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 23:32:41 CST  
Expected MS : MW: 1672.8  
Acq. Method Set : Import  
Processing Method : 344945\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #206**  
ANSDLGTWQMDCTHL  
Cat#5915 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04	Gly	1.00	1.00	Ser	1.00	0.90
Asx	3.00	3.05	His	1.00	1.03	Thr	2.00	2.04
Cys	1.00	0.00 *1	Leu	2.00	2.10	Trp	1.00	0.00 *1
Glx	1.00	1.14	Met	1.00	1.04			

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/29/08  
Quality Control Department

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7601 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA

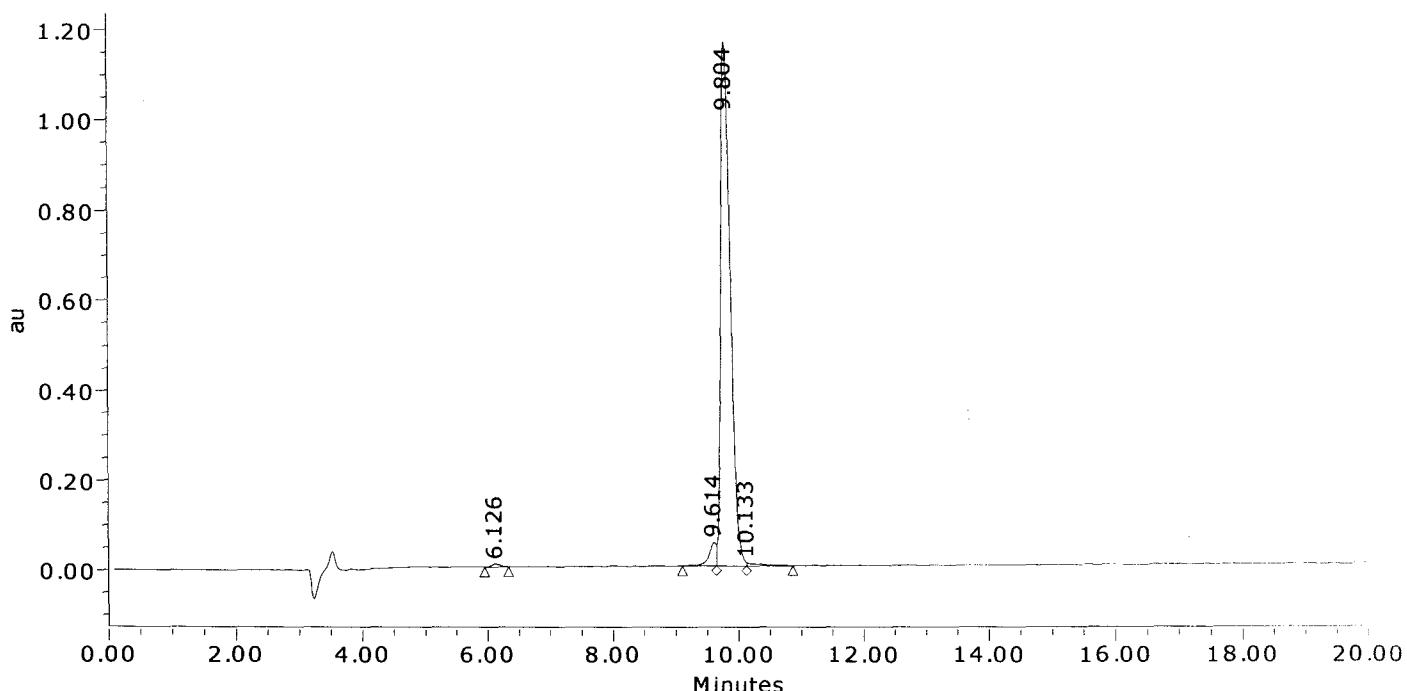
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344946/SW05172T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/26/2008 13:05:32 CST
Sample ID:	344946	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344946_A Final_PDA
Date Acquired:	5/23/2008 19:38:59 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.5	6.126	61620	7282
2	3.2	9.614	416106	52262
3	95.6	9.804	12396465	1163439
4	0.7	10.133	95039	7632
<b>Sum</b>	<b>100.00</b>		<b>12969229</b>	<b>1230614.5</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344946

Lot # : SW05172T

Chemist : Yan Li

Date Acquired :

5/23/2008 19:38:59 CST

Expected MS :

MW: 1691.9

Acq. Method Set :

Import

Processing Method :

344946\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

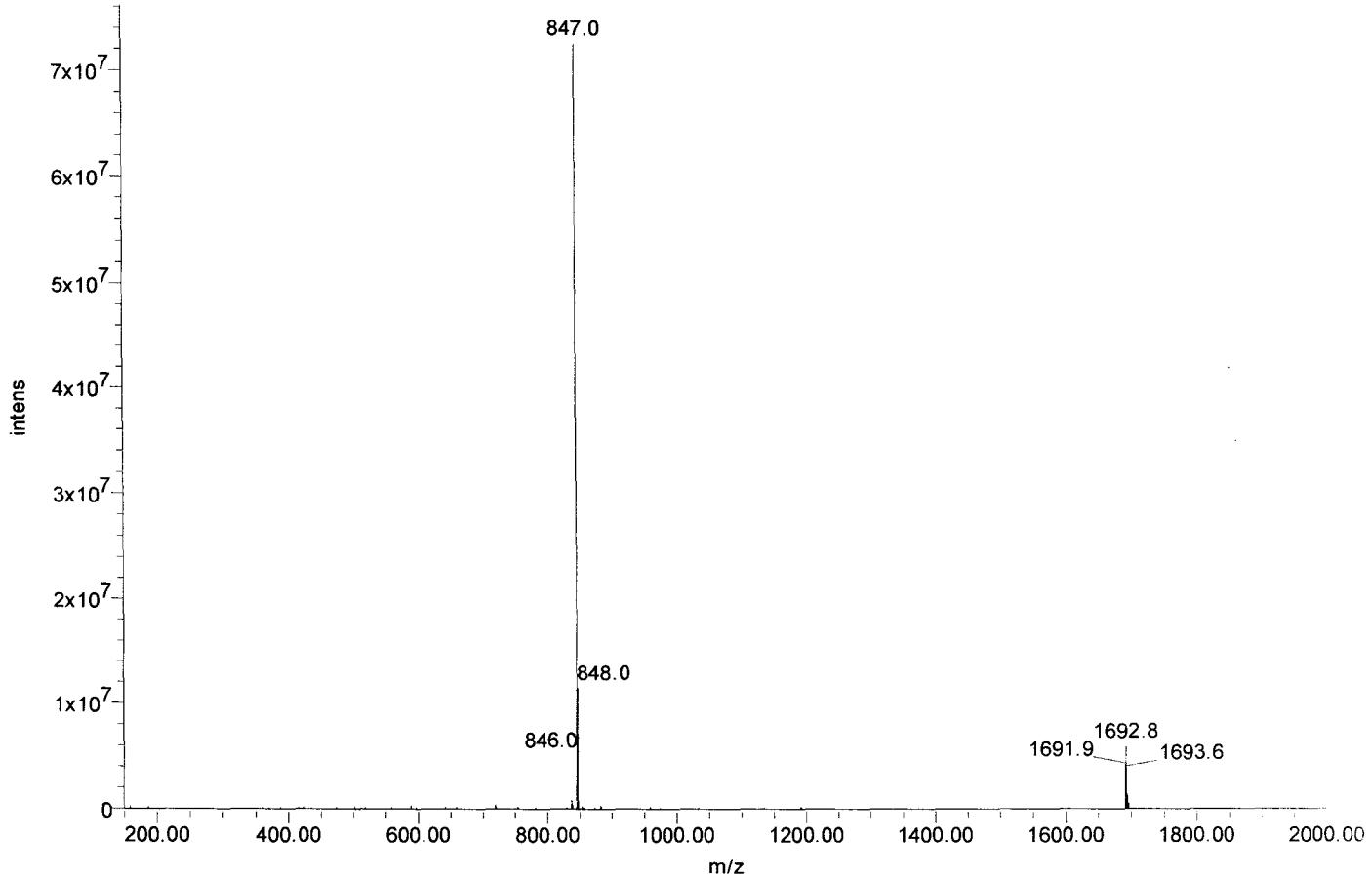
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #207  
LGTWQMDCTHLEGK1  
Cat#5916 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344947                   **Lot #:** SW05164T  
**Sequence:** Leu-Gly-Thr-Trp-Gln-Met-Asp-Cys-Thr-His-Leu-Glu-Gly-Lys-Ile  
**Molecular Weight:** 1732.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 83.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/22/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		His	1.00	1.04		Met	1.00	1.02	
Cys	1.00	0.00	*1	Ile	1.00	0.95		Thr	2.00	1.98	
Glx	2.00	1.91		Leu	2.00	2.08		Trp	1.00	0.00	*1
Gly	2.00	2.07		Lys	1.00	1.00					

\*1 Cys and Trp were completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan2 Li Date: 05/26/08  
Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

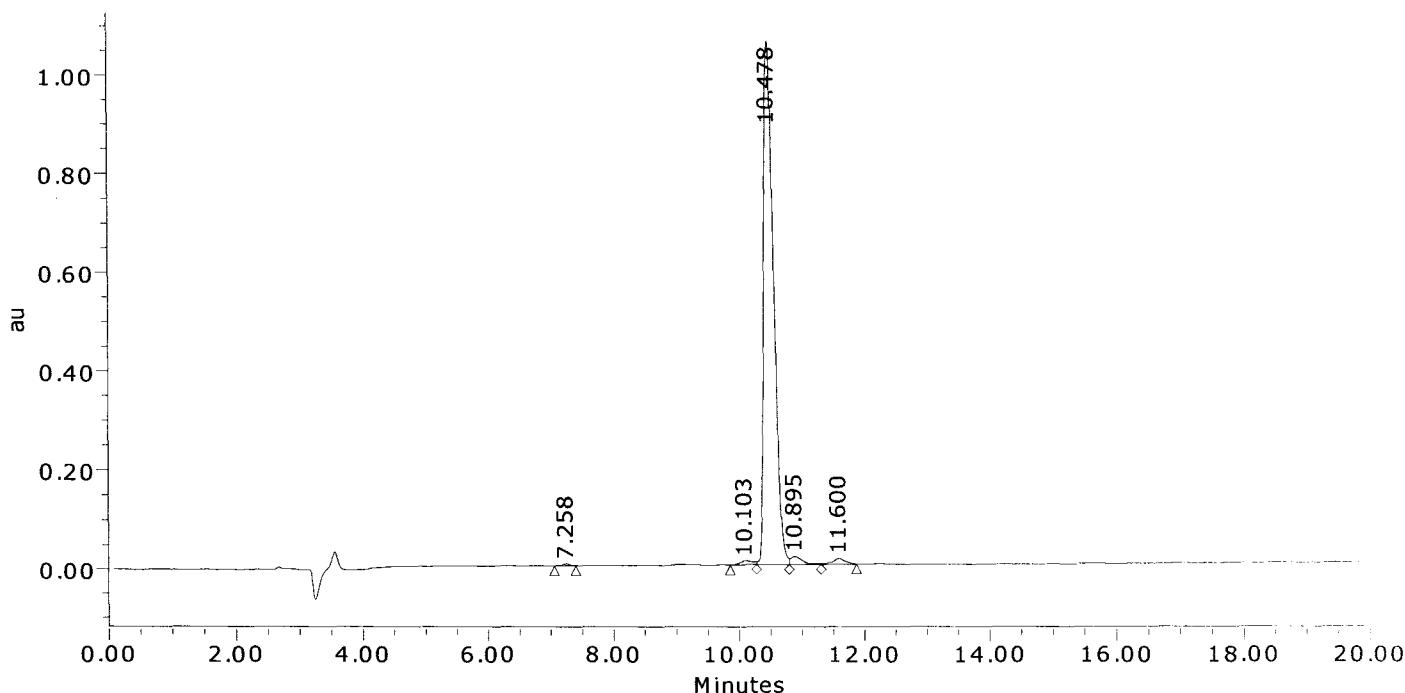
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344947/SW05164T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 9:20:00 CST  
Sample ID: 344947 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344947\_A Final\_PDA  
Date Acquired: 5/22/2008 17:45:21 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	0.3	7.258	32551	3943
2	1.0	10.103	121645	8657
3	95.6	10.478	11642474	1059980
4	1.8	10.895	223219	16421
5	1.3	11.600	157978	11465
<b>Sum</b>	<b>100.00</b>		<b>12177866</b>	<b>1100465.9</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344947**

**Lot # : SW05164T**

**Chemist : Yan Li**

Date Acquired :

5/23/2008 12:26:34 CST

Expected MS :

MW: 1732.0

Acq. Method Set :

Import

Processing Method :

344947\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

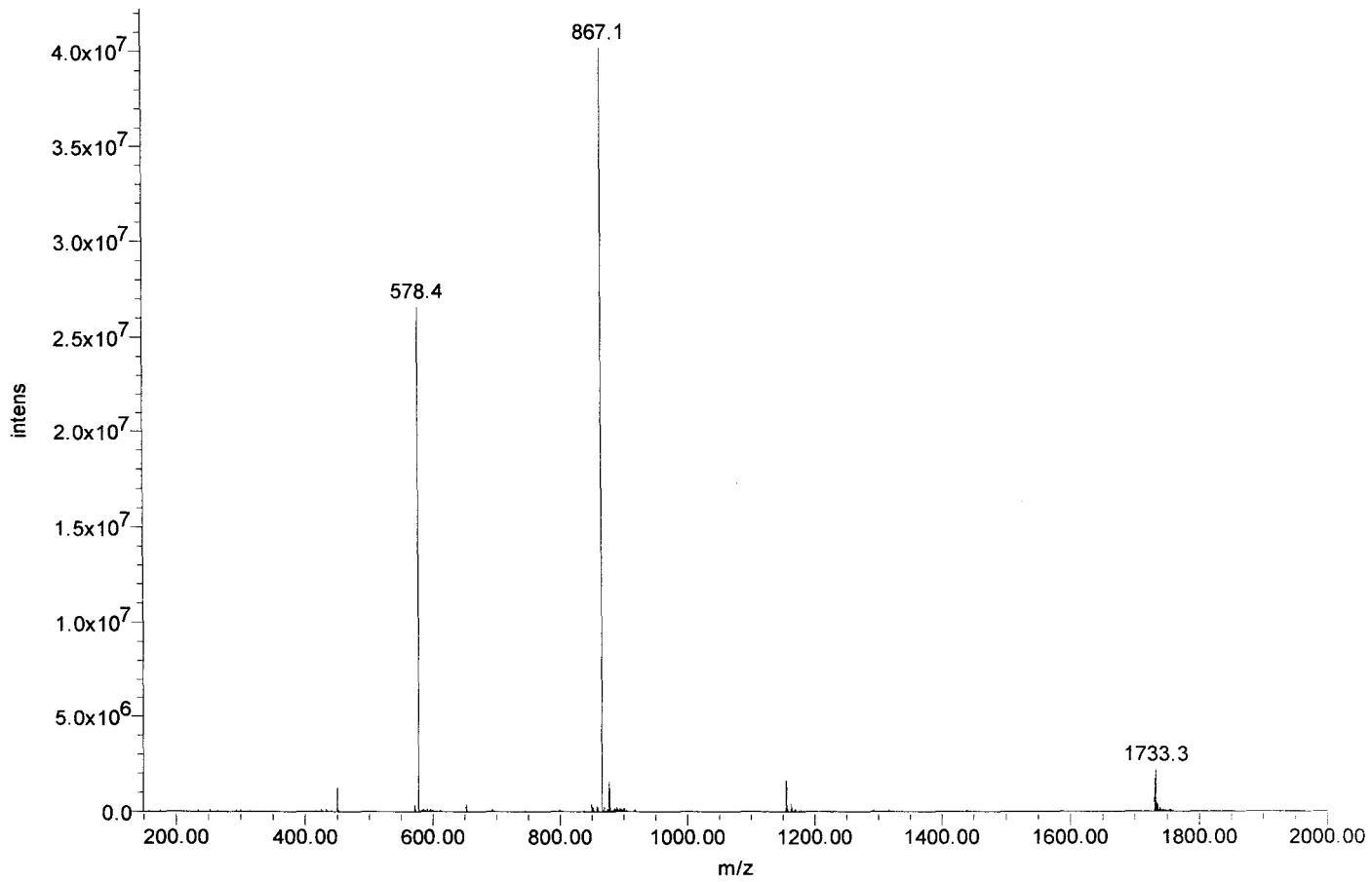
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #208  
QMDCTHLEGKIIIVA  
Cat#5917 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344948                   **Lot #:** SW05249T  
**Sequence:** Gln-Met-Asp-Cys-Thr-His-Leu-Glu-Gly-Lys-Ile-Ile-Val-Ala  
**Molecular Weight:** 1671.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 87.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 75.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	1.00	0.98		Lys	1.00	0.99	
Asx	1.00	0.92		His	1.00	0.96		Met	1.00	0.92	
Cys	1.00	0.00	*1	Ile	3.00	1.98	*2	Thr	1.00	0.95	
Glx	2.00	1.78		Leu	1.00	1.01		Val	1.00	0.92	

\*1 Cys was completely destroyed during hydrolysis.

\*2 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 06/02/08  
Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

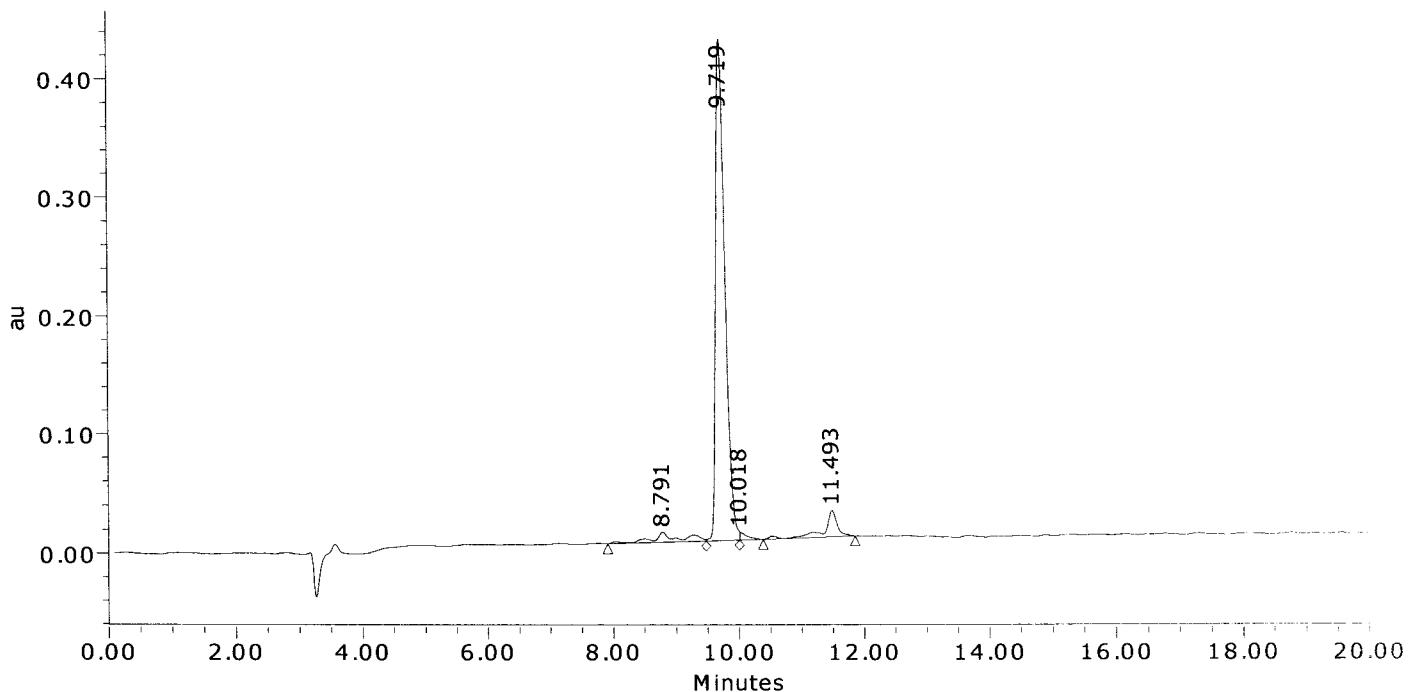
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344948/SW05249T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/29/2008 15:51:33 CST
Sample ID:	344948	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344948_A Final_PDA
Date Acquired:	5/29/2008 13:33:34 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

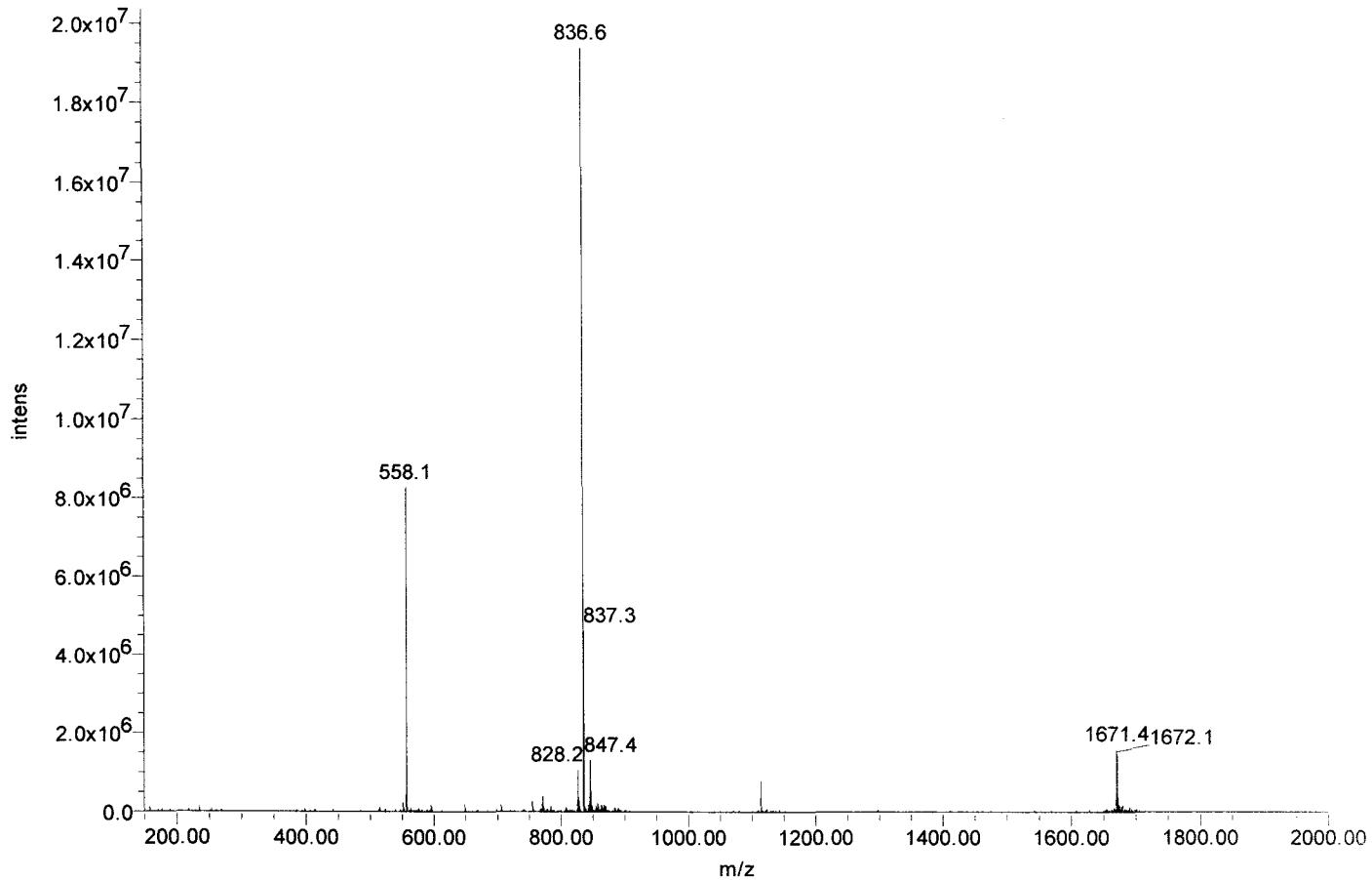


	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	5.1	8.791	253416	8661
2	87.1	9.719	4329772	423073
3	1.1	10.018	56046	7154
4	6.6	11.493	329710	21867
<b>Sum</b>	<b>100.00</b>		<b>4968945</b>	<b>460755.4</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344948      **Lot # :** SW05249T      **Chemist :** Yan Li

Date Acquired : 5/29/2008 14:14:29 CST  
Expected MS : MW: 1671.0  
Acq. Method Set : Import  
Processing Method : 344948\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #209  
THI.FGKIIIVAVHVA  
Cat#5918 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344949      **Lot #:** SW05245T

**Sequence:** Thr - His - Leu - Glu - Gly - Lys - Ile - Ile - Ile - Val - Ala - Val - His - Val - Ala

**Molecular Weight:** 1600.0 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 84.6 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 20% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 86.4 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	2.00	2.16		His	2.00	2.02		Lys	1.00	1.02	
Glx	1.00	1.00		Ile	3.00	2.88		Thr	1.00	0.86	
Gly	1.00	1.05		Leu	1.00	1.02		Val	3.00	3.08	

**Remarks:**

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

Quality Assurance By:

*Shiv'a Patel*

Date: 06/27/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

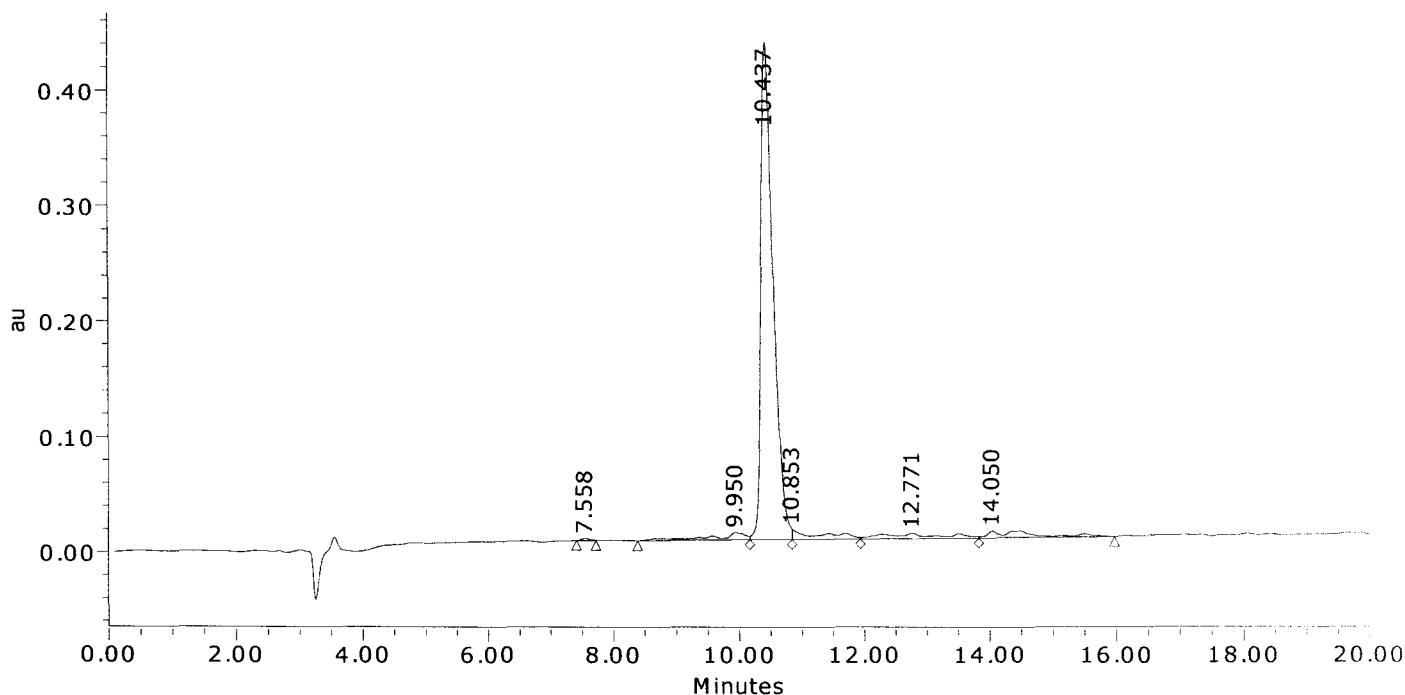
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344949/SW05245T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 15:03:49 CST  
Sample ID: 344949 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344949\_A Final\_PDA  
Date Acquired: 5/29/2008 10:11:19 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.2	7.558	14001	1761
2	3.5	9.950	238737	6387
3	84.6	10.437	5852230	430518
4	3.8	10.853	262981	9327
5	3.9	12.771	271047	4687
6	4.0	14.050	279854	6288
<b>Sum</b>	<b>100.00</b>		<b>6918851</b>	<b>458967.6</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344949

Lot # : SW05245T

Chemist : Yan Li

Date Acquired :

5/29/2008 10:11:19 CST

Expected MS :

MW: 1600.0

Acq. Method Set :

Import

Processing Method :

344949\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

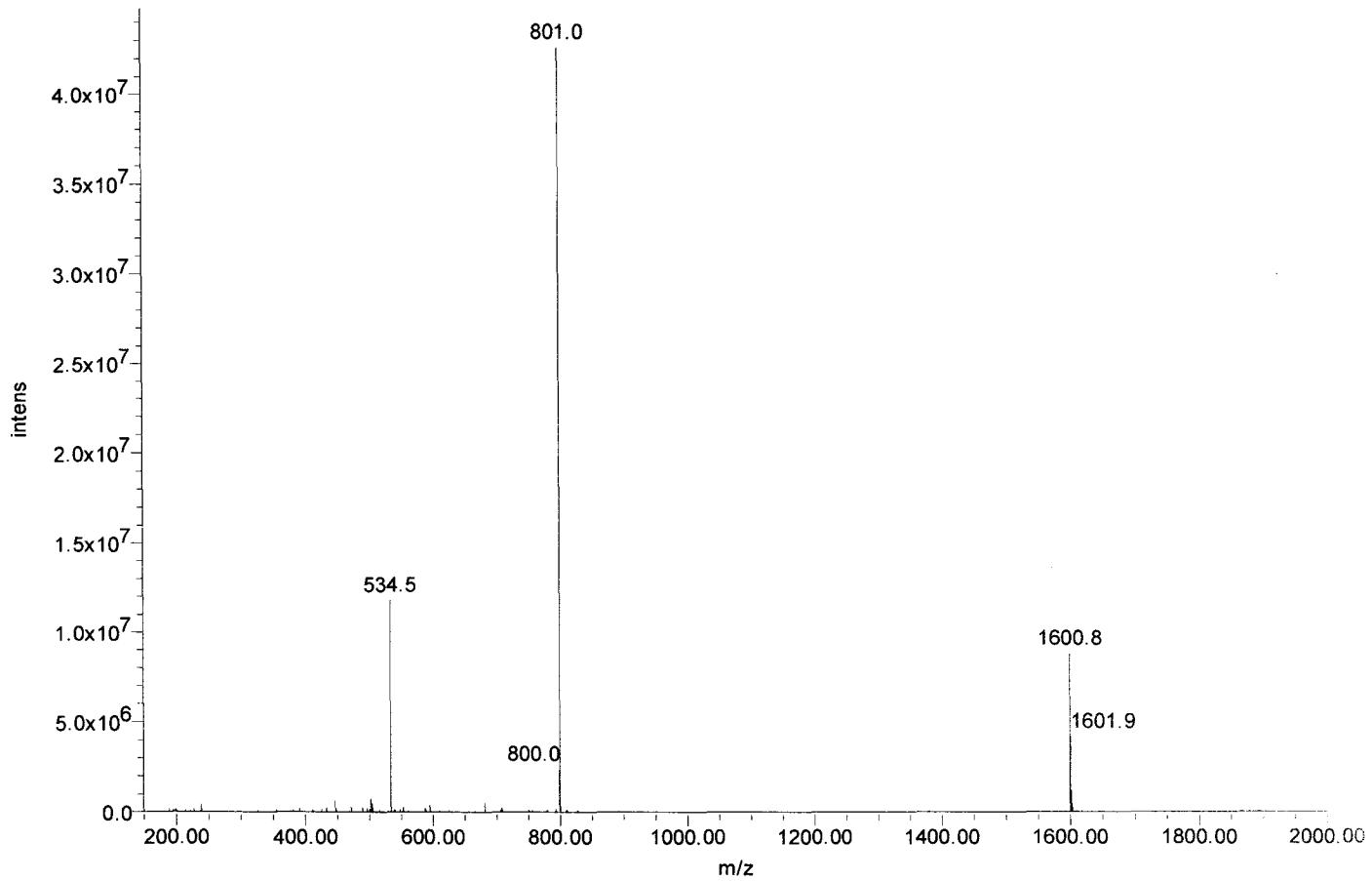
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**Product Name:** Custom Peptide

SIVmac239 Pol #210  
GKIIIVAVIVASGFI  
Cat#5919 Lot#080132  
Net Wt. 1mg

**Product #:** 344950                    **Lot #:** SW05182T

**Sequence:** Gly - Lys - Ile - Ile - Ile - Val - Ala - Val - His - Val - Ala - Ser - Gly - Phe - Ile

**Molecular Weight:** 1523.9 amu

**Mass Spectral Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrum)

**HPLC Analysis:** Peptide Purity: 89.4 %  
(see attached RP-HPLC chromatogram)

**Solubility:** 1 mg/mL in 20% Acetonitrile in H<sub>2</sub>O

**Appearance:** White lyophilized powder

**Peptide Content:** 78.3 %

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/23/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>		<u>Calc.</u>	<u>Found</u>	<u>Remarks</u>
Ala	2.00	2.00		Ile	4.00	3.61		Ser	1.00	0.87	
Gly	2.00	2.00		Lys	1.00	0.97		Val	3.00	2.87	
His	1.00	0.98		Phe	1.00	0.96					

**Remarks:**

Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20C) Immediately Upon Arrival. Please follow recommended solubility information provided above; no guarantee per other methods.

Quality Assurance By:

*Shweta Patel*

Date: 06/27/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

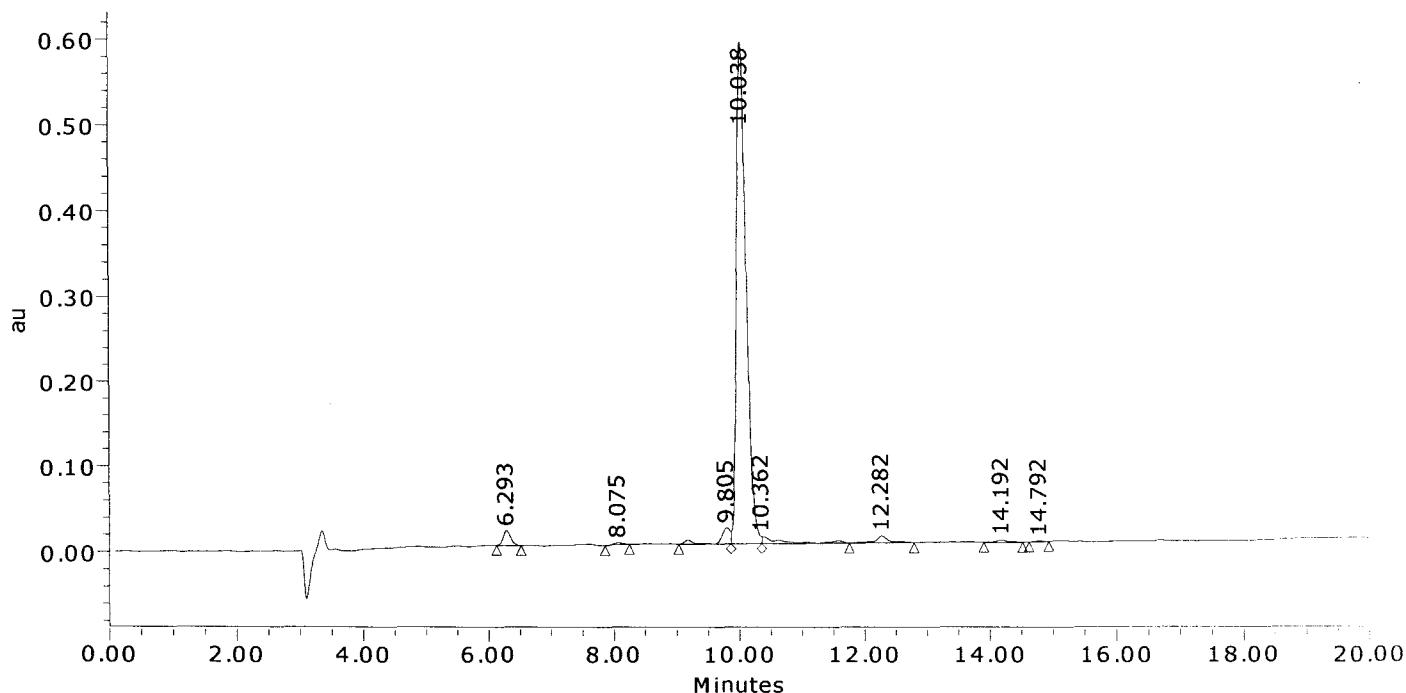
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344950/SW05182T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 11:29:19 CST  
Sample ID: 344950 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344950\_A Final\_PDA  
Date Acquired: 5/23/2008 15:38:47 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

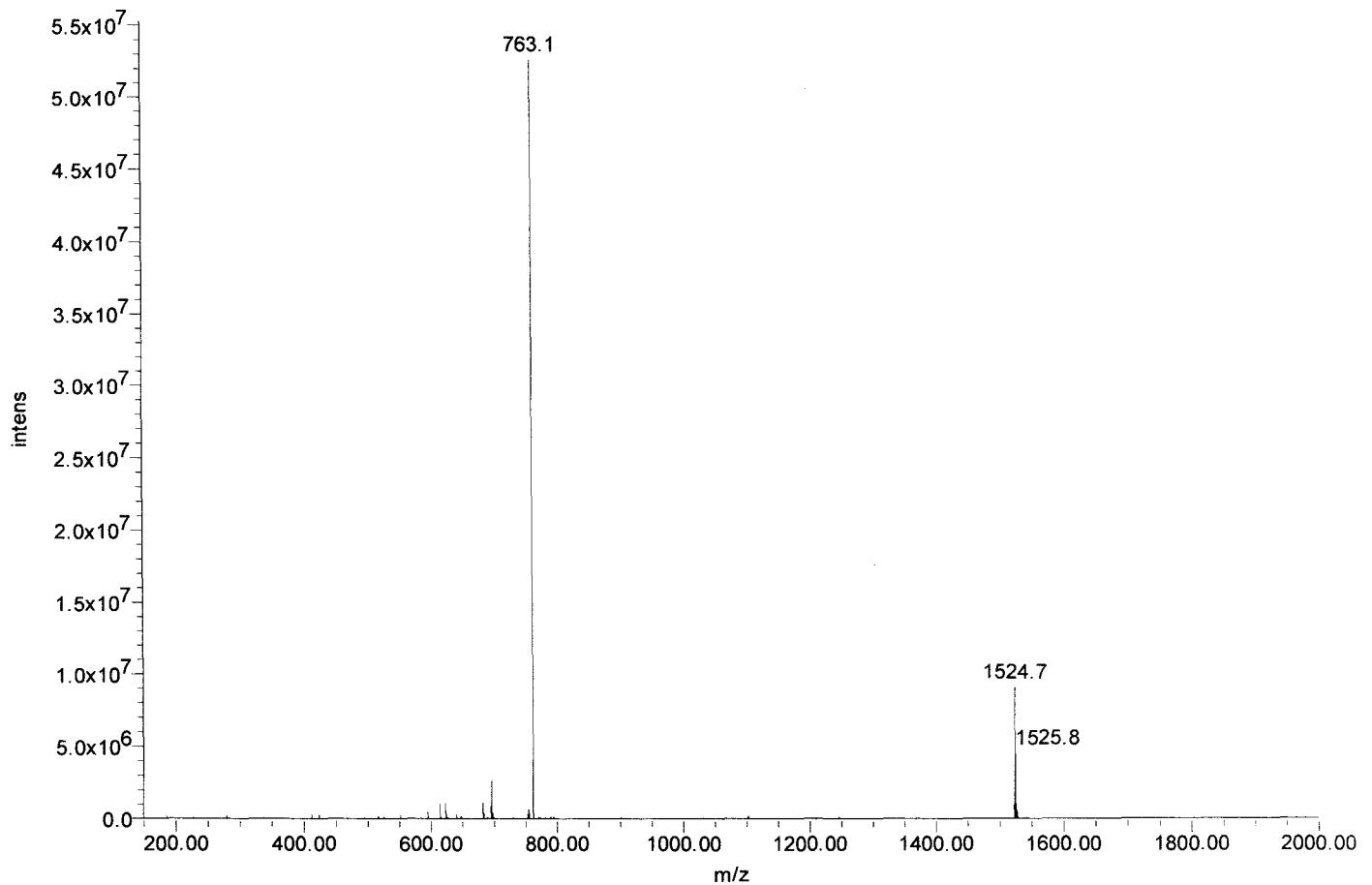


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.1	6.293	145314	17197
2	0.3	8.075	22739	2195
3	3.2	9.805	223671	18804
4	89.4	10.038	6322830	588253
5	2.7	10.362	190166	8194
6	1.7	12.282	123379	8199
7	0.5	14.192	34693	2728
8	0.2	14.792	11214	1285
Sum	100.00		7074006	646855.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344950      **Lot # :** SW05182T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 15:38:47 CST  
Expected MS : MW: 1523.9  
Acq. Method Set : Import  
Processing Method : 344950\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #211  
IVAVHVASGFIEAEV  
Cat#5920 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344951                   **Lot #:** SW06016T  
**Sequence:** Ile-Val-Ala-Val-His-Val-Ala-Ser-Gly-Phe-Ile-Glu-Ala-Glu-Val  
**Molecular Weight:** 1540.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 69.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/04/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	3.00		His	1.00	0.89		Ser	1.00	0.86	
Glx	2.00	2.19		Ile	2.00	1.58	*1	Val	4.00	3.31	*1
Gly	1.00	0.98		Phe	1.00	0.97					

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 06/05/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

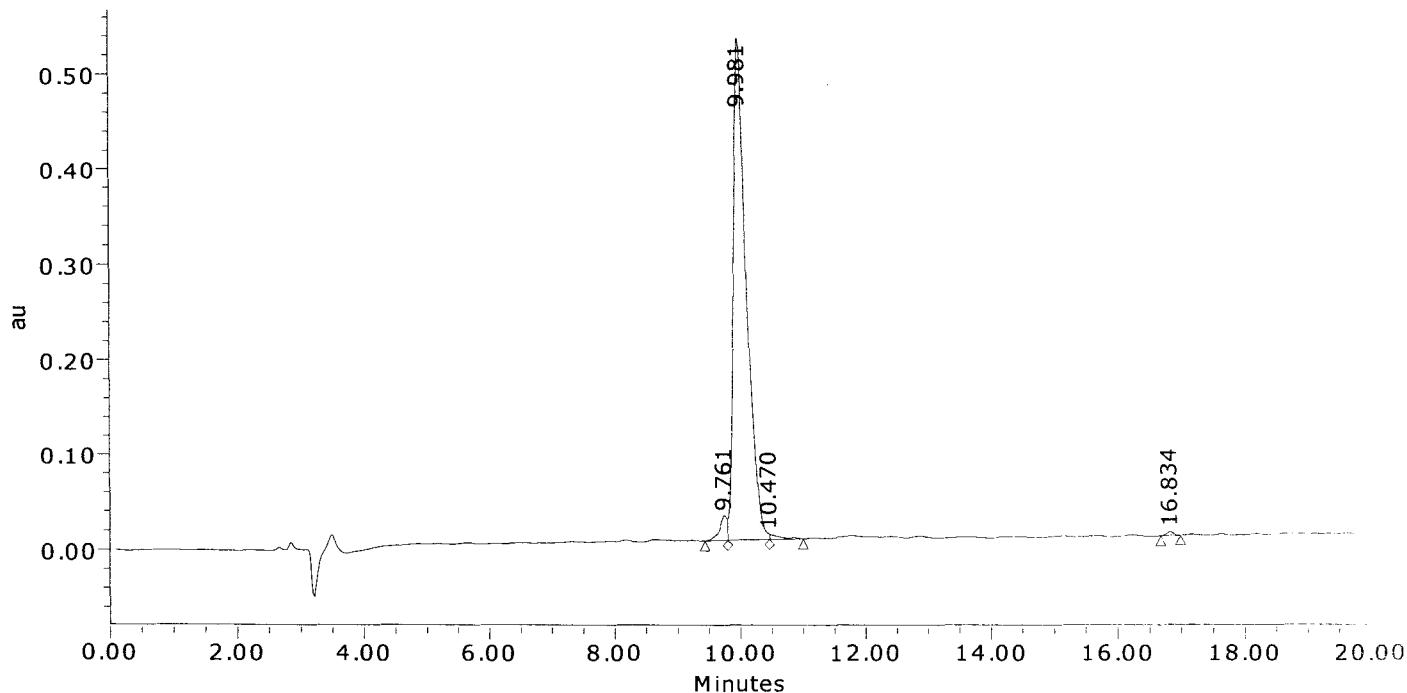
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344951/SW06016T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/5/2008 9:32:11 CST  
Sample ID: 344951 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344951\_A Final\_PDA  
Date Acquired: 6/4/2008 21:00:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	2.9	9.761	223379	25873
2	95.9	9.981	7509494	527338
3	0.9	10.470	70253	5526
4	0.4	16.834	31182	3903
<b>Sum</b>	<b>100.00</b>		<b>7834308</b>	<b>562640.4</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344951**

**Lot # : SW06016T**

**Chemist : Yan Li**

Date Acquired :

6/5/2008 10:57:41 CST

Expected MS :

MW: 1540.8

Acq. Method Set :

Import

Processing Method :

344951\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

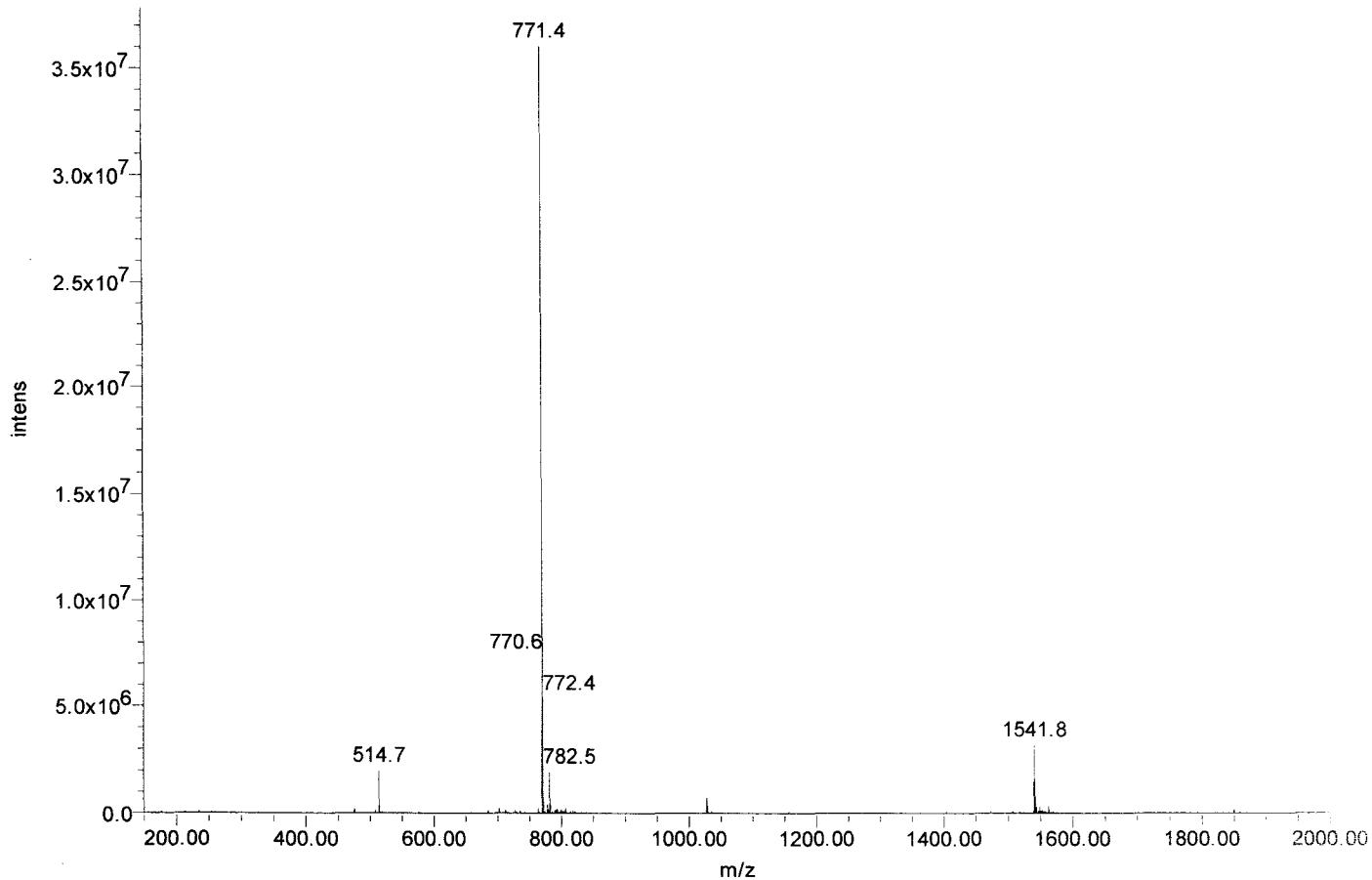
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #212  
HVASGFIAEVIPQE  
Cat#5921 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344952                   **Lot #:** SW05258T  
**Sequence:** His-Val-Ala-Ser-Gly-Phe-Ile-Glu-Ala-Glu-Val-Ile-Pro-Gln-Glu  
**Molecular Weight:** 1625.8 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 98.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/30/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.07		His	1.00	0.97		Pro	1.00	0.85	
Glx	4.00	4.46		Ile	2.00	1.71		Ser	1.00	0.86	
Gly	1.00	1.00		Phe	1.00	1.00		Val	2.00	1.71	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink that reads 'Yan Li'.

Date: 06/05/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
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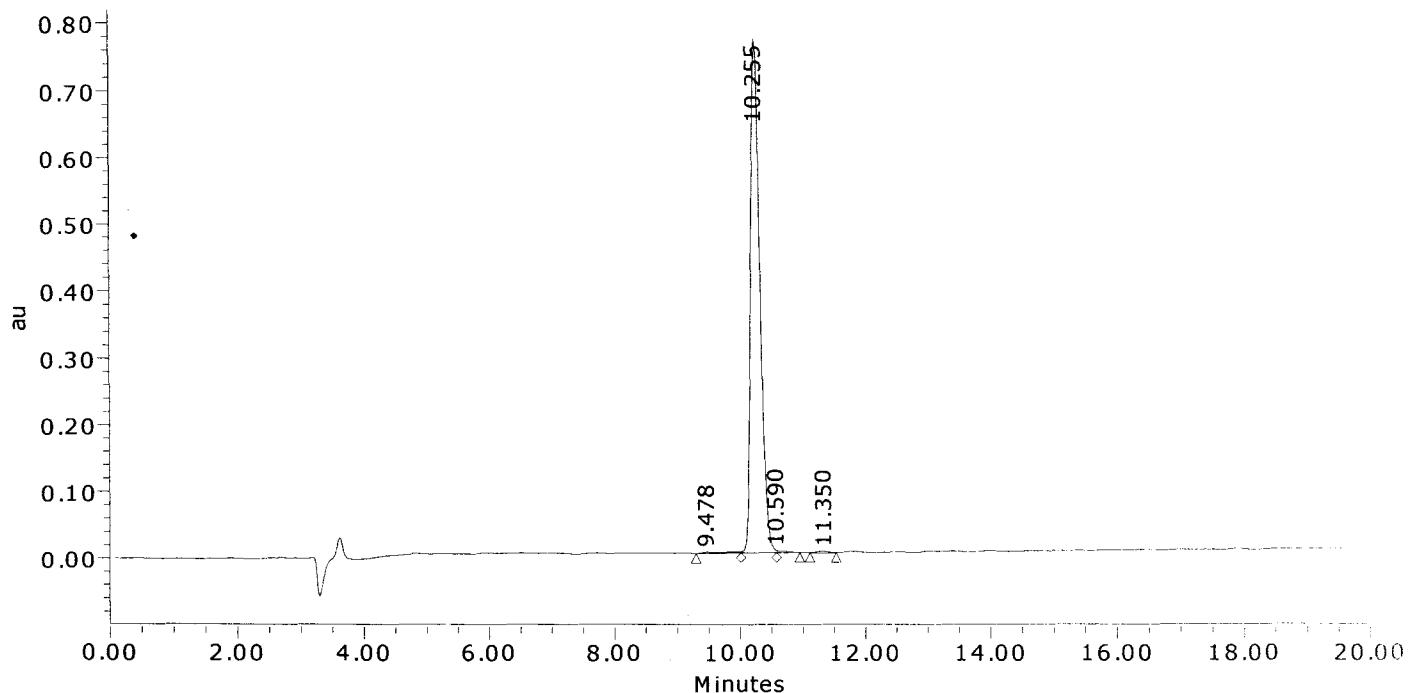
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344952/SW05258T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/30/2008 13:09:27 CST
Sample ID:	344952	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344952_A Final_PDA
Date Acquired:	5/30/2008 12:10:14 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

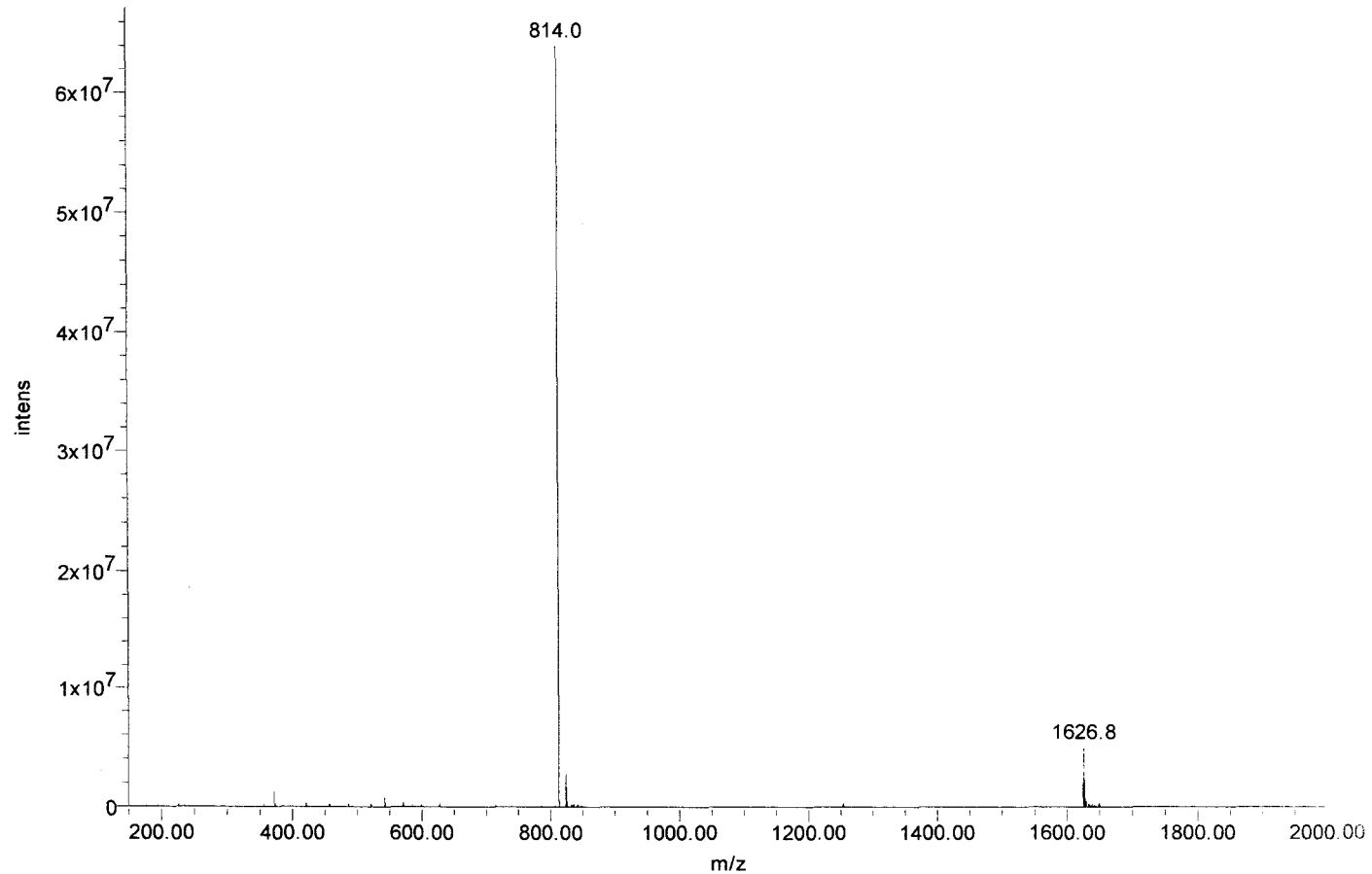


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.7	9.478	52679	2030
2	98.6	10.255	7949403	768614
3	0.4	10.590	34143	3384
4	0.3	11.350	24332	1841
Sum	100.00		8060558	775870.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344952      **Lot # :** SW05258T      **Chemist :** Yan Li

Date Acquired : 5/30/2008 13:35:36 CST  
Expected MS : MW: 1625.8  
Acq. Method Set : Import  
Processing Method : 344952\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #213  
GFIEAEVIPQETGRQ  
Cat#5922 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344953                   **Lot #:** SW05170T  
**Sequence:** Gly-Phe-Ile-Glu-Ala-Glu-Val-Ile-Pro-Gln-Glu-Thr-Gly-Arg-Gln  
**Molecular Weight:** 1673.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 88.0%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/23/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.06		Gly	2.00	2.00		Pro	1.00	0.93	
Arg	1.00	1.01		Ile	2.00	1.73		Thr	1.00	1.02	
Glx	5.00	5.62		Phe	1.00	1.00		Val	1.00	0.83	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/29/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

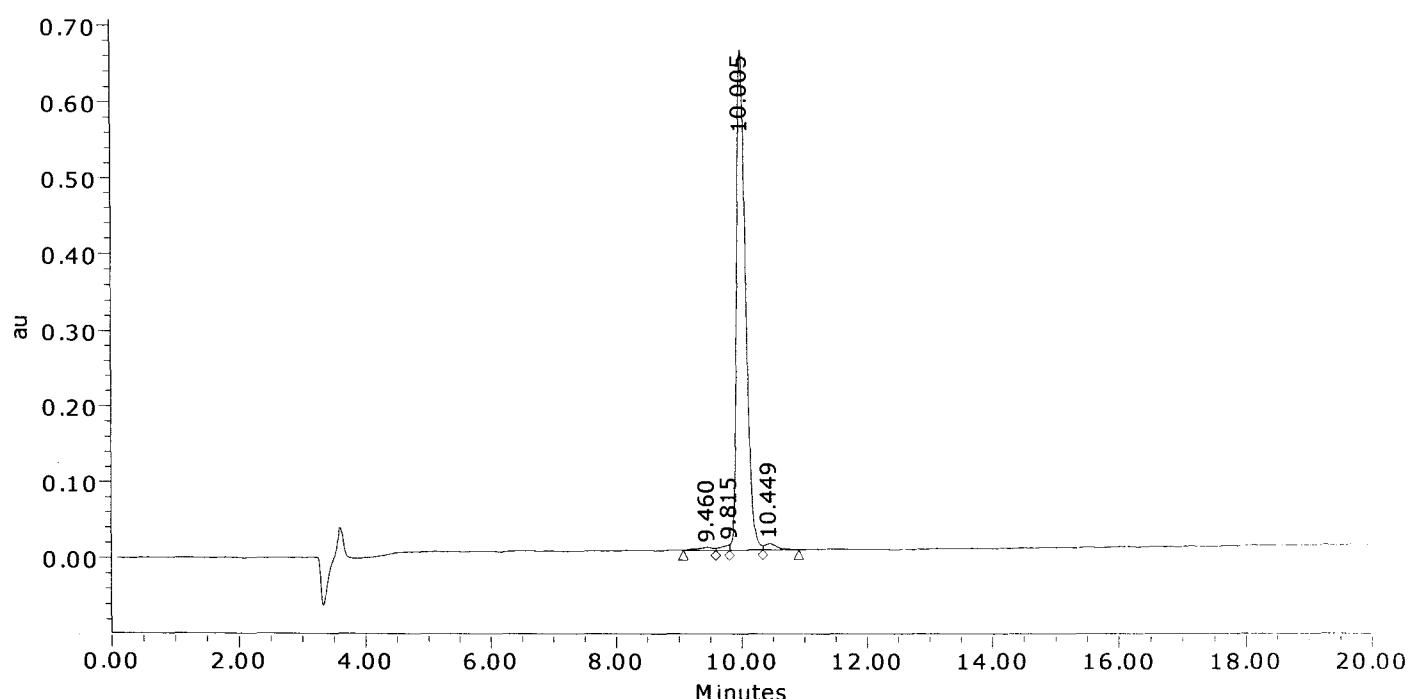
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344953/SW05170T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 13:38:57 CST  
Sample ID: 344953 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344953\_A Final\_PDA  
Date Acquired: 5/23/2008 22:15:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.9	9.460	59858	3492
2	0.9	9.815	60181	7463
3	96.6	10.005	6562147	658718
4	1.7	10.449	113571	7921
Sum	100.00		6795757	677594.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344953

Lot # : SW05170T

Chemist : Yan Li

Date Acquired :

5/23/2008 22:15:26 CST

Expected MS :

MW: 1673.9

Acq. Method Set :

Import

Processing Method :

344953\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

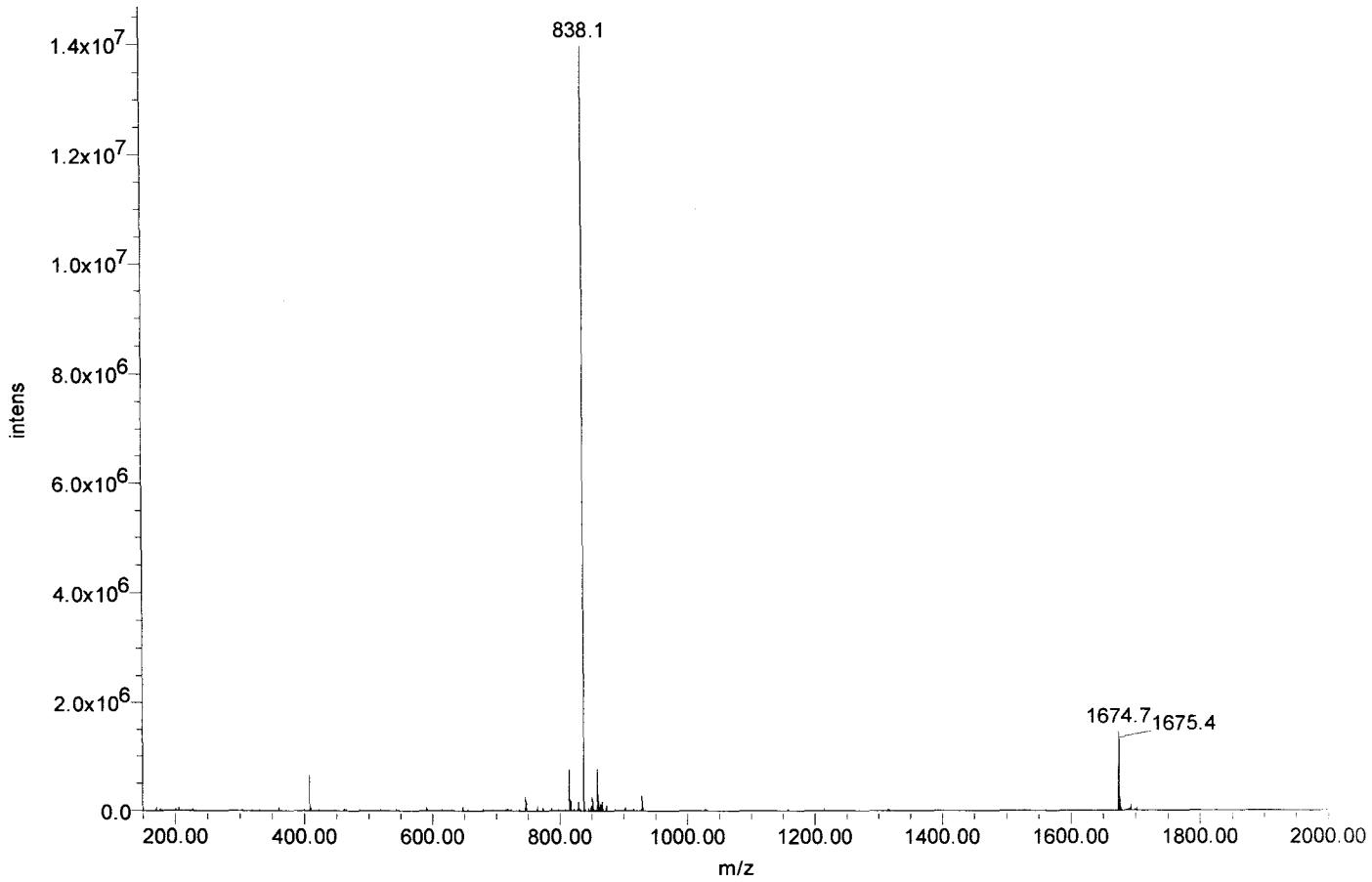
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #214  
AEVIPQETGRQTAFLF  
Cat#5923 Lot#080132  
Net Wt. 1mg

**Product Name:**

Custom Peptide

**Product #:**

344954

**Lot #:** SW05179T

**Sequence:**

Ala-Glu-Val-Ile-Pro-Gln-Glu-Thr-Gly-Arg-Gln-Thr-Ala-Leu-Phe

**Molecular Weight:**

1659.9 amu

**Mass Spectra Analysis:**

Electrospray " Exhibits correct MW "

(see attached MS spectrogram)

**HPLC Analysis:**

Peptide Purity: 94.1%

(see attached HPLC chromatogram)

**Solubility:**

1.0 mg/mL in 10% Acetonitrile in water

**Appearance:**

White lyophilized powder

**Peptide Content:**

78.8%

**Counter Ion:**

Trifluoroacetate

**Date of Mfg:**

05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		Ile	1.00	0.68	*1	Pro	1.00	0.89	
Arg	1.00	0.99		Leu	1.00	1.04		Thr	2.00	2.02	
Glx	4.00	4.41		Phe	1.00	1.01		Val	1.00	0.74	*1
Gly	1.00	0.99									

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yon L Li Date: 05/28/08

Quality Control Department

AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

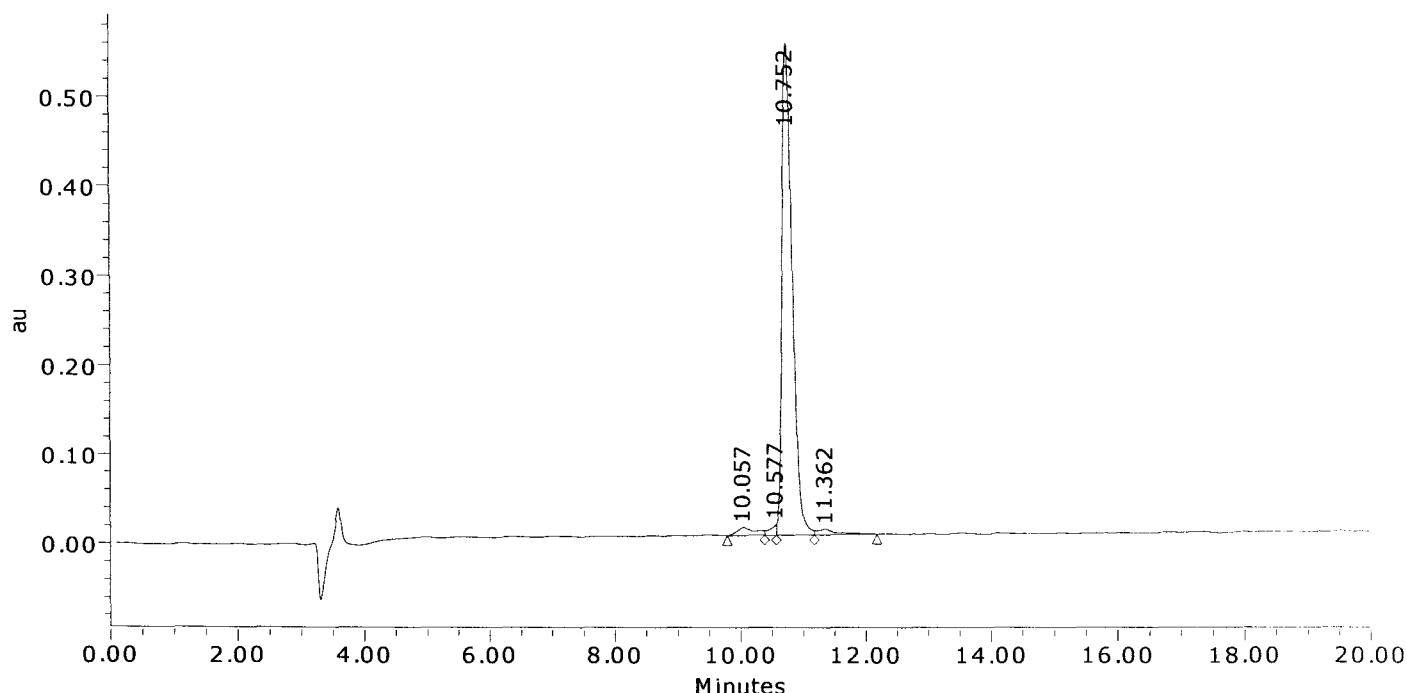
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344954/SW05179T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 13:31:59 CST  
Sample ID: 344954 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344954\_A Final\_PDA  
Date Acquired: 5/23/2008 21:35:51 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	2.7	10.057	177910	9160
2	1.2	10.577	80300	12005
3	94.1	10.752	6260338	549891
4	2.0	11.362	133158	6459
<b>Sum</b>	<b>100.00</b>		<b>6651706</b>	<b>577514.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344954

Lot # : SW05179T

Chemist : Yan Li

Date Acquired :

5/23/2008 21:35:51 CST

Expected MS :

MW: 1659.9

Acq. Method Set :

Import

Processing Method :

344954\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

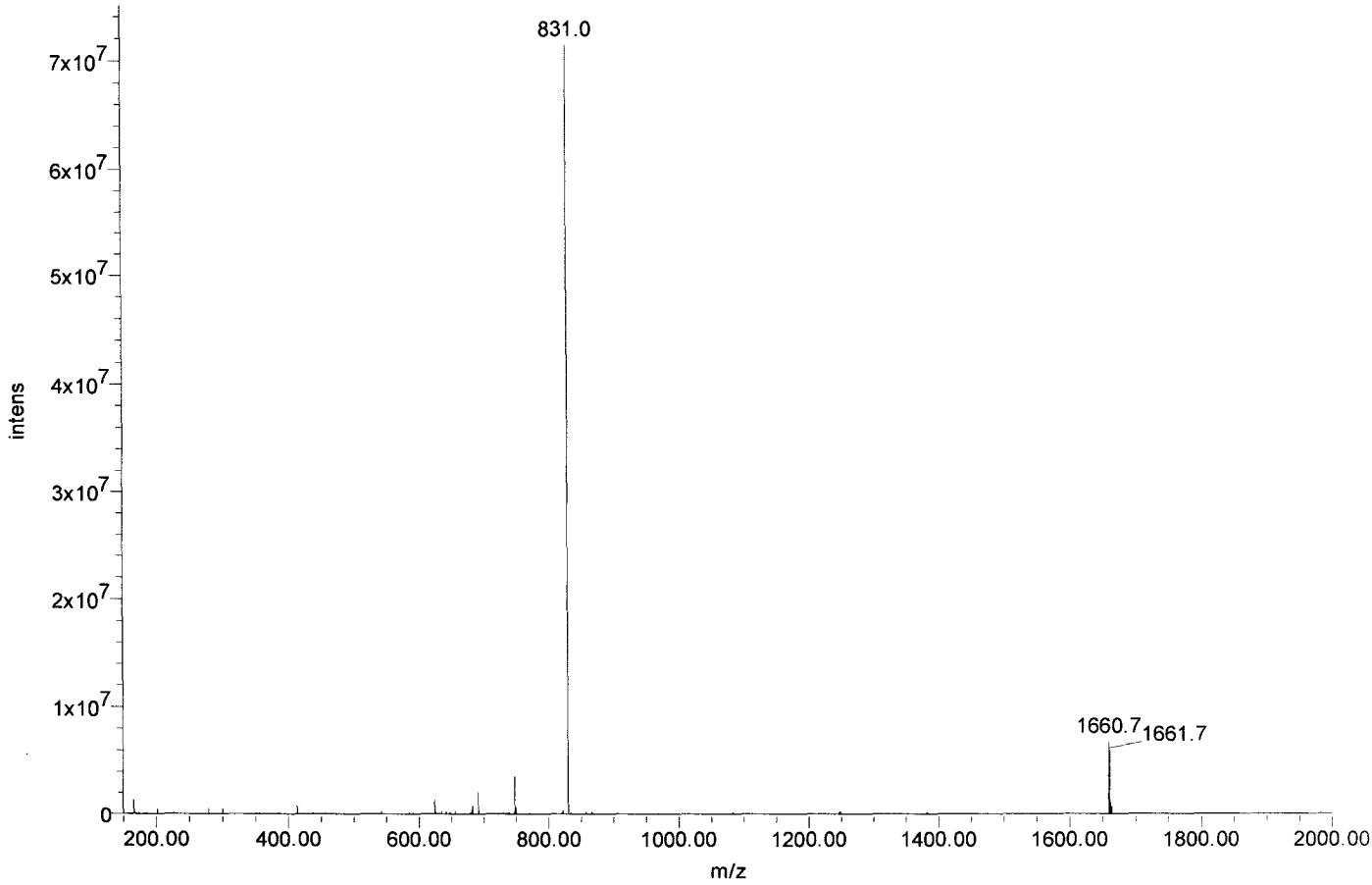
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #215  
POETGRQTAFLLLKL  
Cat#5924 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344955                   **Lot #:** SW05188T  
**Sequence:** Pro-Gln-Glu-Thr-Gly-Arg-Gln-Thr-Ala-Leu-Phe-Leu-Leu-Lys-Leu  
**Molecular Weight:** 1715.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 81.9%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Gly	1.00	1.00		Phe	1.00	1.00	
Arg	1.00	1.00		Leu	4.00	4.10		Pro	1.00	0.85	
Glx	3.00	3.31		Lys	1.00	0.99		Thr	2.00	2.02	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/28/08  
Quality Control Department

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Headquarters  
777 E. Evelyn Avenue  
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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

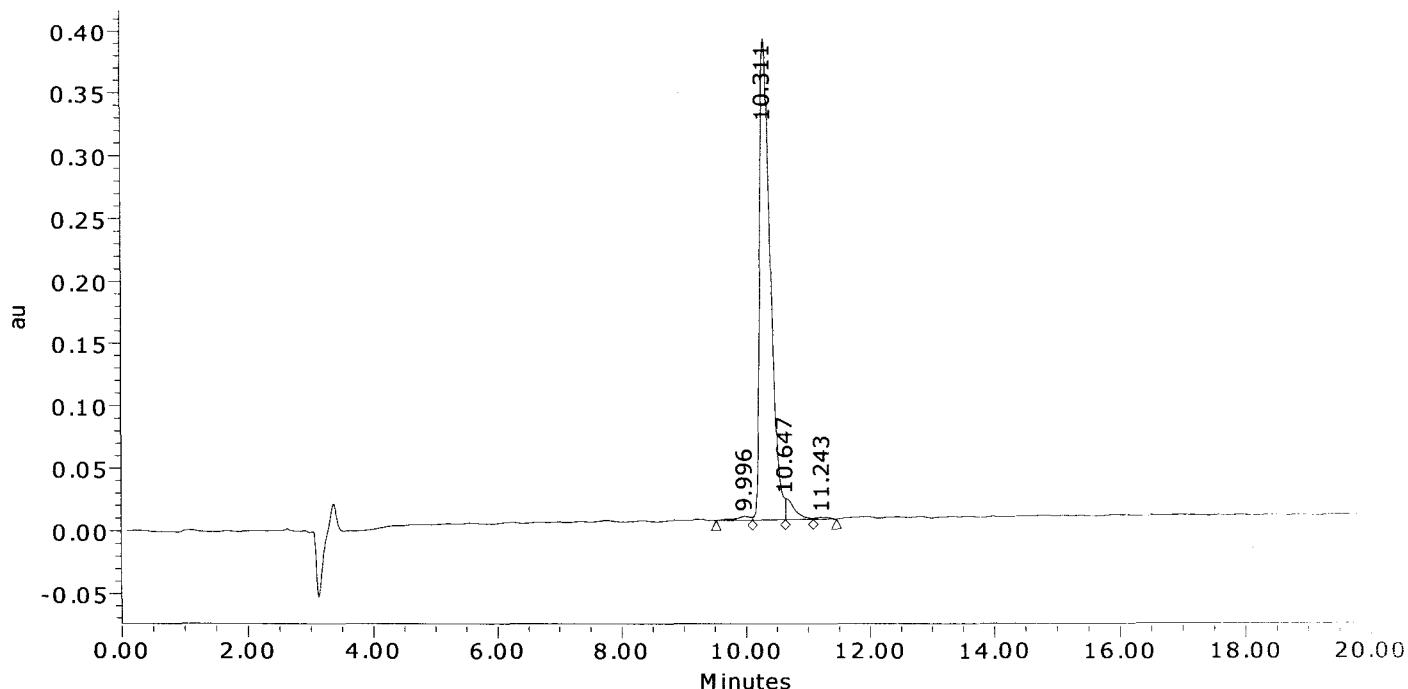
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344955/SW05188T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/27/2008 9:59:33 CST
Sample ID:	344955	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344955_A Final_PDA
Date Acquired:	5/26/2008 10:05:51 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 29% -49% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (µV)</b>
1	1.0	9.996	50394	3011
2	94.9	10.311	4607714	384933
3	3.6	10.647	175371	16801
4	0.5	11.243	23985	1569
<b>Sum</b>	<b>100.00</b>		<b>4857464</b>	<b>406313.7</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344955

Lot # : SW05188T

Chemist : Yan Li

Date Acquired :

5/26/2008 10:05:51 CST

Expected MS :

MW: 1715.0

Acq. Method Set :

Import

Processing Method :

344955\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

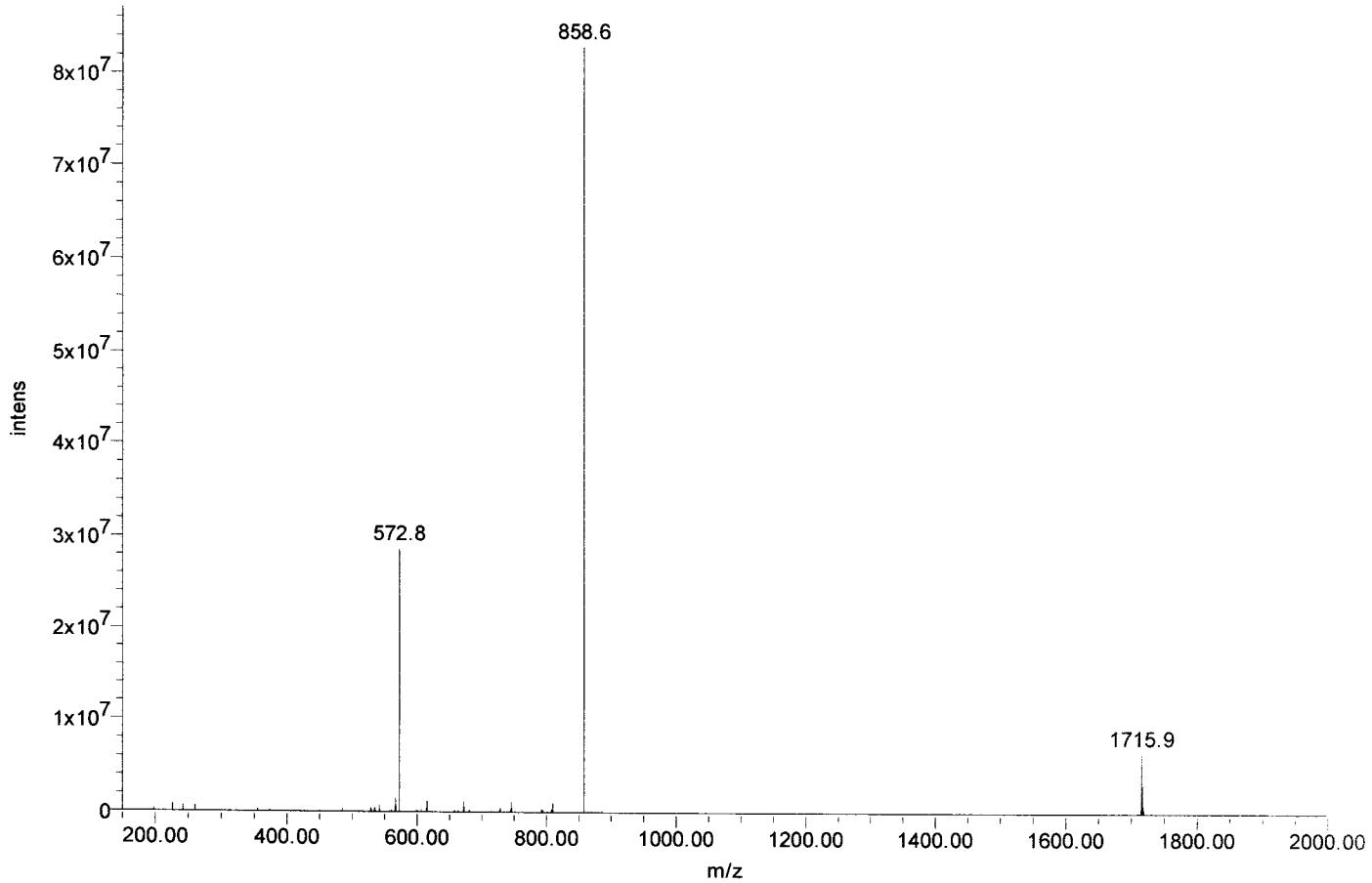
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #216  
GRQTALFLLKLAGRW  
Cat#5925 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344956                   **Lot #:** SW05242T  
**Sequence:** Gly-Arg-Gln-Thr-Ala-Leu-Phe-Leu-Leu-Lys-Leu-Ala-Gly-Arg-Trp  
**Molecular Weight:** 1730.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 86.3%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** Off White lyophilized powder  
**Peptide Content:** 76.3%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/29/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.03		Gly	2.00	1.94		Phe	1.00	0.99	
Arg	2.00	2.00		Leu	4.00	4.06		Thr	1.00	0.95	
Glx	1.00	0.93		Lys	1.00	1.03		Trp	1.00	0.00	*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 06/02/08

Quality Control Department

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777 E. Evelyn Avenue  
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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

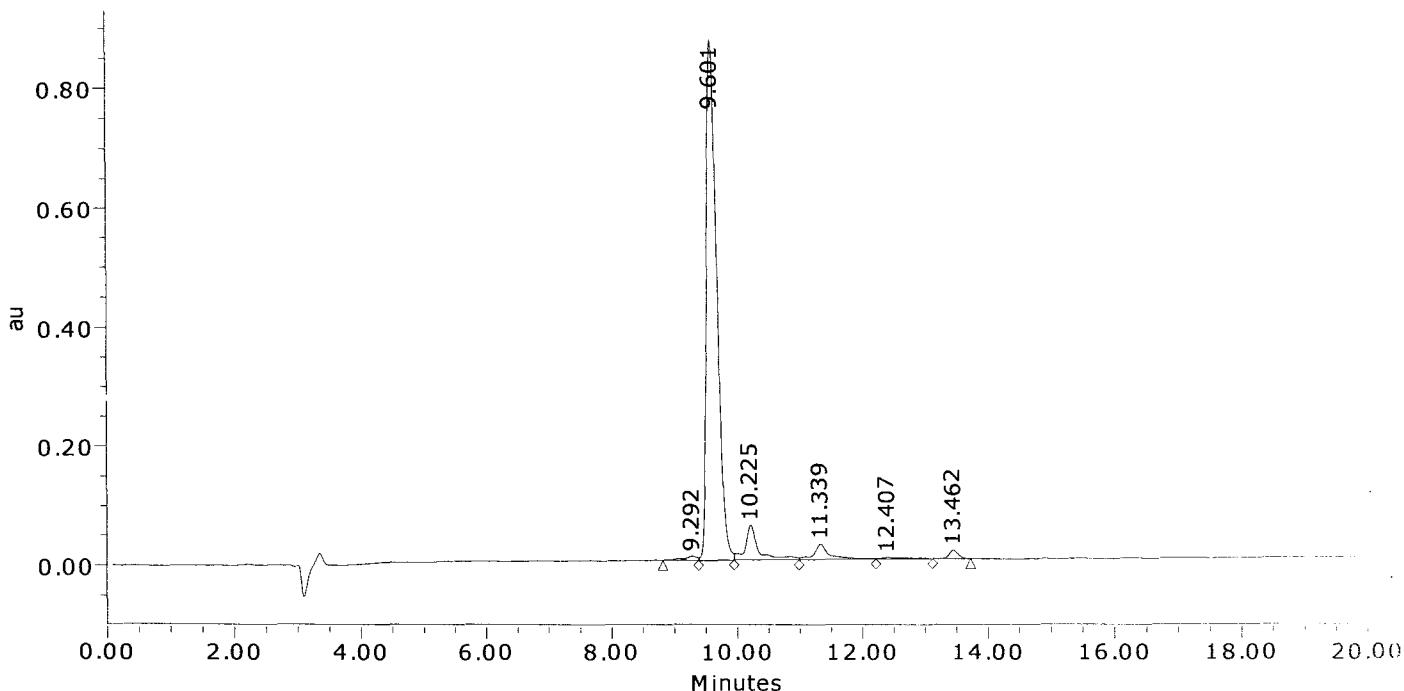
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344956/SW05242T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/29/2008 12:21:49 CST
Sample ID:	344956	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344956_A Final_PDA
Date Acquired:	5/29/2008 9:28:57 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.0	9.292	110465	7071
2	86.3	9.601	10021783	872330
3	7.2	10.225	835239	58084
4	3.7	11.339	435375	25972
5	0.6	12.407	75471	2810
6	1.2	13.462	136192	13760
<b>Sum</b>	<b>100.00</b>		<b>11614524</b>	<b>980026.9</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344956

Lot # : SW05242T

Chemist : Yan Li

Date Acquired :

5/29/2008 9:28:57 CST

Expected MS :

MW: 1730.1

Acq. Method Set :

Import

Processing Method :

344956\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

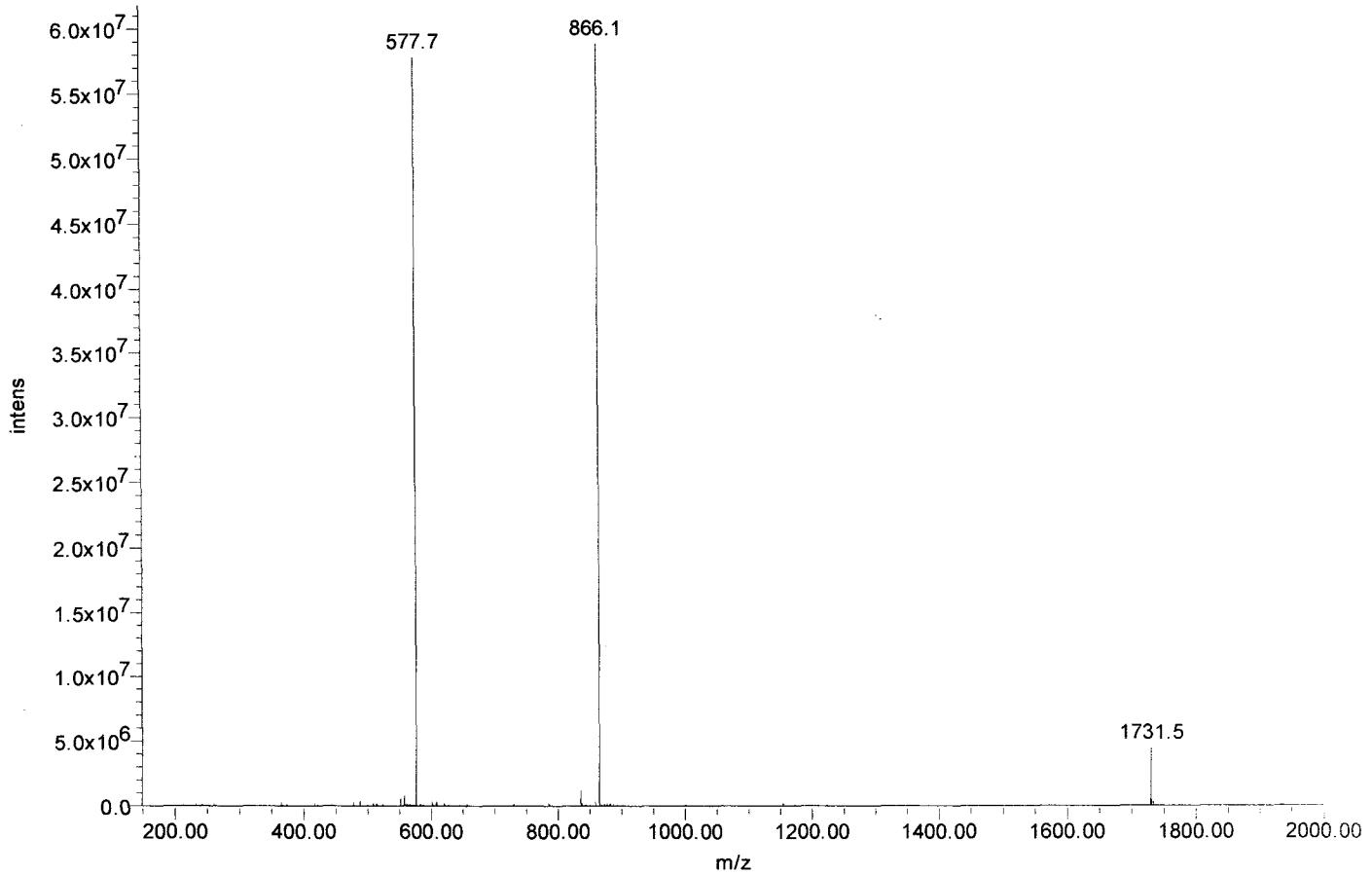
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #217  
ALFLLKLAGRWPIIIH  
Cat#5926 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344957                   **Lot #:** SW05209T  
**Sequence:** Ala-Leu-Phe-Leu-Leu-Lys-Leu-Ala-Gly-Arg-Trp-Pro-Ile-Thr-His  
**Molecular Weight:** 1736.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 79.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00	Ile	1.00	0.95		Pro	1.00	1.07
Arg	1.00	1.01	Leu	4.00	4.05		Thr	1.00	0.99
Gly	1.00	1.00	Lys	1.00	1.01		Trp	1.00	0.00
His	1.00	1.01	Phe	1.00	1.01				*1

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT: Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.**

Quality Assurance By:

A handwritten signature in black ink that reads 'Yanz Li'. Below the signature, the text 'Quality Control Department' is printed.

Date: 05/30/08

## AMERICAN PEPTIDE COMPANY, INC.

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

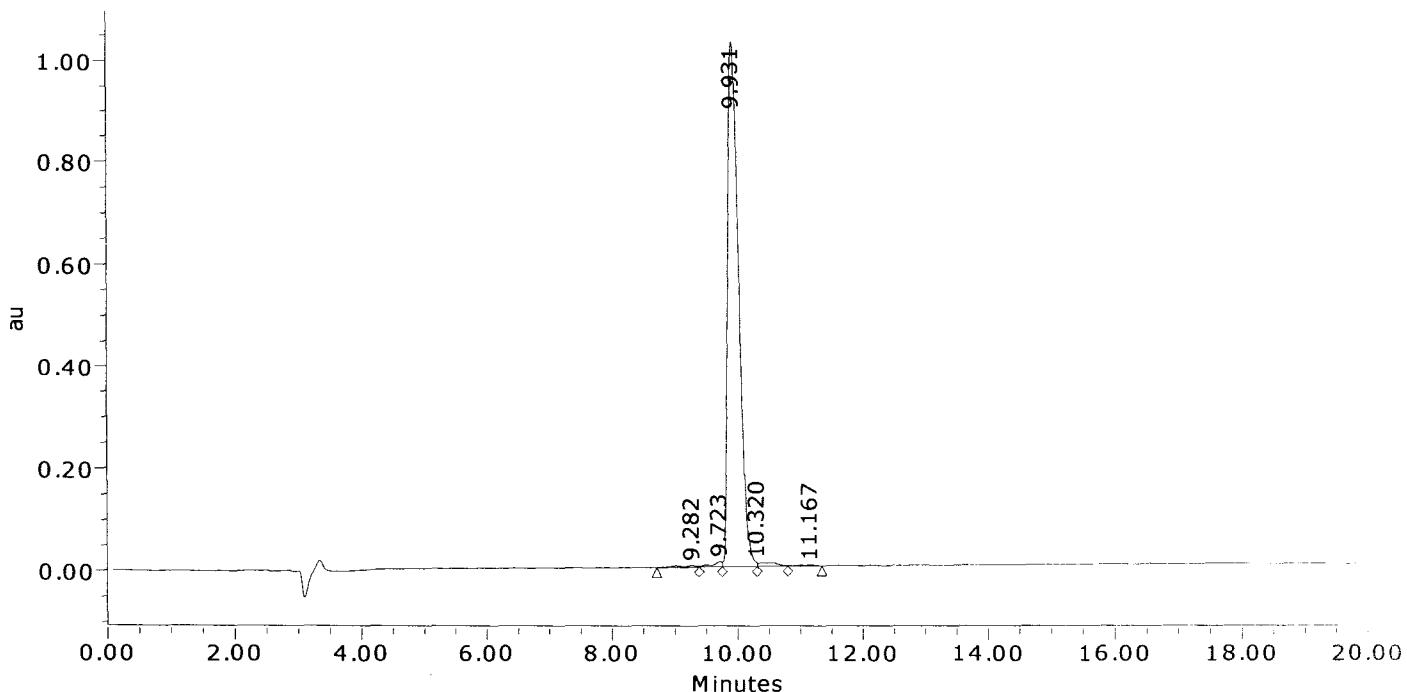
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344957/SW05209T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 13:33:46 CST  
Sample ID: 344957 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344957\_A Final\_PDA  
Date Acquired: 5/27/2008 9:38:29 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	9.282	65820	3489
2	0.8	9.723	100699	9743
3	97.4	9.931	12446894	1030781
4	1.0	10.320	132128	7108
5	0.3	11.167	36121	1962
<b>Sum</b>	<b>100.00</b>		<b>12781663</b>	<b>1053083.7</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344957**

**Lot # : SW05209T**

**Chemist : Yan Li**

Date Acquired :

5/27/2008 9:38:29 CST

Expected MS :

MW: 1736.2

Acq. Method Set :

Import

Processing Method :

344957\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

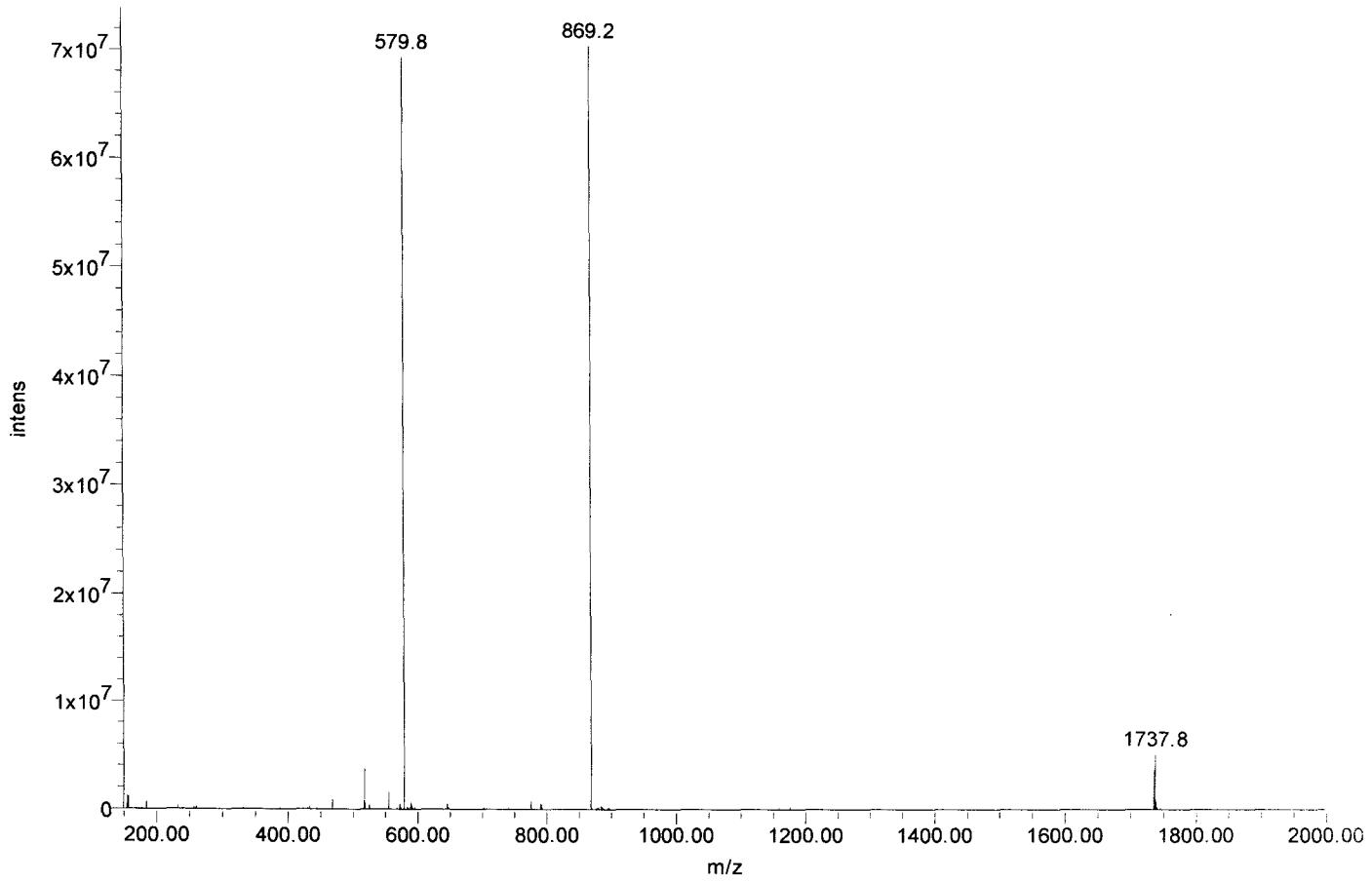
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #218  
LKLAGRWPITHLHTD  
Cat#5927 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344958                   **Lot #:** SW05231T  
**Sequence:** Leu-Lys-Leu-Ala-Gly-Arg-Trp-Pro-Ile-Thr-His-Leu-His-Thr-Asp  
**Molecular Weight:** 1758.1 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 91.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 67.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.95		His	2.00	2.02		Pro	1.00	0.99	
Arg	1.00	1.00		Ile	1.00	0.90		Thr	2.00	1.94	
Asx	1.00	0.95		Leu	3.00	2.91		Trp	1.00	0.00	*1
Gly	1.00	0.97		Lys	1.00	0.94					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/02/08  
Quality Control Department

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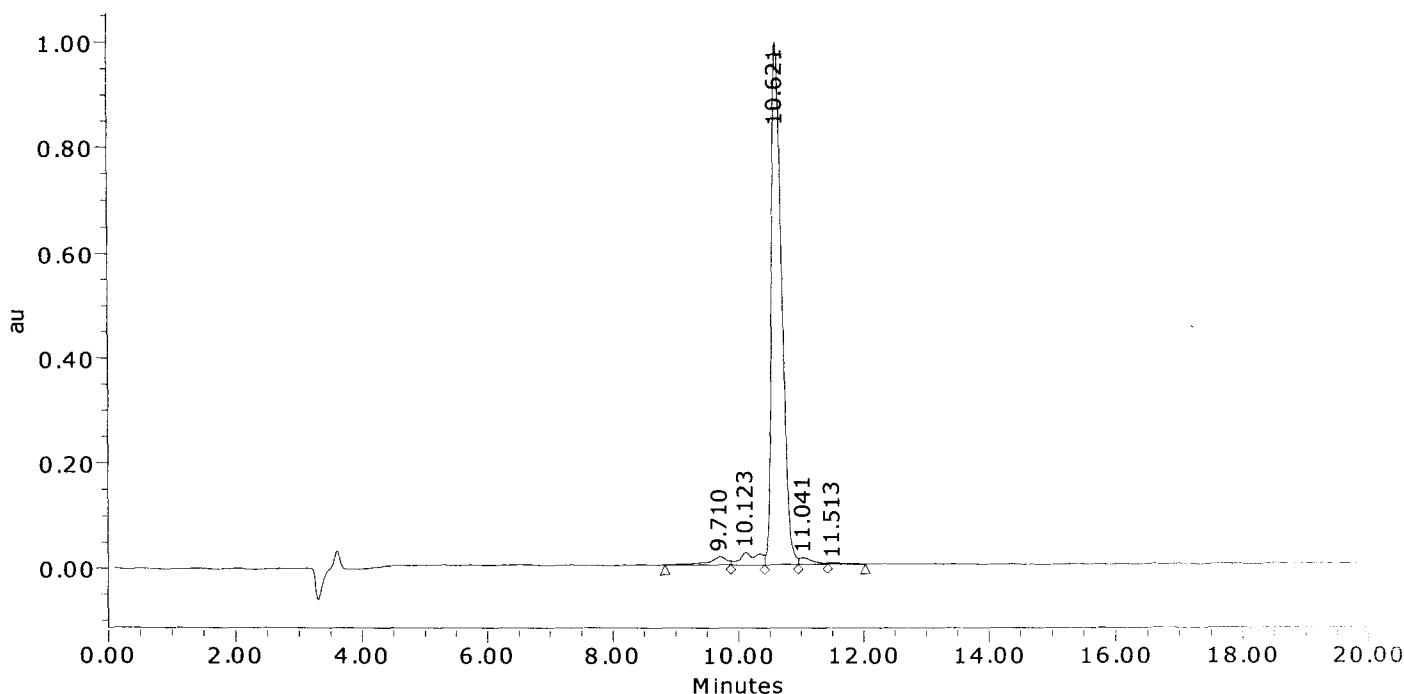
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344958/SW05231T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/28/2008 13:16:41 CST
Sample ID:	344958	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344958_A Final_PDA
Date Acquired:	5/28/2008 12:09:38 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 21% -41% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.7	9.710	333950	15469
2	4.0	10.123	496532	23684
3	91.4	10.621	11322704	992405
4	1.6	11.041	197114	12714
5	0.3	11.513	37584	1787
Sum	100.00		12387884	1046059.8

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

**344958**

Lot # : **SW05231T**

Chemist : **Yan Li**

Date Acquired :

5/28/2008 13:35:12 CST

Expected MS :

MW: 1758.1

Acq. Method Set :

Import

Processing Method :

344958\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

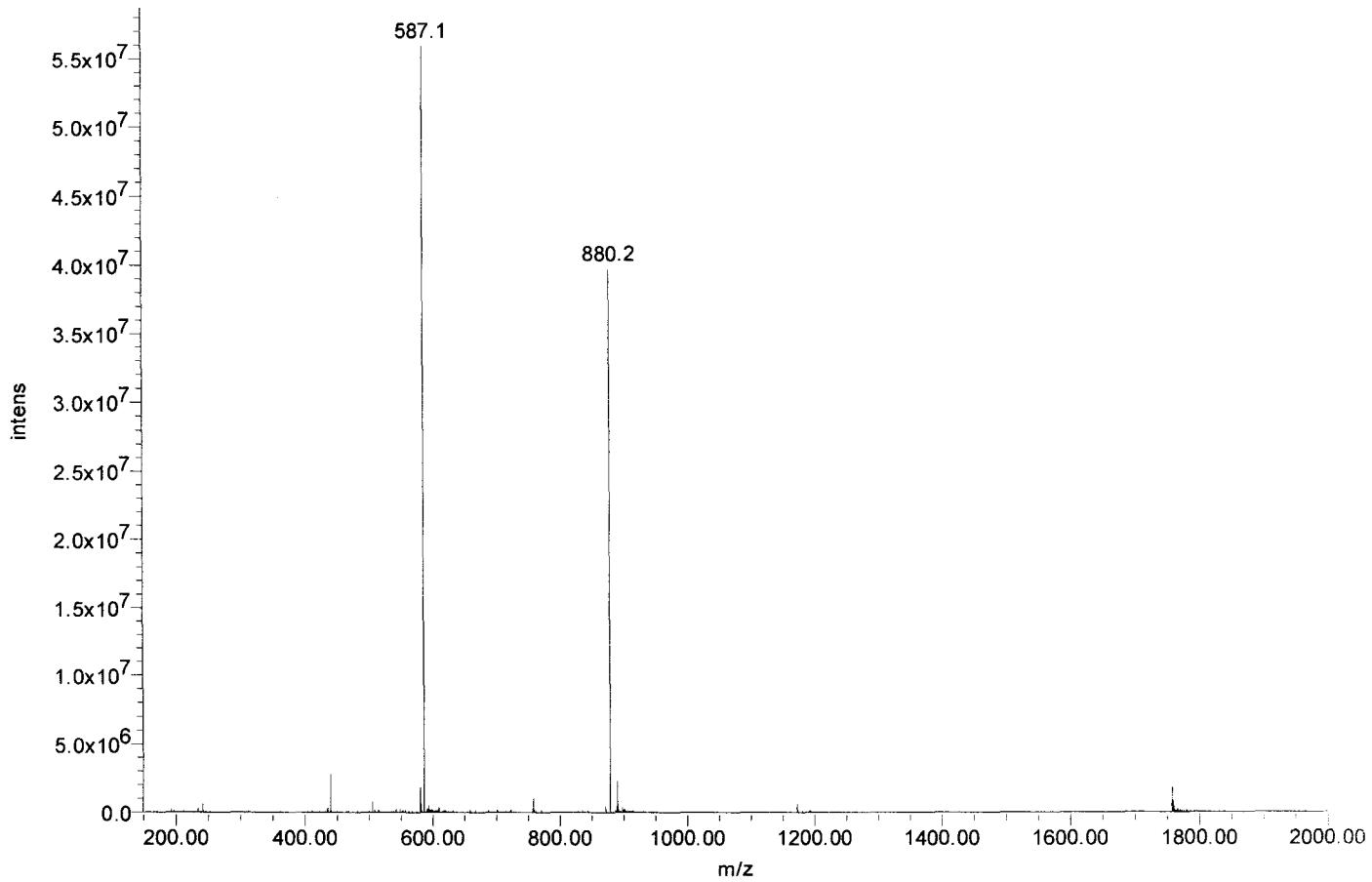
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #219  
GRWPITHLHTIDNGAN  
Cat#5928 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344959                   **Lot #:** SW06018T

**Sequence:** Gly-Arg-Trp-Pro-Ile-Thr-His-Leu-His-Thr-Asp-Asn-Gly-Ala-Asn

**Molecular Weight:** 1688.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 85.8%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 30% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 06/04/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.93		His	2.00	2.03		Pro	1.00	1.01	
Arg	1.00	1.00		Ile	1.00	0.96		Thr	2.00	2.13	
Asx	3.00	2.98		Leu	1.00	1.04		Trp	1.00	0.00	*1
Gly	2.00	1.98									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 06/05/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

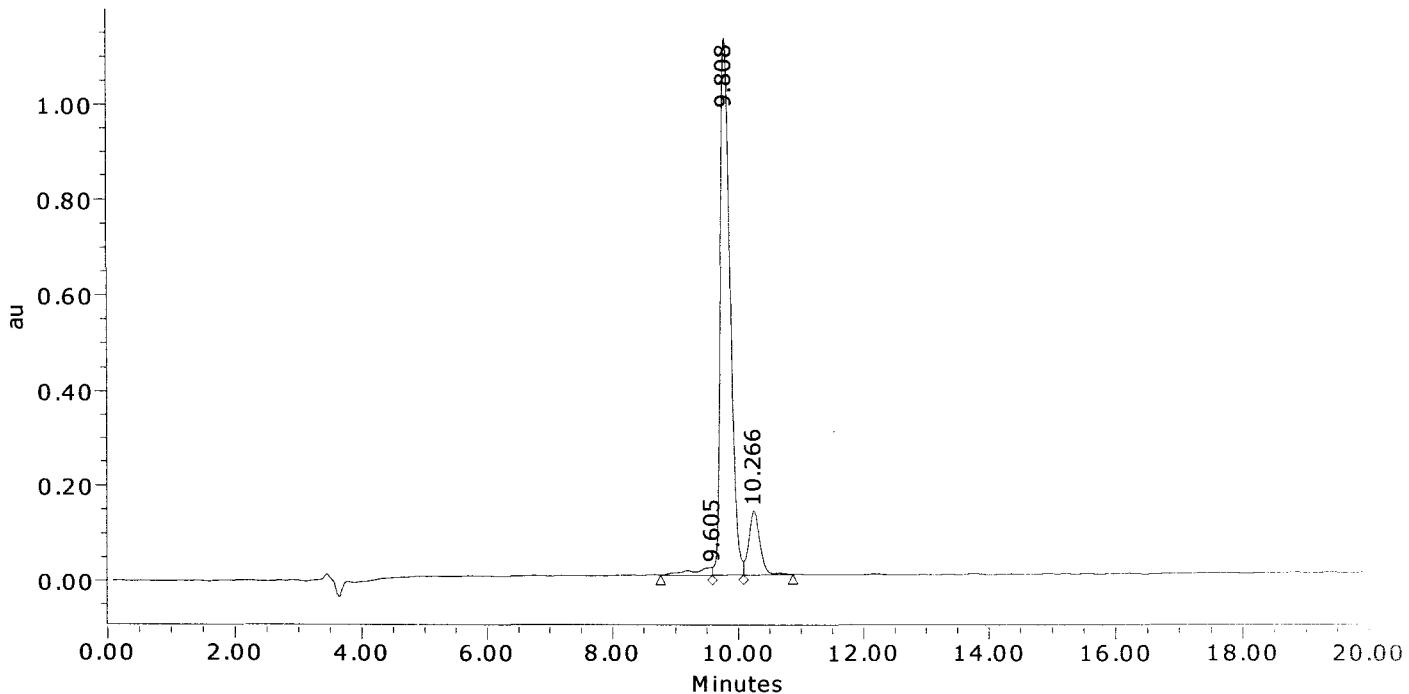
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344959/SW06018T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/5/2008 9:41:06 CST  
Sample ID: 344959 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344959\_A\_Final\_PDA  
Date Acquired: 6/4/2008 21:43:11 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.6	9.605	366663	16726
2	85.8	9.808	12241944	1126137
3	11.6	10.266	1656744	135006
Sum	100.00		14265351	1277869.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

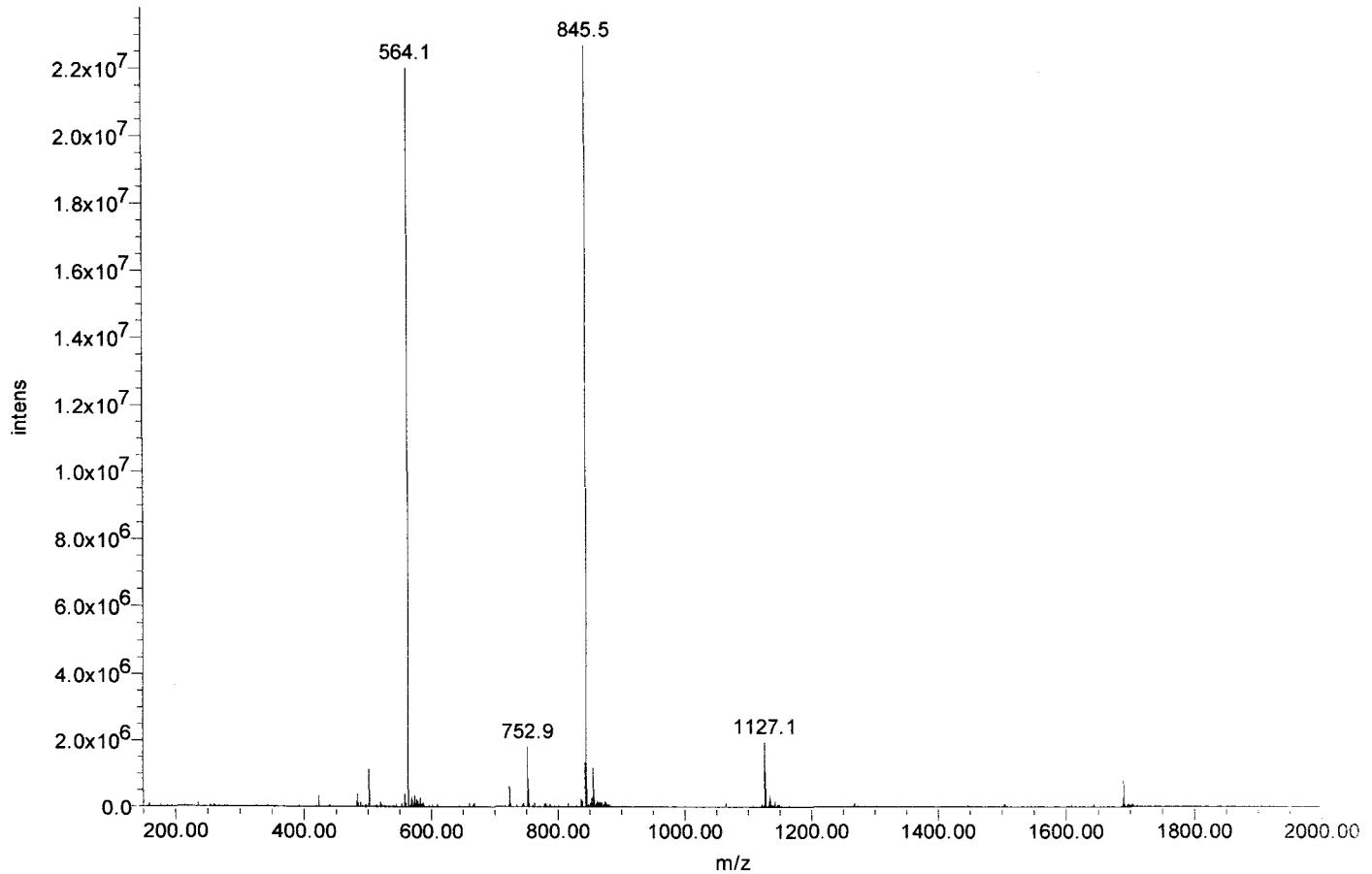
**Sample ID:**

**344959**

**Lot # : SW06018T**

**Chemist : Yan Li**

Date Acquired : 6/5/2008 10:59:38 CST  
Expected MS : MW: 1688.8  
Acq. Method Set : Import  
Processing Method : 344959\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #220  
I1HLHTIDNGANFASQ  
Cat#5929 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344960                   **Lot #:** SW05247T

**Sequence:** Ile-Thr-His-Leu-His-Thr-Asp-Asn-Gly-Ala-Asn-Phe-Ala-Ser-Gln

**Molecular Weight:** 1625.7 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 88.4%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 75.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/29/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		His	2.00	1.97		Phe	1.00	1.01	
Asx	3.00	2.96		Ile	1.00	0.94		Ser	1.00	0.88	
Glx	1.00	0.99		Leu	1.00	1.03		Thr	2.00	1.89	
Gly	1.00	0.99									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/02/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

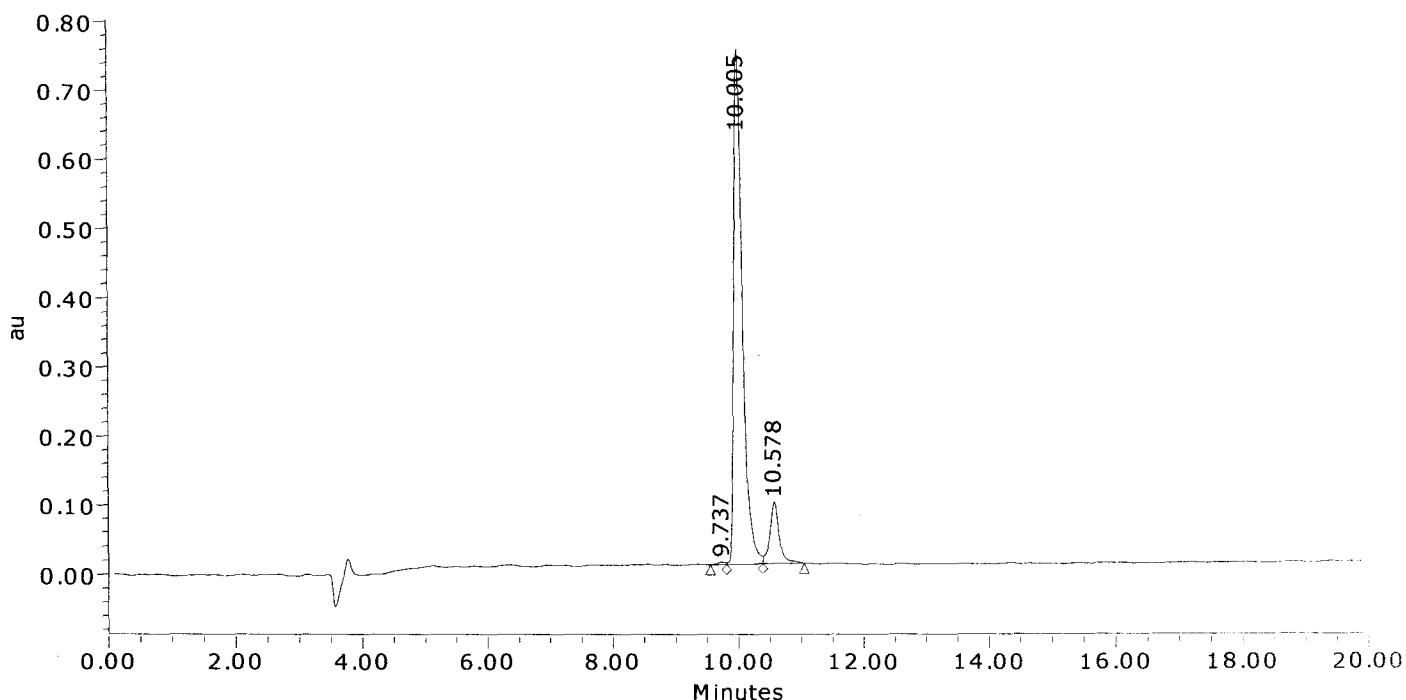
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344960/SW05247T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 15:41:33 CST  
Sample ID: 344960 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344960\_A Final\_PDA  
Date Acquired: 5/29/2008 12:48:19 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 13% -33% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.4	9.737	29984	3648
2	88.4	10.005	7170358	746399
3	11.2	10.578	911106	88578
Sum	100.00		8111449	838625.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344960**

**Lot # : SW05247T**

**Chemist : Yan Li**

Date Acquired :

5/29/2008 12:48:19 CST

Expected MS :

MW: 1625.7

Acq. Method Set :

Import

Processing Method :

344960\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

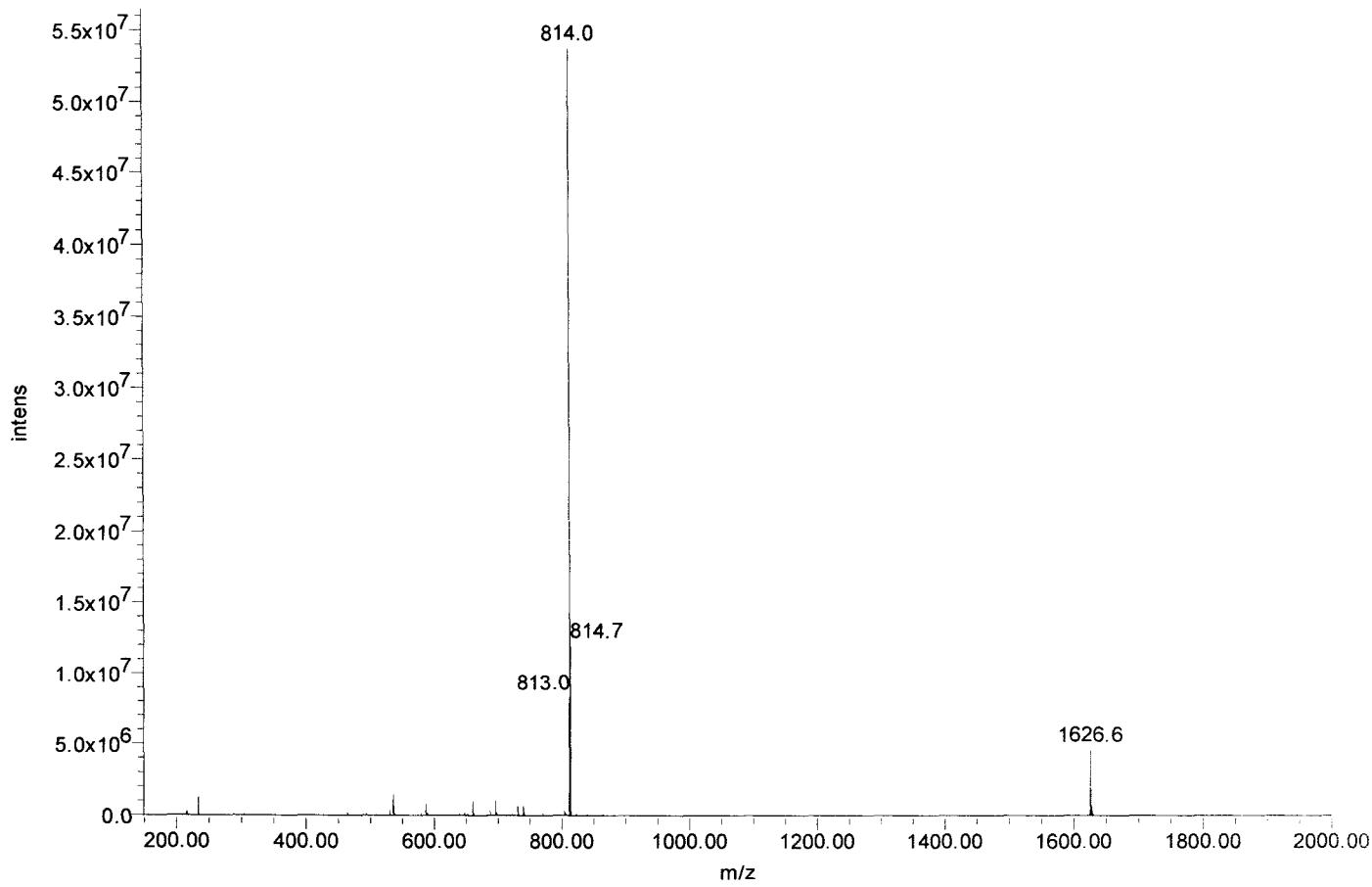
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #221  
HTDNGANFASQEVKM  
Cat#5930 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344961                   **Lot #:** SW05238T  
**Sequence:** His-Thr-Asp-Asn-Gly-Ala-Asn-Phe-Ala-Ser-Gln-Glu-Val-Lys-Met  
**Molecular Weight:** 1648.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 83.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 80.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.13		His	1.00	1.02		Ser	1.00	0.87	
Asx	3.00	3.00		Lys	1.00	1.04		Thr	1.00	0.94	
Glx	2.00	2.06		Met	1.00	1.05		Val	1.00	1.02	
Gly	1.00	1.04		Phe	1.00	1.05					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yair Li Date: 06/02/08  
Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

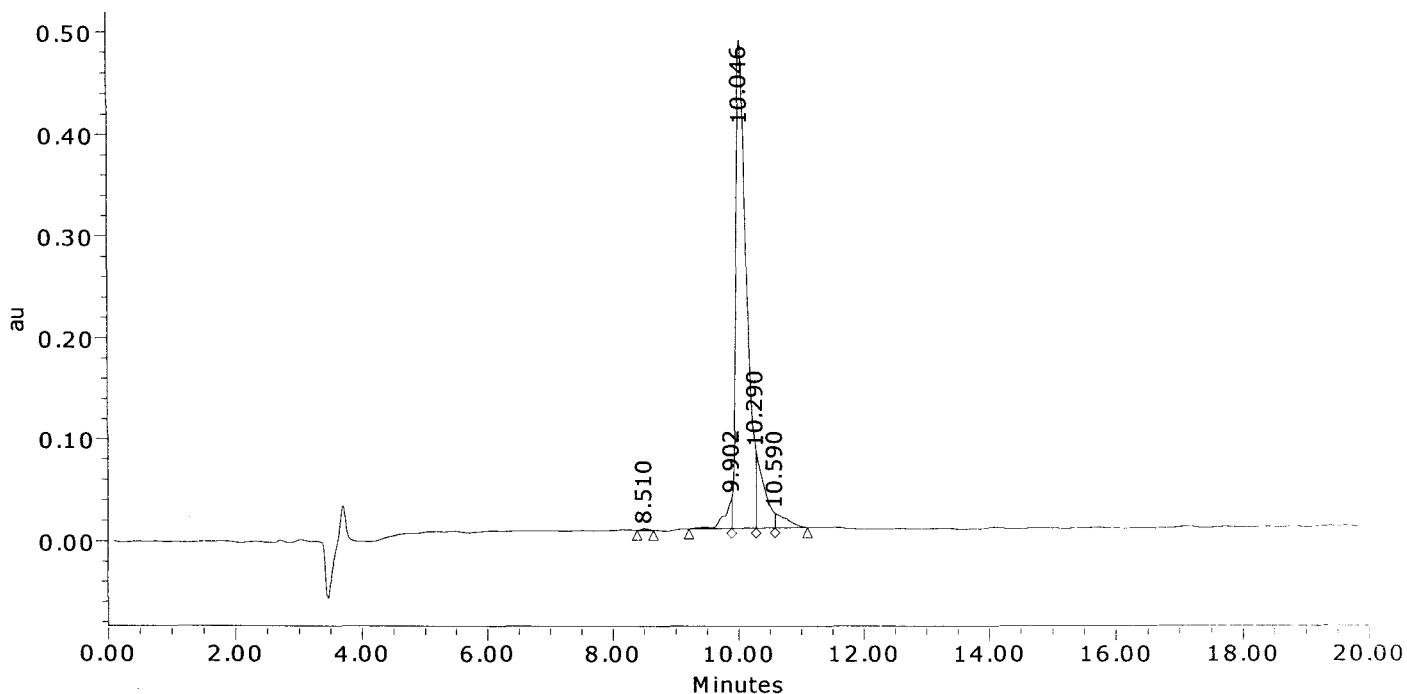
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344961/SW05238T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/29/2008 12:09:19 CST
Sample ID:	344961	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344961_A Final_PDA
Date Acquired:	5/28/2008 18:54:24 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.1	8.510	9664	1322
2	3.5	9.902	233368	29607
3	83.5	10.046	5583601	479254
4	10.1	10.290	678201	74464
5	2.8	10.590	185793	14189
Sum	100.00		6690627	598835.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344961**

**Lot # : SW05238T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 18:54:24 CST

Expected MS :

MW: 1648.8

Acq. Method Set :

Import

Processing Method :

344961\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

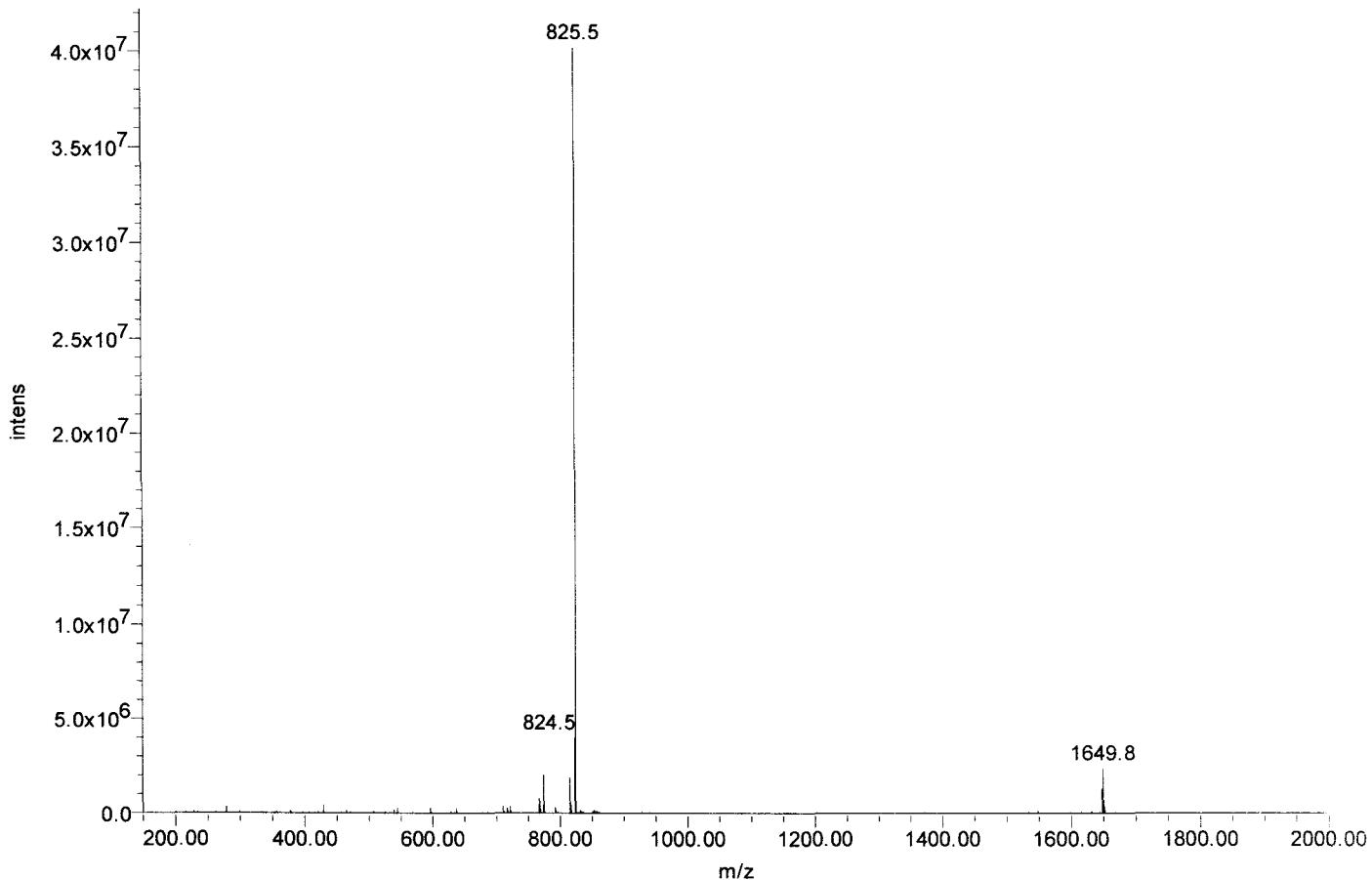
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #222  
GANFASQEVKMVAWW  
Cat#5931 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344962                   **Lot #:** SW06011T  
**Sequence:** Gly-Ala-Asn-Phe-Ala-Ser-Gln-Glu-Val-Lys-Met-Val-Ala-Trp-Trp  
**Molecular Weight:** 1724.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 90.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 40% Acetonitrile and 3% Acetic Acid in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 72.6%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/03/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	2.96		Lys	1.00	0.99		Ser	1.00	0.85	
Asx	1.00	1.00		Met	1.00	1.01		Trp	2.00	0.00	*1
Glx	2.00	2.24		Phe	1.00	0.97		Val	2.00	1.95	
Gly	1.00	0.94									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/05/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

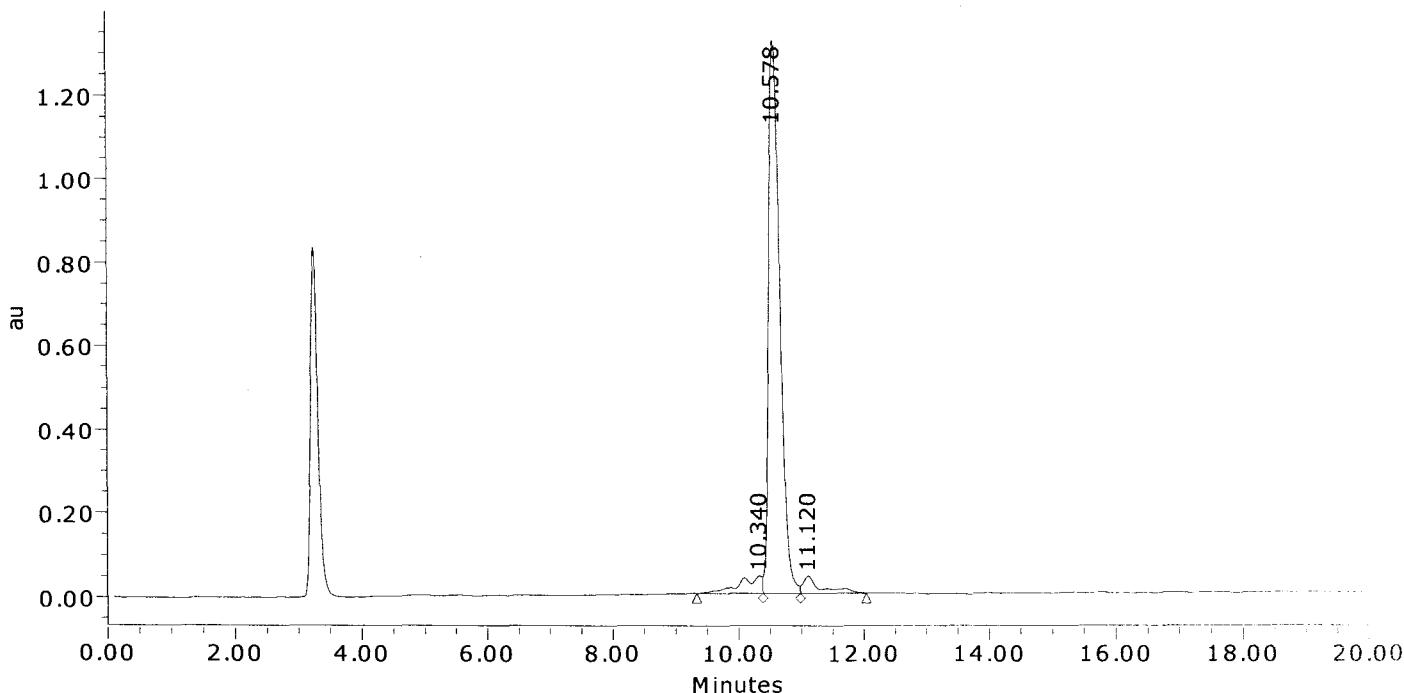
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344962/SW06011T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/3/2008 14:07:11 CST  
Sample ID: 344962 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344962\_A\_Final\_PDA  
Date Acquired: 6/3/2008 13:30:30 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 29% -49% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	5.3	10.340	978127	40821
2	90.4	10.578	16566742	1320949
3	4.2	11.120	772424	40892
Sum	100.00		18317294	1402662.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

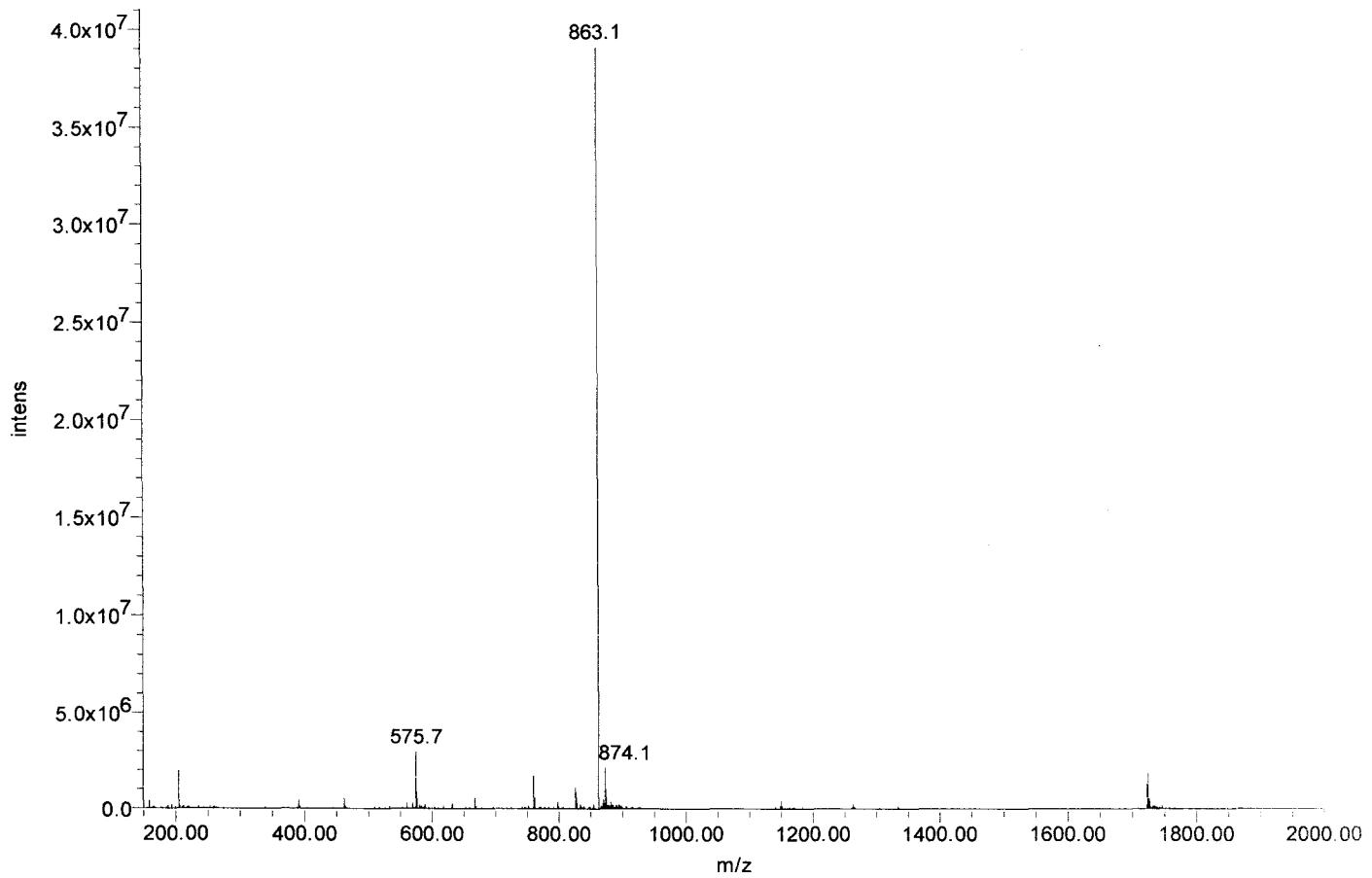
**Sample ID:**

**344962**

**Lot # : SW06011T**

**Chemist : Yan Li**

Date Acquired : 6/3/2008 13:58:33 CST  
Expected MS : MW: 1724.0  
Acq. Method Set : Import  
Processing Method : 344962\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #223  
ASQEVKMQAWWAGIE  
Cat#5932 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344963                   **Lot #:** SW05256T  
**Sequence:** Ala-Ser-Gln-Glu-Val-Lys-Met-Val-Ala-Trp-Trp-Ala-Gly-Ile-Glu  
**Molecular Weight:** 1705.0 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 89.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 85.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/30/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	3.00	3.00		Ile	1.00	0.93		Ser	1.00	0.83	
Glx	3.00	3.19		Lys	1.00	0.97		Trp	2.00	0.00	*1
Gly	1.00	0.97		Met	1.00	0.99		Val	2.00	1.90	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/05/08  
Quality Control Department

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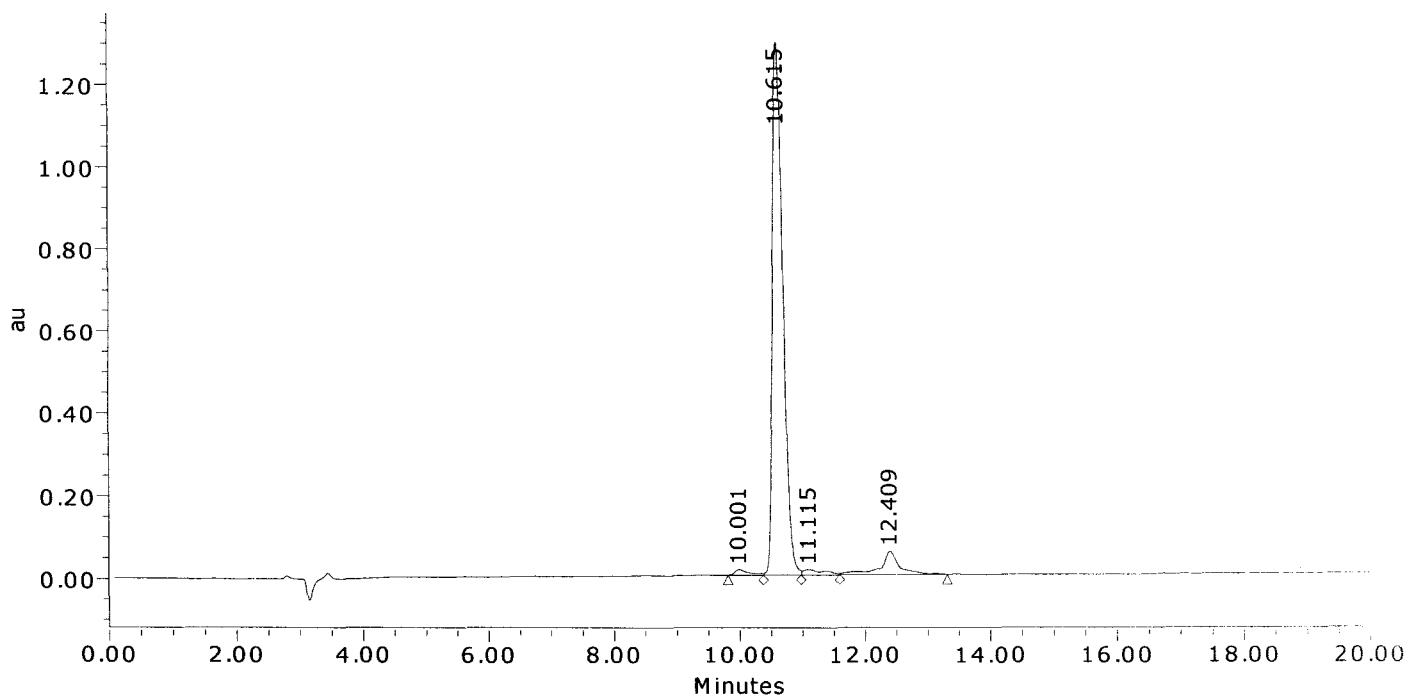
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344963/SW05256T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/30/2008 10:56:06 CST  
Sample ID: 344963 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344963\_A\_Final\_PDA  
Date Acquired: 5/30/2008 10:07:30 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (μV)</b>
1	1.2	10.001	207833	13262
2	89.8	10.615	15108615	1294347
3	1.9	11.115	319595	12950
4	7.0	12.409	1180781	55888
<b>Sum</b>	<b>100.00</b>		<b>16816824</b>	<b>1376447.3</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

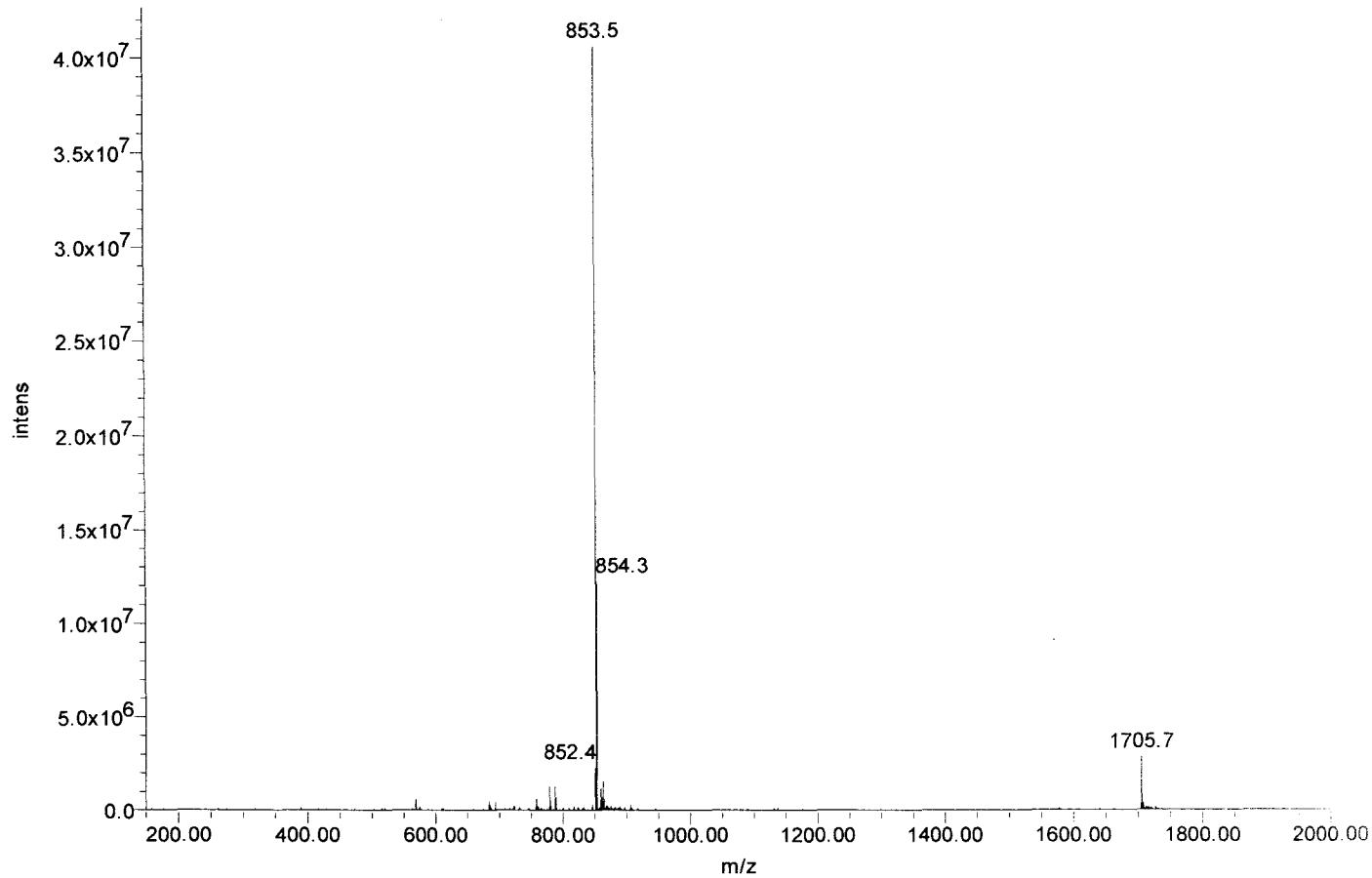
**Sample ID:**

**344963**

**Lot # : SW05256T**

**Chemist : Yan Li**

Date Acquired : 5/30/2008 13:37:56 CST  
Expected MS : MW: 1705.0  
Acq. Method Set : Import  
Processing Method : 344963\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #224  
VKMVAWWAGIEHTFG  
Cat#5933 Lot#/080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344964                   **Lot #:** SW05253T  
**Sequence:** Val-Lys-Met-Val-Ala-Trp-Trp-Ala-Gly-Ile-Glu-His-Thr-Phe-Gly  
**Molecular Weight:** 1732.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 83.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/30/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.13		Ile	1.00	1.03		Thr	1.00	1.06	
Glx	1.00	1.18		Lys	1.00	1.00		Trp	2.00	0.00	*1
Gly	2.00	2.07		Met	1.00	1.02		Val	2.00	1.94	
His	1.00	1.04		Phe	1.00	1.04					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/05/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

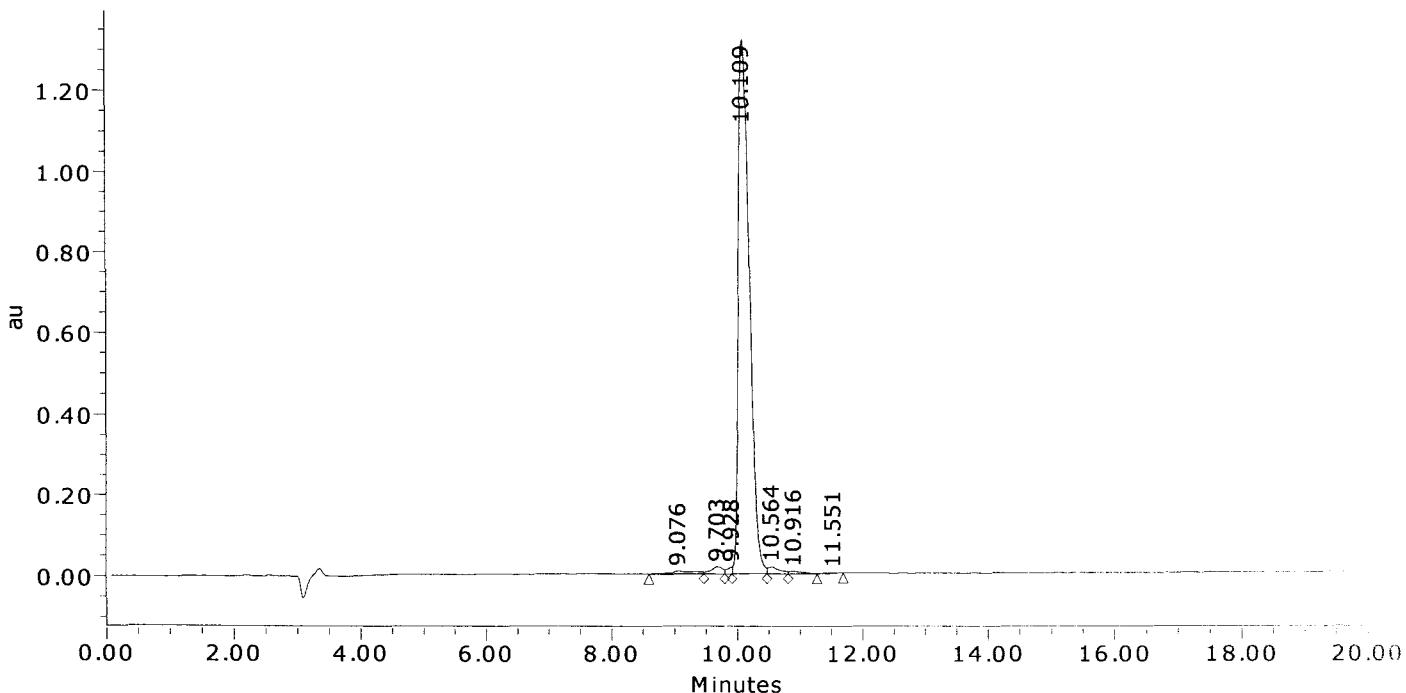
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344964/SW05253T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/30/2008 10:46:46 CST  
Sample ID: 344964 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344964\_A Final\_PDA  
Date Acquired: 5/30/2008 9:20:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 31% -51% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.9	9.076	154570	5872
2	1.2	9.703	207732	16650
3	0.5	9.928	84293	16049
4	95.5	10.109	16195061	1319319
5	1.2	10.564	210484	16147
6	0.5	10.916	82619	5399
7	0.2	11.551	28525	2165
Sum	100.00		16963285	1381601.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

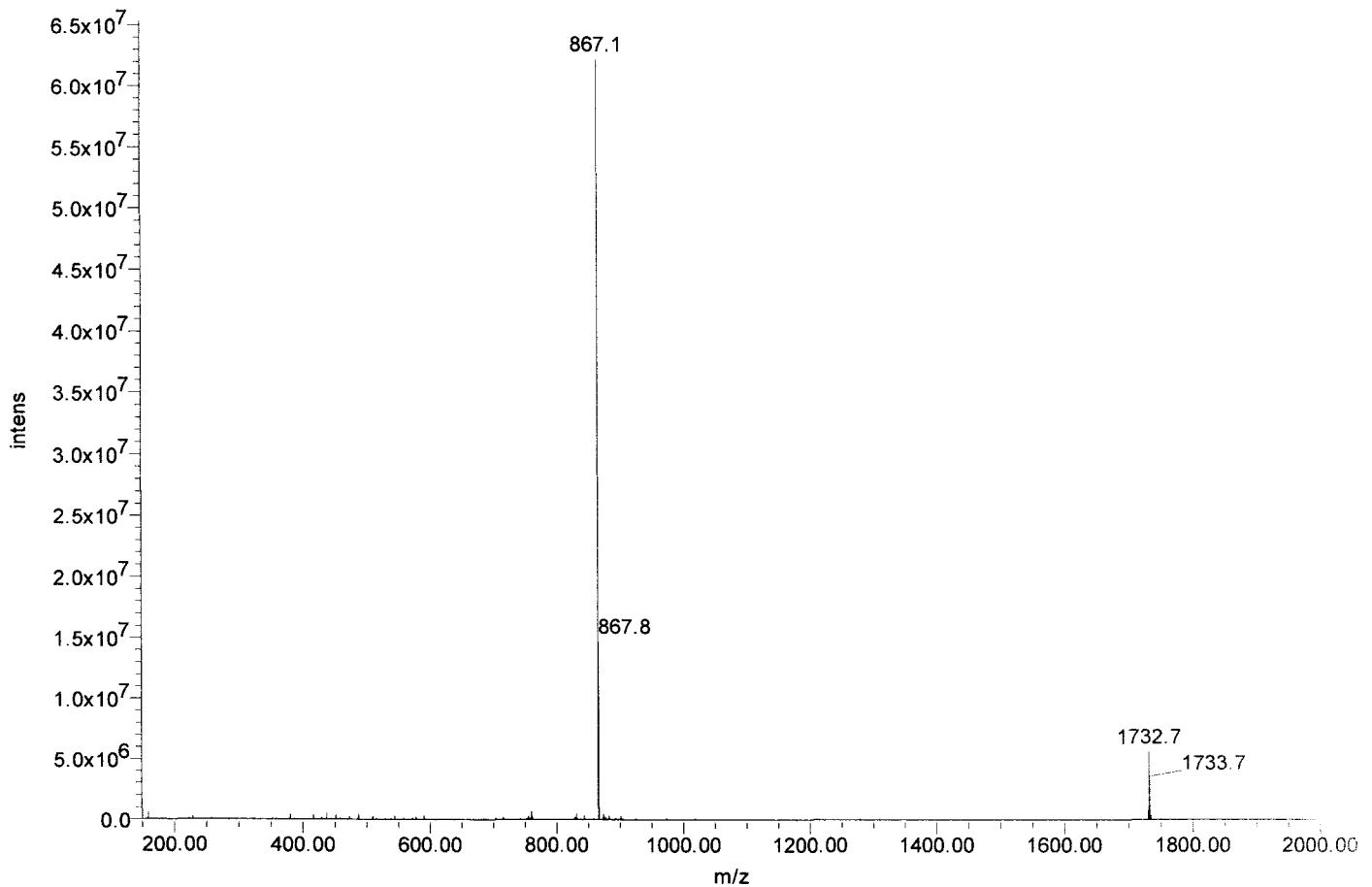
**Sample ID:**

**344964**

**Lot # : SW05253T**

**Chemist : Yan Li**

Date Acquired : 5/30/2008 9:20:36 CST  
Expected MS : MW: 1732.0  
Acq. Method Set : Import  
Processing Method : 344964\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #225  
AWWAGIEHTFGVPPYN  
Cat#5934 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344965                   **Lot #:** SW05223T

**Sequence:** Ala-Trp-Trp-Ala-Gly-Ile-Glu-His-Thr-Phe-Gly-Val-Pro-Tyr-Asn

**Molecular Weight:** 1748.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 80.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.00		His	1.00	1.02		Thr	1.00	1.04	
Asx	1.00	0.96		Ile	1.00	0.95		Trp	2.00	0.00	*1
Glx	1.00	1.15		Phe	1.00	1.01		Tyr	1.00	0.97	
Gly	2.00	1.98		Pro	1.00	0.95		Val	1.00	0.99	

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/30/08  
Quality Control Department

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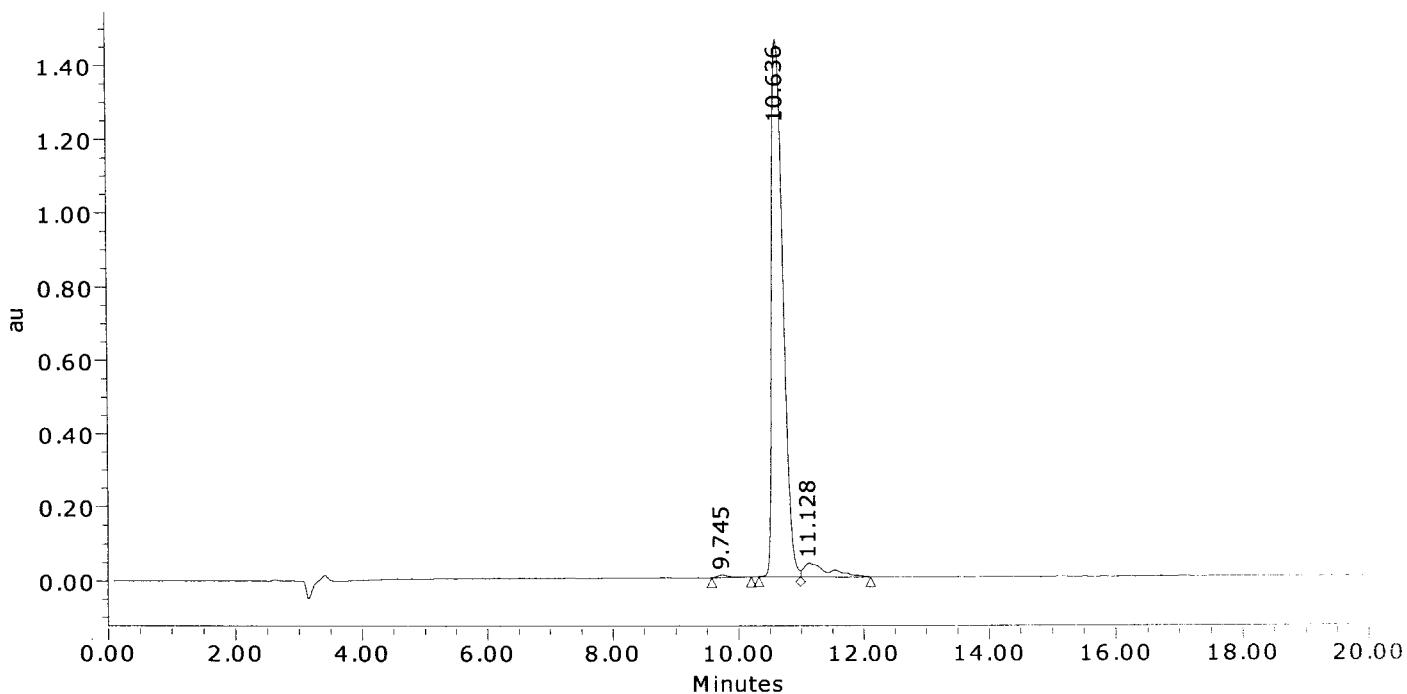
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344965/SW05223T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 12:11:17 CST  
Sample ID: 344965 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344965\_A\_Final\_PDA  
Date Acquired: 5/28/2008 9:14:11 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

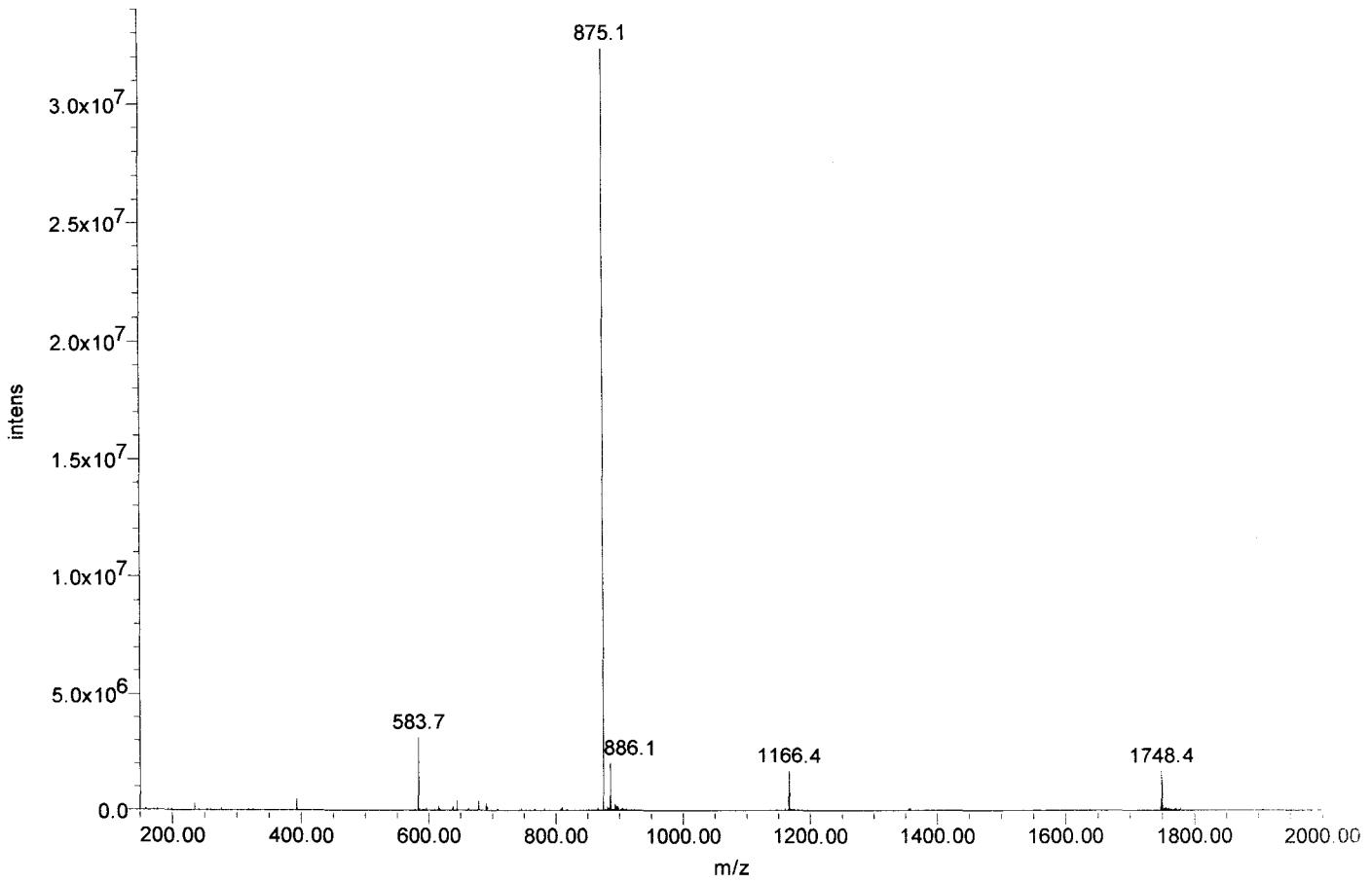
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 28% -48% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	9.745	92279	7323
2	94.3	10.636	18265672	1458388
3	5.2	11.128	1015040	36848
Sum	100.00		19372991	1502559.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344965</b>	<b>Lot # :</b> SW05223T	<b>Chemist :</b> Yan Li
<b>Date Acquired :</b>	5/28/2008 13:20:26 CST		
<b>Expected MS :</b>	MW: 1748.0		
<b>Acq. Method Set :</b>	Import		
<b>Processing Method :</b>	344965_A Final_MS		
<b>Data Path :</b>	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
<b>Run Time :</b>	1.0 Minutes		
<b>Flow rate :</b>	1.0 mL/min		
<b>Buffers :</b>	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
<b>Instruments :</b>	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





## Certificate of Analysis

**SIVmac239 Pol #226**  
GIEHTFGVPYNPQSQ  
Cat#5935 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344966                           **Lot #:** SW05241T

**Sequence:** Gly-Ile-Glu-His-Thr-Phe-Gly-Val-Pro-Tyr-Asn-Pro-Gln-Ser-Gln

**Molecular Weight:** 1673.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.9%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 79.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.06	Ile	1.00	1.01	Thr	1.00	1.00
Glx	3.00	3.00	Phe	1.00	1.06	Tyr	1.00	1.02
Gly	2.00	2.15	Pro	2.00	1.99	Val	1.00	1.03
His	1.00	1.06	Ser	1.00	0.83			

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Jan Li **Date:** 06/02/08  
**Quality Control Department**

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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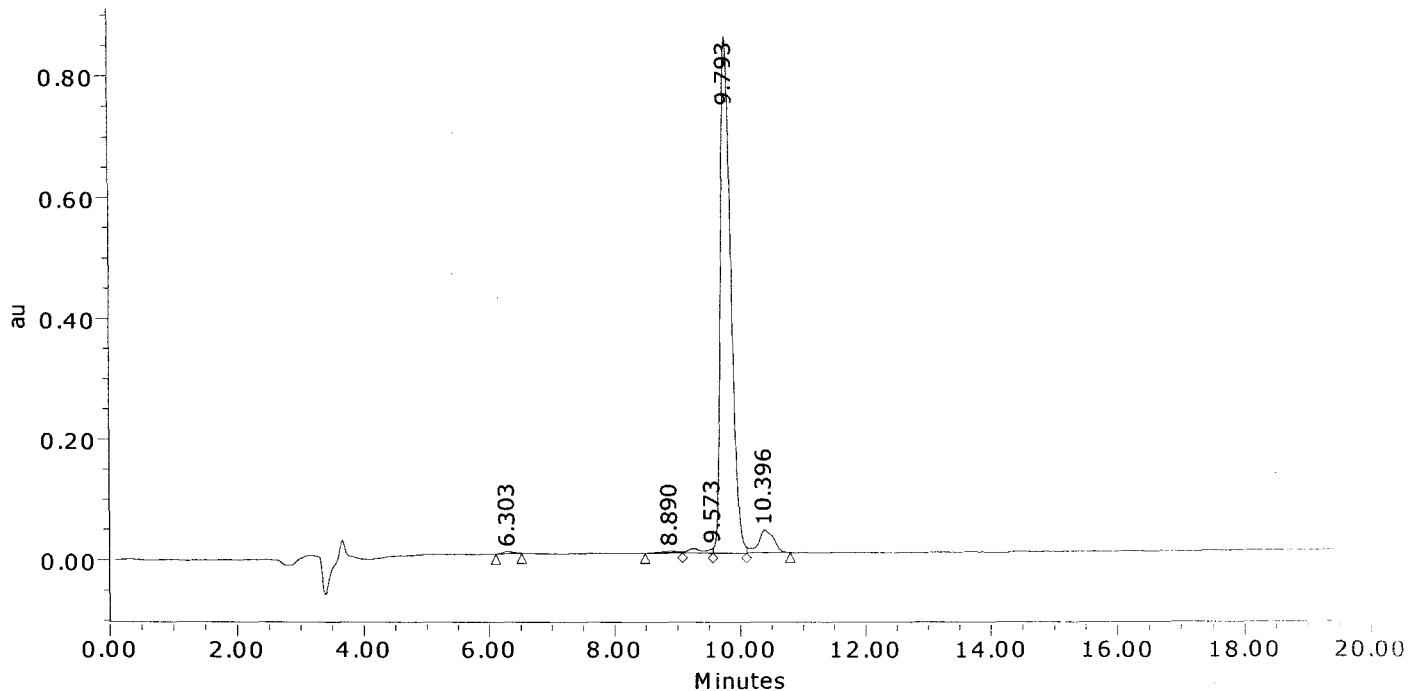
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344966/SW05241T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 10:36:20 CST  
Sample ID: 344966 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344966\_A Final\_PDA  
Date Acquired: 5/28/2008 18:14:35 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	6.303	41908	3291
2	0.6	8.890	62362	3093
3	1.3	9.573	136649	7769
4	91.9	9.793	9882616	852237
5	5.9	10.396	629698	36628
Sum	100.00		10753234	903017.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344966**

**Lot # : SW05241T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 18:14:35 CST

Expected MS :

MW: 1673.8

Acq. Method Set :

Import

Processing Method :

344966\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

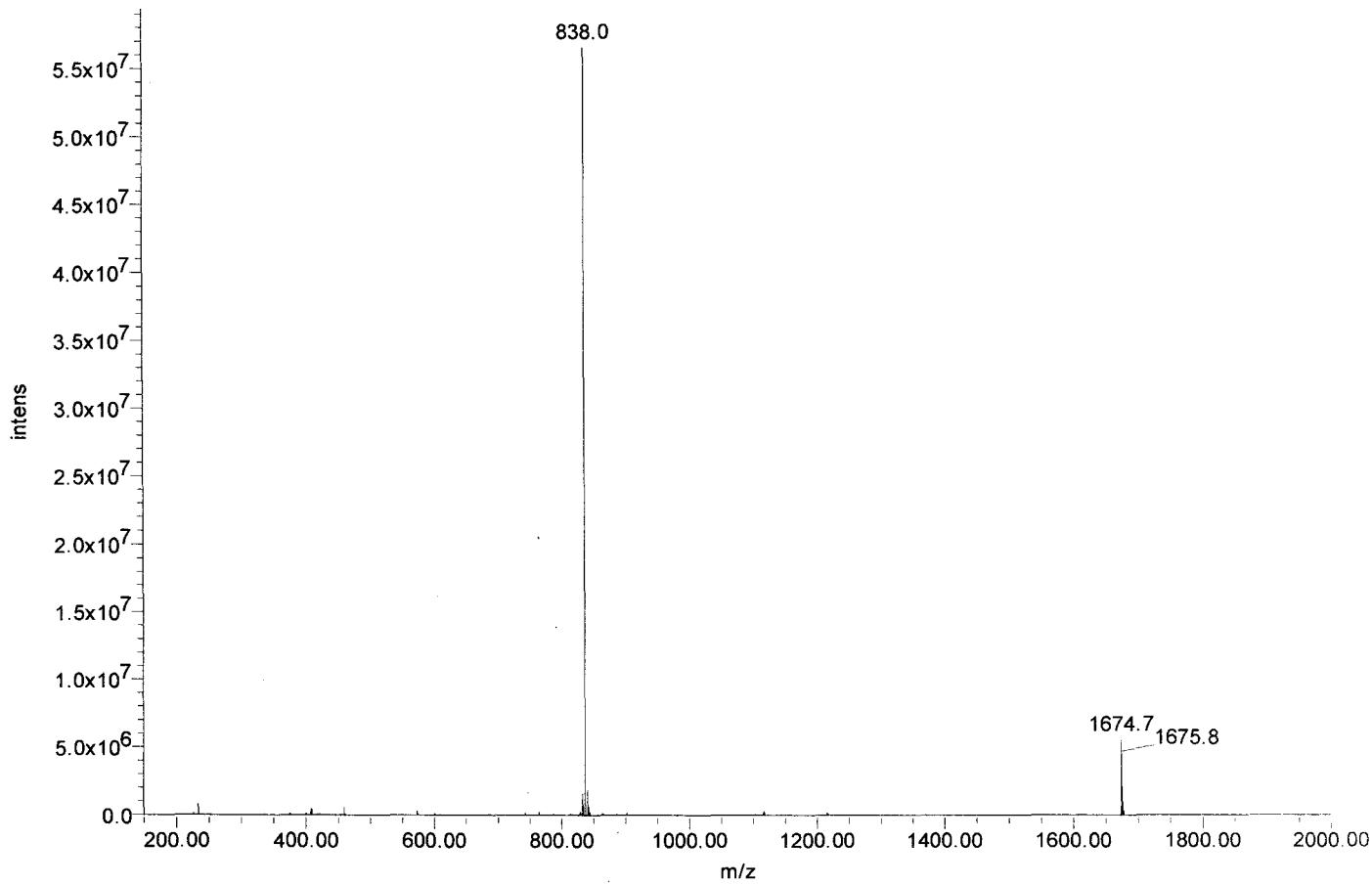
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #227  
TGFVPYNPQSQGVVE  
Cat#5936 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344967                   **Lot #:** SW05228T  
**Sequence:** Thr-Phe-Gly-Val-Pro-Tyr-Asn-Pro-Gln-Ser-Gln-Gly-Val-Val-Glu  
**Molecular Weight:** 1621.8 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 95.1%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** Off White lyophilized powder  
**Peptide Content:** 81.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Phe	1.00	1.04		Thr	1.00	0.96	
Glx	3.00	2.95		Pro	2.00	2.02		Tyr	1.00	1.02	
Gly	2.00	2.08		Ser	1.00	0.83		Val	3.00	2.41	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 06/02/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
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Tel: 408-733-7604 Fax: 408-733-7603

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

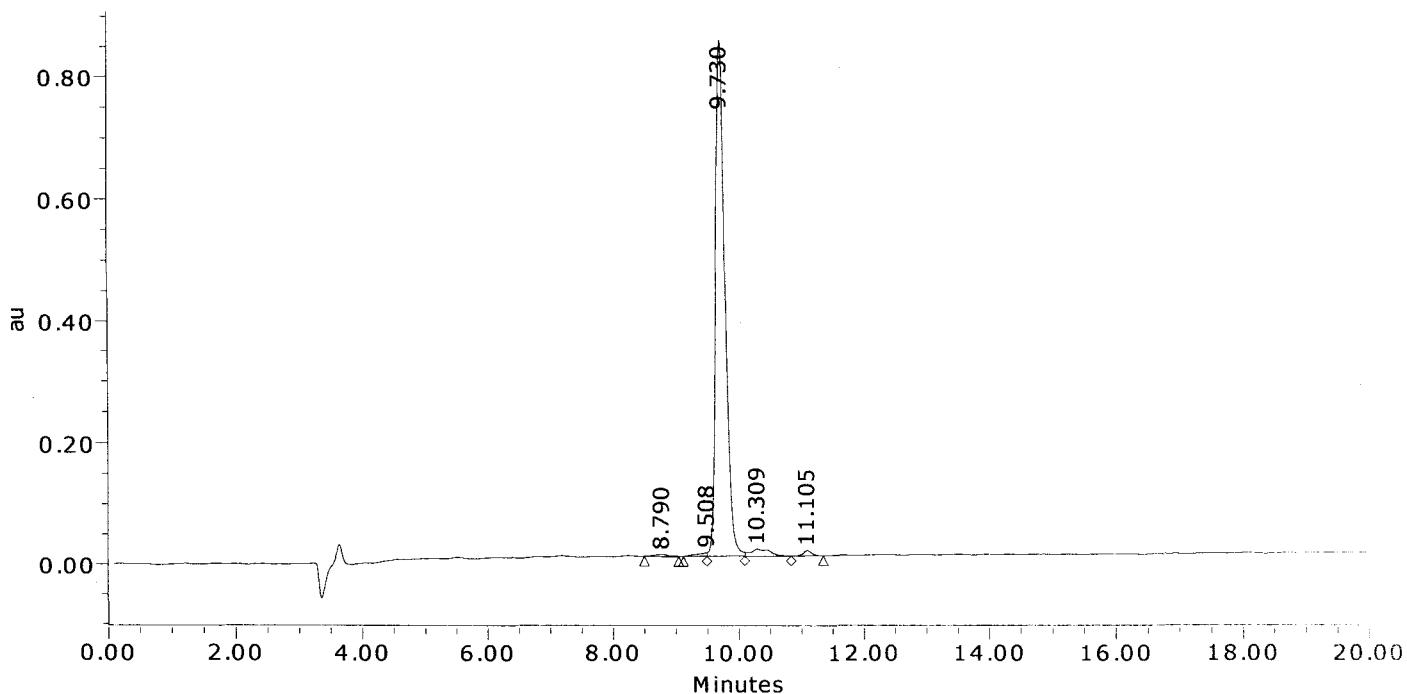
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344967/SW05228T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 13:29:48 CST  
Sample ID: 344967 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344967\_A\_Final\_PDA  
Date Acquired: 5/28/2008 12:49:11 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 19% -39% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (µV)
1	0.4	8.790	40981	2874
2	0.7	9.508	64785	6104
3	95.1	9.730	8803248	847191
4	2.8	10.309	261883	11809
5	1.0	11.105	89381	9053
Sum	100.00		9260279	877031.2

**American Peptide Company, Inc.**  
**MS Analysis Report**

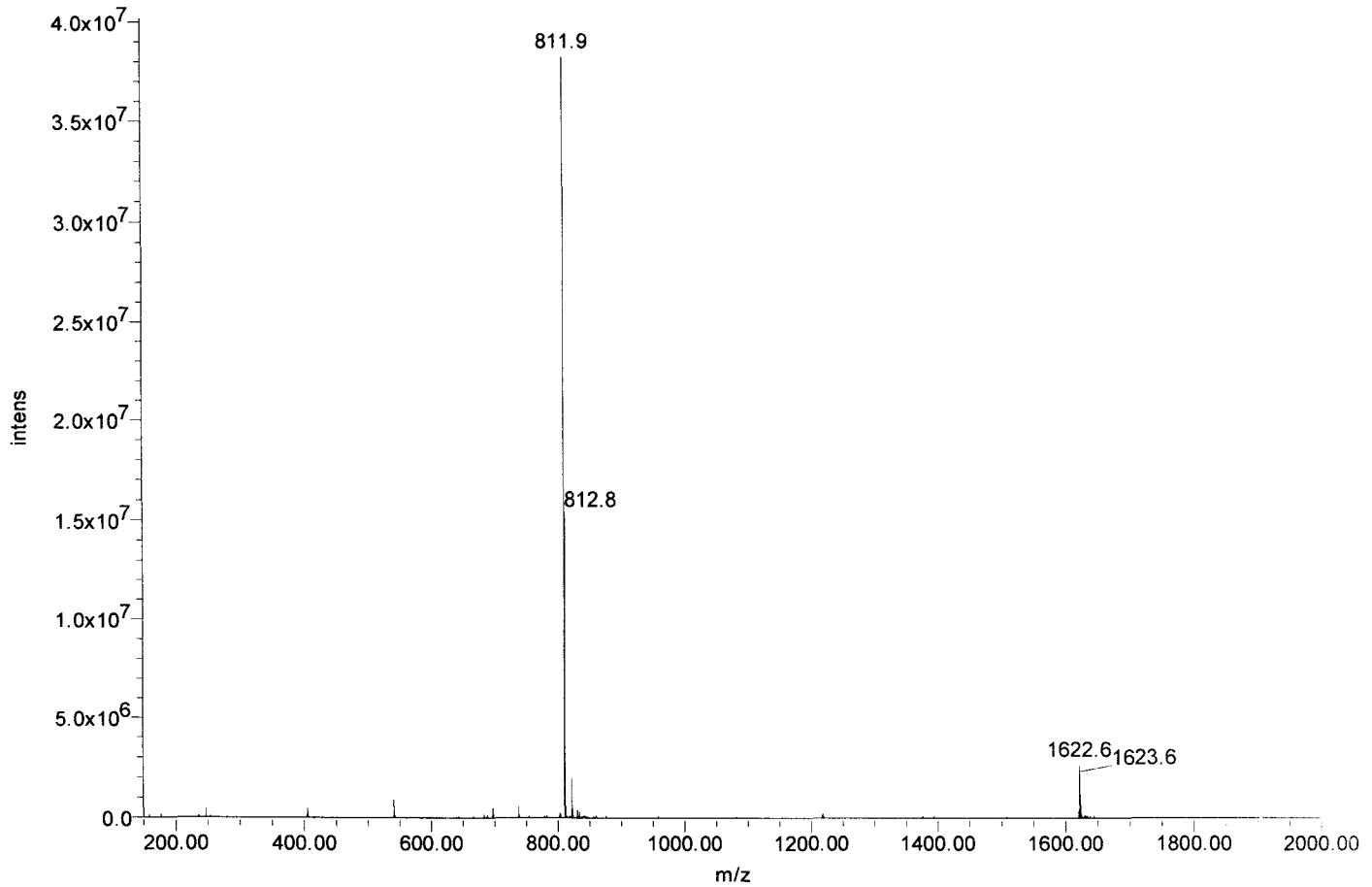
**Sample ID:**

**344967**

**Lot # : SW05228T**

**Chemist : Yan Li**

Date Acquired : 5/28/2008 13:28:33 CST  
Expected MS : MW: 1621.8  
Acq. Method Set : Import  
Processing Method : 344967\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #228  
PYNPQSQGVVEAMNH  
Cat#5937 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344968                   **Lot #:** SW05190T

**Sequence:** Pro-Tyr-Asn-Pro-Gln-Ser-Gln-Gly-Val-Val-Glu-Ala-Met-Asn-His

**Molecular Weight:** 1670.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 88.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 85.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		His	1.00	1.01		Ser	1.00	0.84	
Asx	2.00	1.94		Met	1.00	1.00		Tyr	1.00	0.91	
Glx	3.00	3.35		Pro	2.00	1.95		Val	2.00	1.45	*1
Gly	1.00	0.98									

\*1 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/28/08

Quality Control Department

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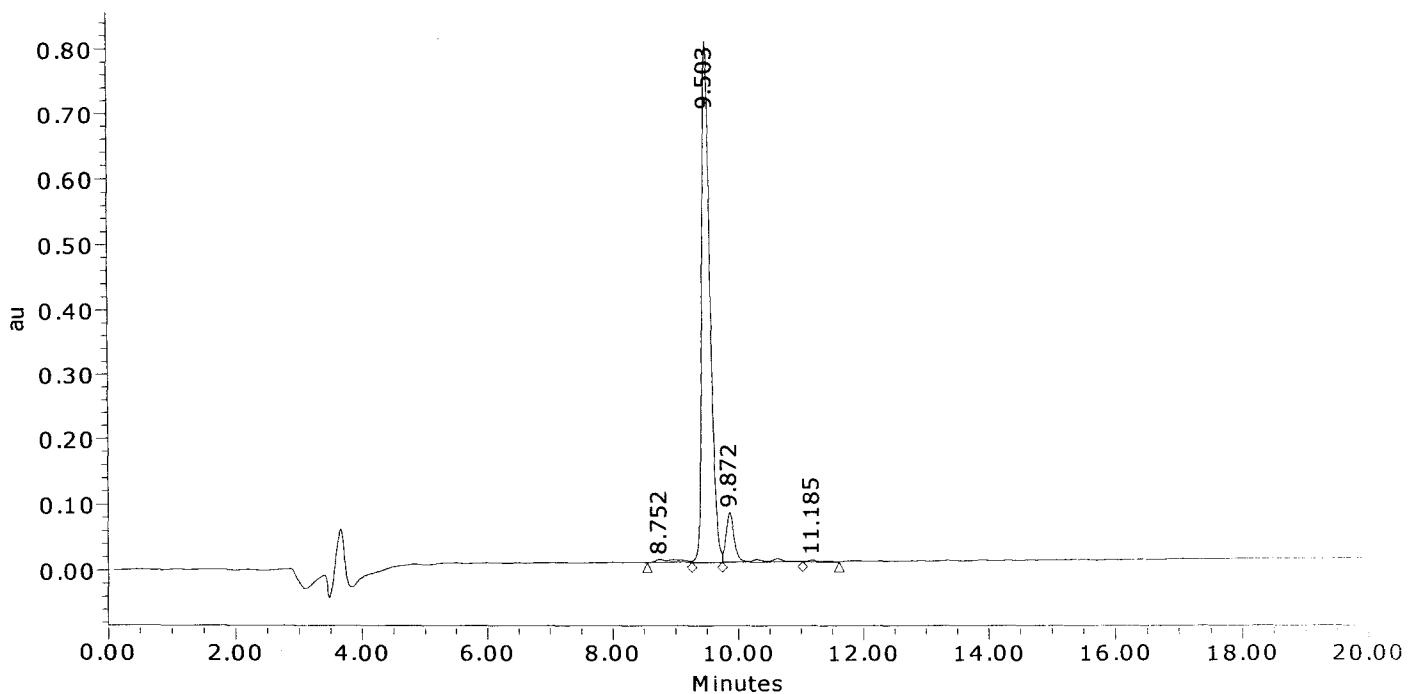
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344968/SW05190T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 12:27:51 CST  
Sample ID: 344968 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344968\_A Final\_PDA  
Date Acquired: 5/26/2008 20:44:01 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.4	8.752	117526	4658
2	88.7	9.503	7319197	800259
3	9.5	9.872	782704	75538
4	0.3	11.185	28713	2304
<b>Sum</b>	<b>100.00</b>		<b>8248139</b>	<b>882758.8</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344968**

**Lot # : SW05190T**

**Chemist : Yan Li**

**Date Acquired :**

5/26/2008 20:44:01 CST

**Expected MS :**

MW: 1670.8

**Acq. Method Set :**

Import

**Processing Method :**

344968\_A Final\_MS

**Data Path :**

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

**Run Time :**

25.0 Minutes

**Flow rate :**

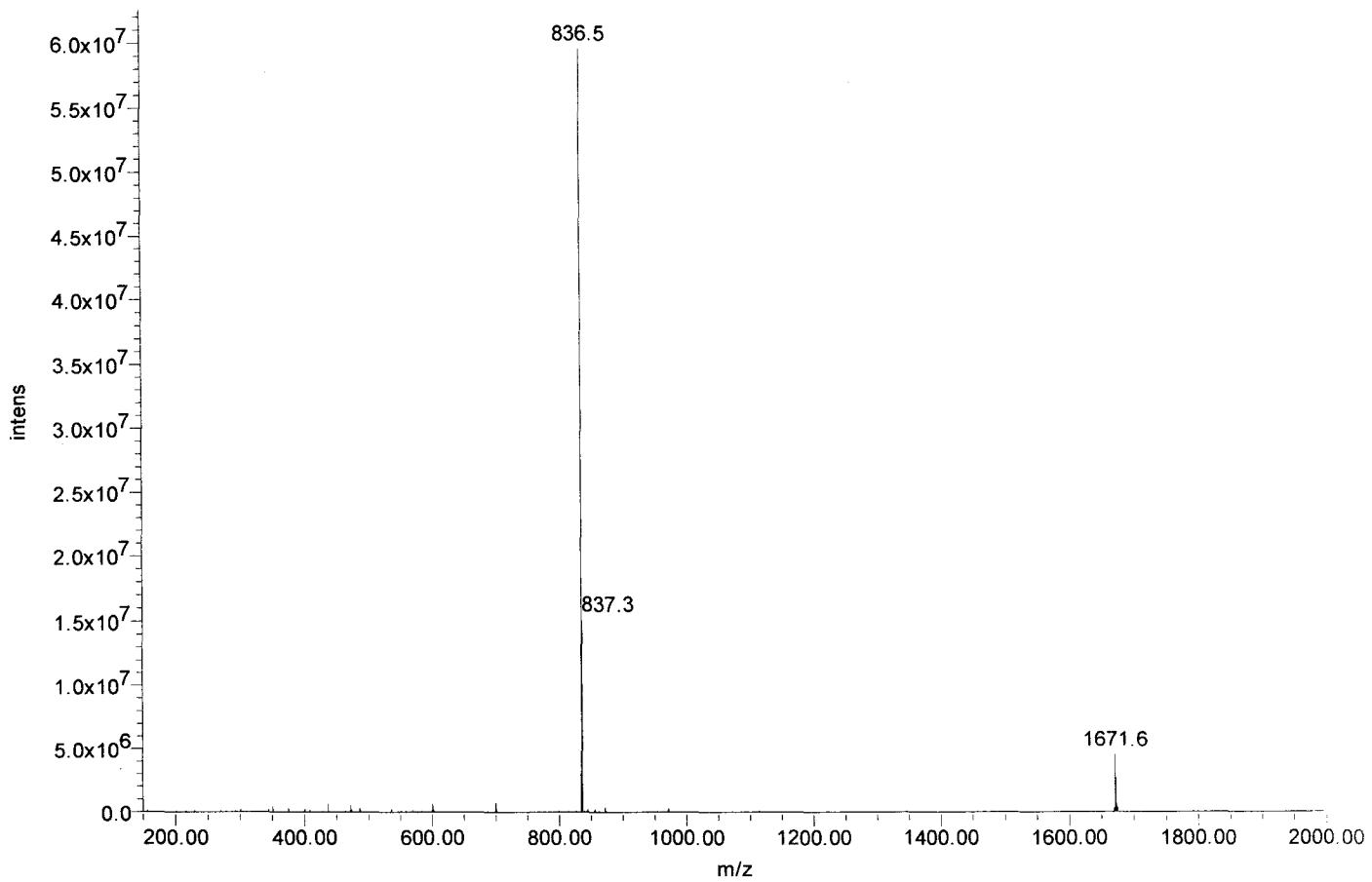
1.0 mL/min

**Buffers :**

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

**Instruments :**

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #229  
QSQGVVAMNHHLKN  
Cat#5938 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344969                   **Lot #:** SW05151T

**Sequence:** Gln-Ser-Gln-Gly-Val-Val-Glu-Ala-Met-Asn-His-His-Leu-Lys-Asn

**Molecular Weight:** 1691.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.5%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 69.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/22/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.08		His	2.00	2.09		Met	1.00	1.10	
Asx	2.00	2.07		Leu	1.00	1.10		Ser	1.00	0.81	
Glx	3.00	3.00		Lys	1.00	1.05		Val	2.00	1.52	*1
Gly	1.00	1.07									

\*1 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/26/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

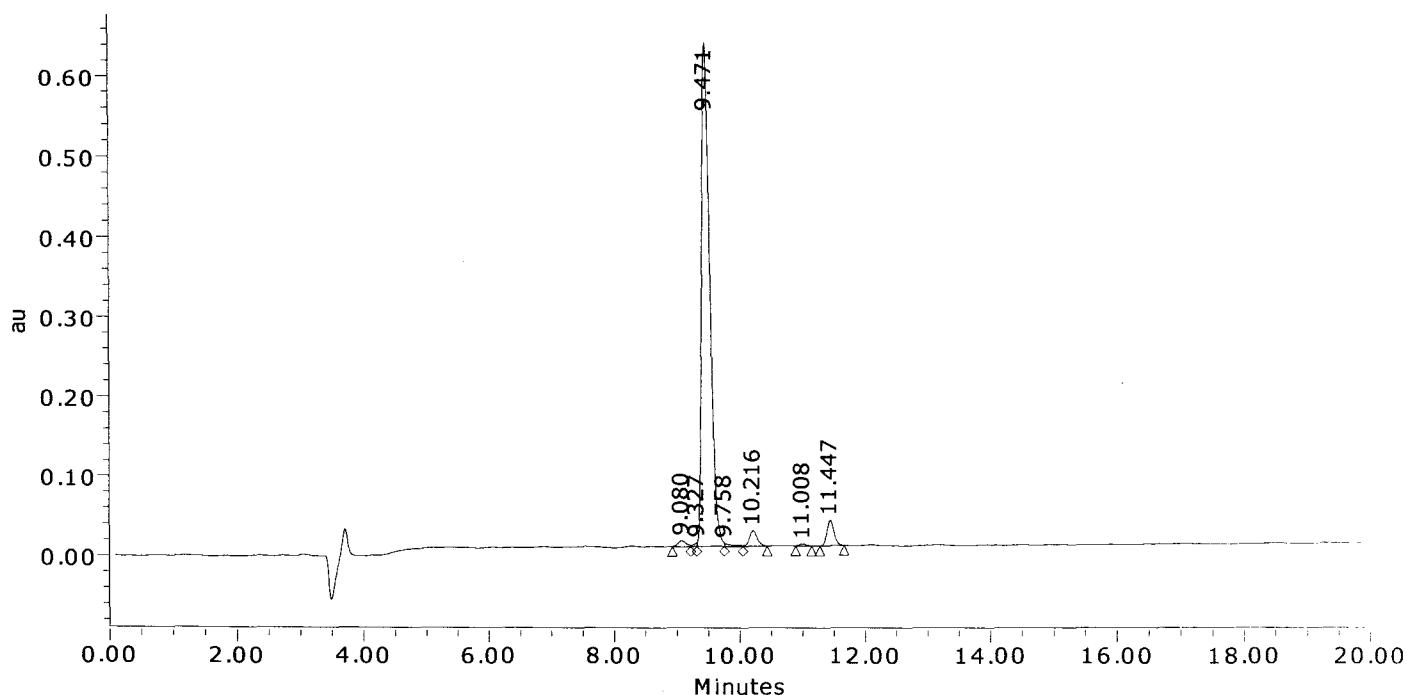
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344969/SW05151T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/23/2008 10:19:19 CST  
Sample ID: 344969 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344969\_A Final\_PDA  
Date Acquired: 5/22/2008 21:33:20 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

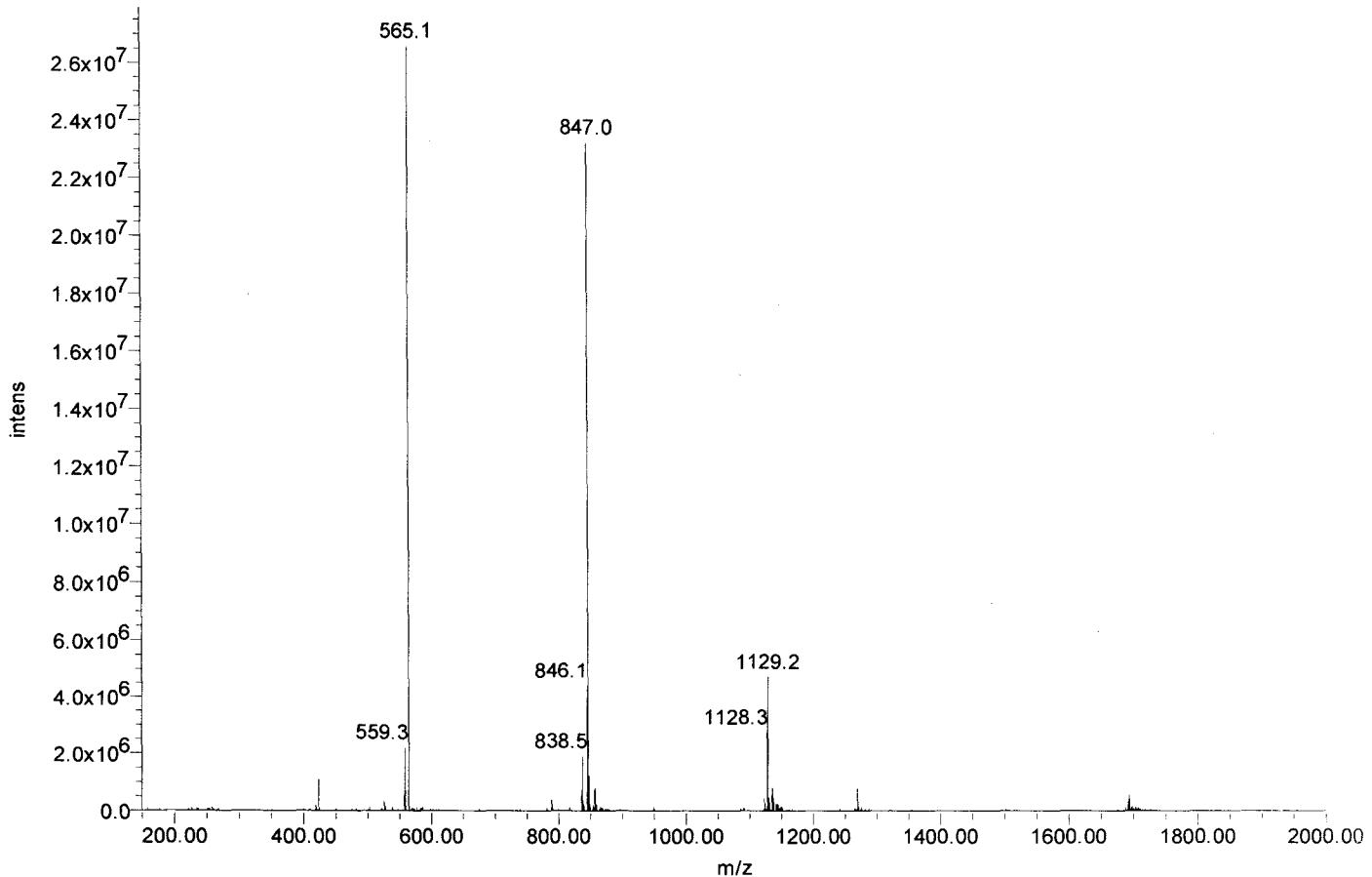


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.0	9.080	61348	7076
2	0.2	9.327	14833	4921
3	91.5	9.471	5744405	630297
4	0.5	9.758	31039	4332
5	2.5	10.216	159636	18948
6	0.2	11.008	15655	2080
7	4.0	11.447	249656	31839
Sum	100.00		6276571	699493.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344969      **Lot # :** SW05151T      **Chemist :** Yan Li

Date Acquired : 5/23/2008 12:22:27 CST  
Expected MS : MW: 1691.9  
Acq. Method Set : Import  
Processing Method : 344969\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #230  
VVEAMNHHLKNQIDR  
Cat#5939 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344970                   **Lot #:** SW05234T

**Sequence:** Val-Val-Glu-Ala-Met-Asn-His-His-Leu-Lys-Asn-Gln-Ile-Asp-Arg

**Molecular Weight:** 1804.1 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 65.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		His	2.00	2.02		Lys	1.00	1.00	
Arg	1.00	1.00		Ile	1.00	0.96		Met	1.00	1.01	
Asx	3.00	3.07		Leu	1.00	1.04		Val	2.00	1.39	*1
Glx	2.00	1.92									

\*1 Val-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 06/02/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

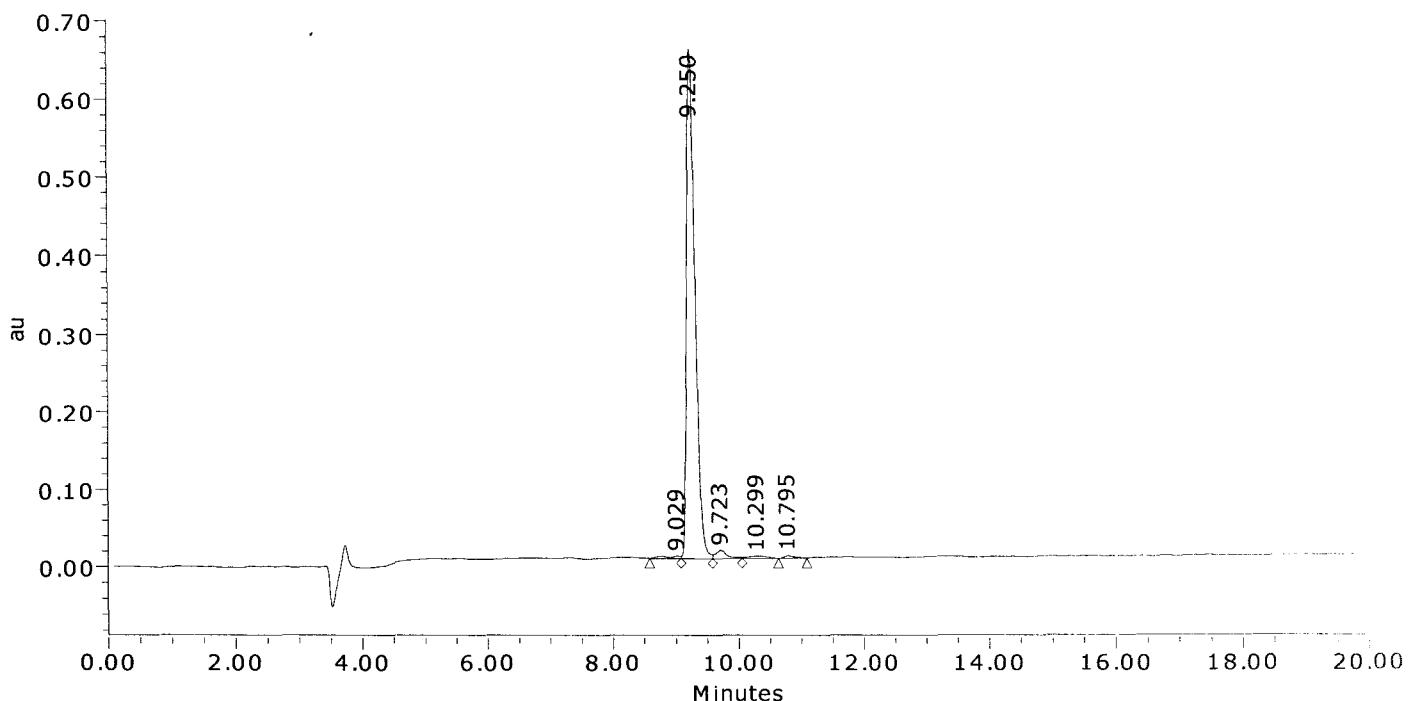
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344970/SW05234T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters-lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 11:46:20 CST  
Sample ID: 344970 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344970\_A Final\_PDA  
Date Acquired: 5/28/2008 20:13:34 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 14% -34% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.8	9.029	51024	2929
2	95.9	9.250	6125813	653693
3	1.9	9.723	121945	10606
4	0.8	10.299	50962	2565
5	0.6	10.795	35426	3229
Sum	100.00		6385170	673020.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344970

Lot # : SW05234T

Chemist : Yan Li

Date Acquired :

5/28/2008 20:13:34 CST

Expected MS :

MW: 1804.1

Acq. Method Set :

Import

Processing Method :

344970\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

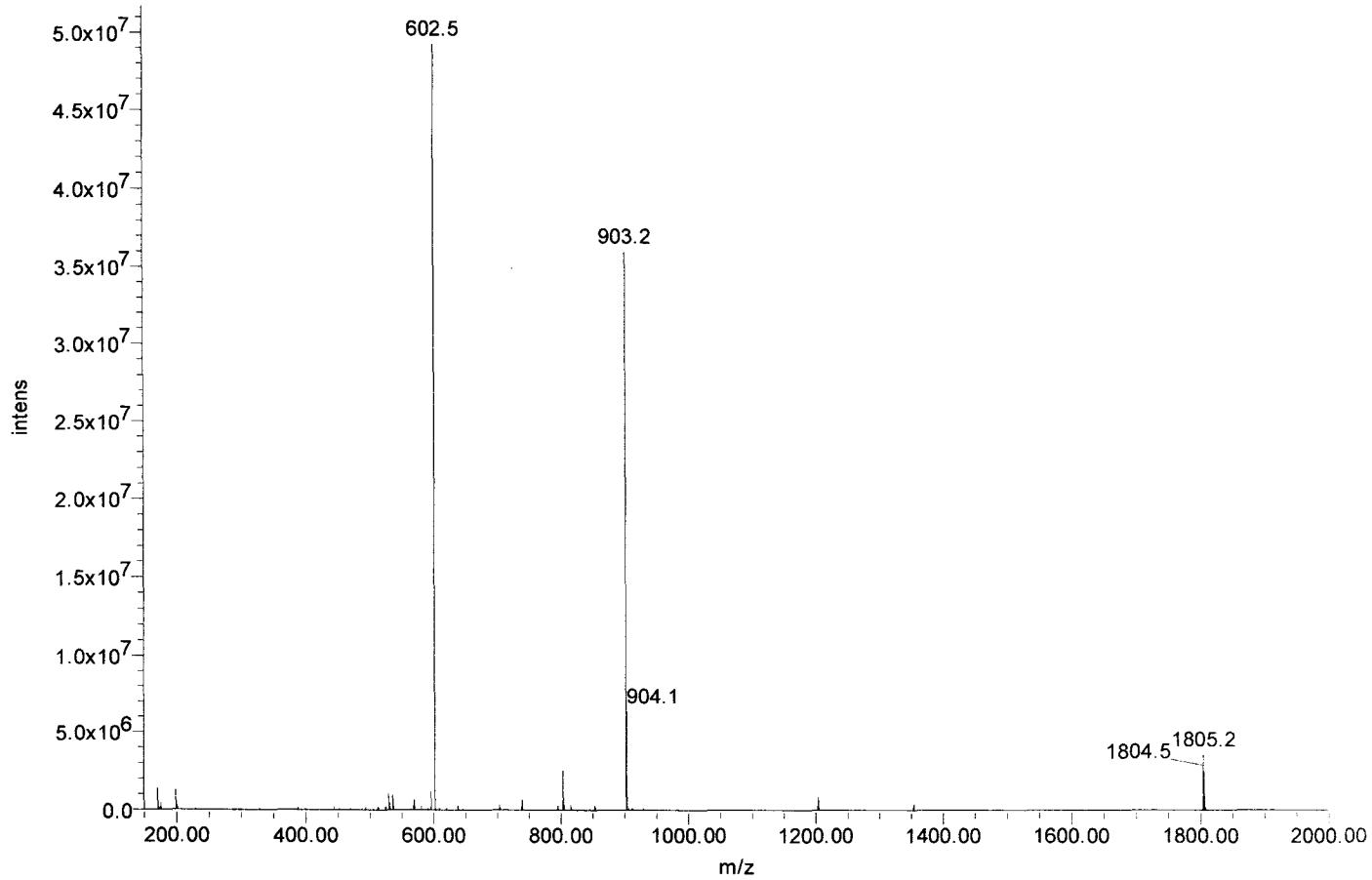
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #231  
MNHHILKNQIDRIREQ  
Cat#5940 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344971                   **Lot #:** SW05216T

**Sequence:** Met-Asn-His-His-Leu-Lys-Asn-Gln-Ile-Asp-Arg-Ile-Arg-Glu-Gln

**Molecular Weight:** 1932.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 70.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00	His	2.00	2.00		Lys	1.00	1.00
Asx	3.00	3.06	Ile	2.00	1.91		Met	1.00	1.01
Glx	3.00	2.88	Leu	1.00	1.05				

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/30/08  
Quality Control Department

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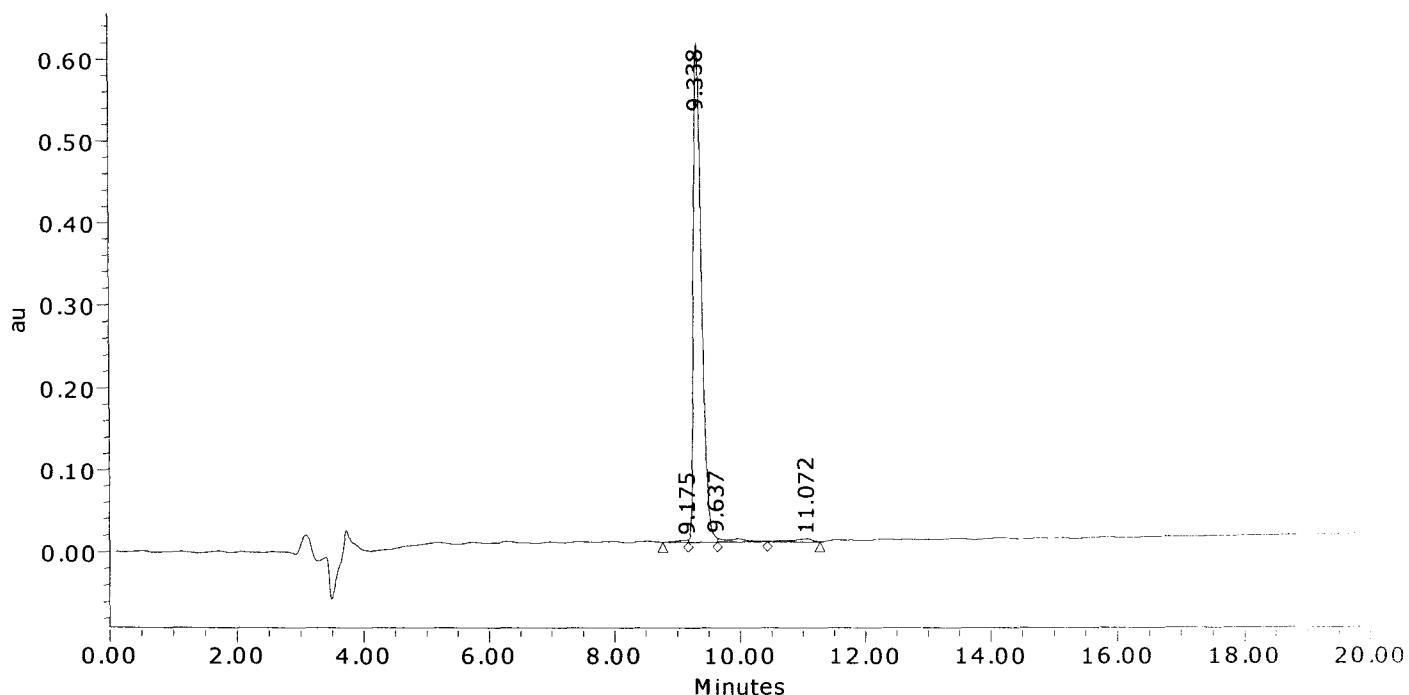
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344971/SW05216T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/27/2008 16:17:30 CST
Sample ID:	344971	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344971_A Final_PDA
Date Acquired:	5/27/2008 15:36:01 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 15% -35% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

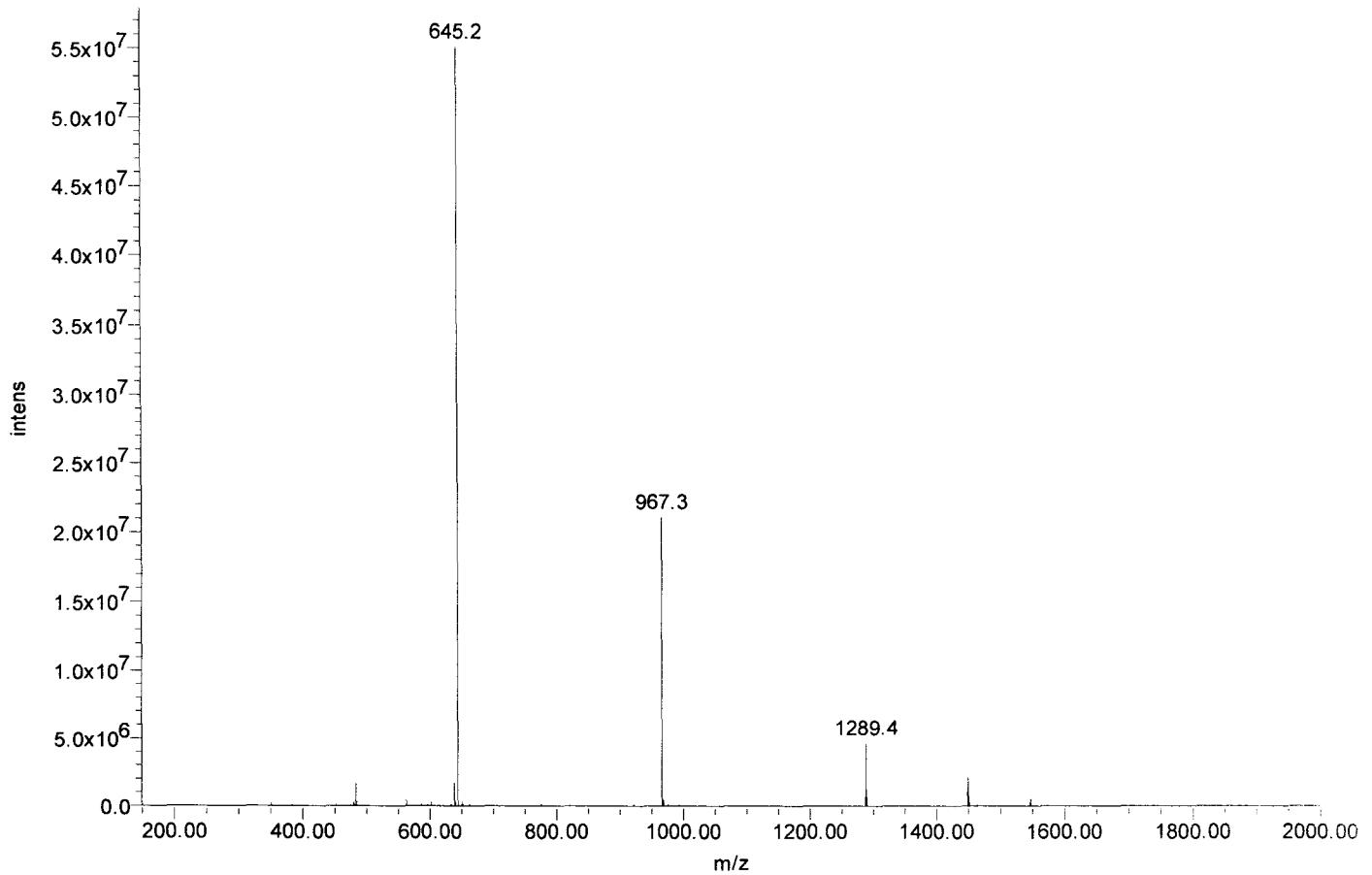


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	9.175	35009	3017
2	96.2	9.338	5380793	608927
3	1.9	9.637	105593	4730
4	1.3	11.072	73732	3257
Sum	100.00		5595127	619930.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344971      **Lot # :** SW05216T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 15:36:01 CST  
Expected MS : MW: 1932.2  
Acq. Method Set : Import  
Processing Method : 344971\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #232  
LKNQIDIREQANSV  
Cat#5941 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344972                   **Lot #:** SW05227T  
**Sequence:** Leu-Lys-Asn-Gln-Ile-Asp-Arg-Ile-Arg-Glu-Gln-Ala-Asn-Ser-Val  
**Molecular Weight:** 1784.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.2%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 78.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05		Glx	3.00	3.00		Lys	1.00	1.03	
Arg	2.00	2.10		Ile	2.00	1.98		Ser	1.00	0.84	
Asx	3.00	3.14		Leu	1.00	1.08		Val	1.00	1.10	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/30/08

Quality Control Department

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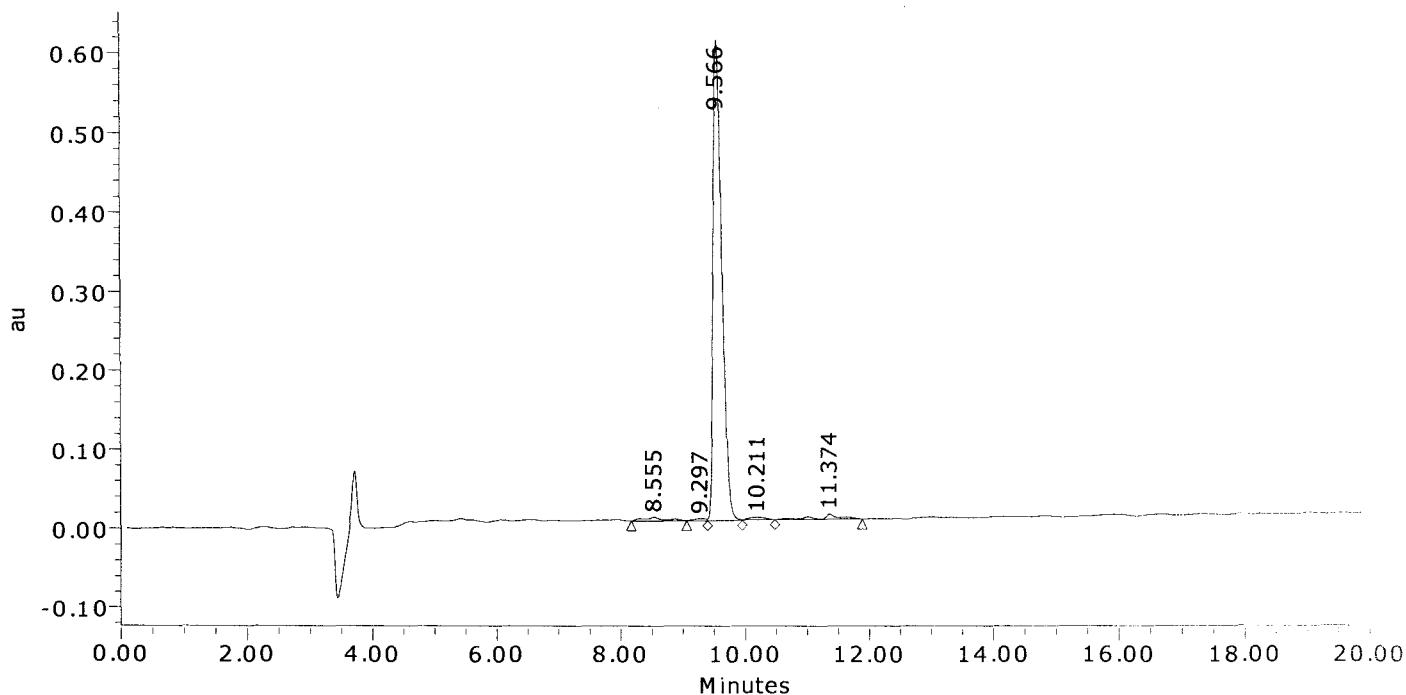
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344972/SW05227T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 9:44:52 CST  
Sample ID: 344972 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344972\_A Final\_PDA  
Date Acquired: 5/28/2008 15:09:50 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 20  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.7	8.555	104539	4584
2	0.5	9.297	29924	2232
3	94.2	9.566	5942080	605374
4	1.0	10.211	63168	3168
5	2.7	11.374	167616	6329
<b>Sum</b>	<b>100.00</b>		<b>6307328</b>	<b>621687.5</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344972**

**Lot # : SW05227T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 17:01:44 CST

Expected MS :

MW: 1784.0

Acq. Method Set :

Import

Processing Method :

344972\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

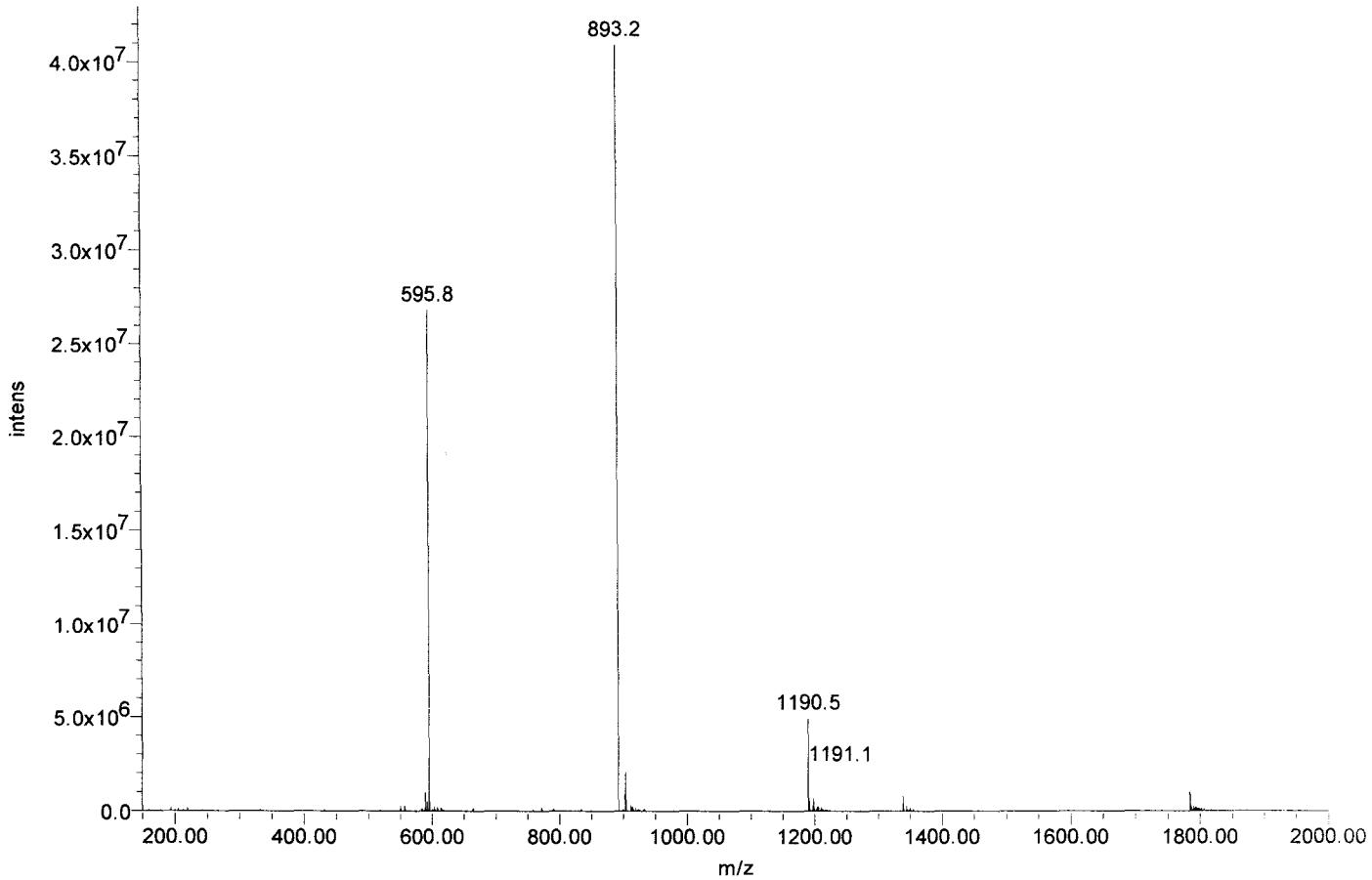
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #233  
IDRIRFQANSVETIV  
Cat#5942 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344973                   **Lot #:** SW05222T

**Sequence:** Ile-Asp-Arg-Ile-Arg-Glu-Gln-Ala-Asn-Ser-Val-Glu-Thr-Ile-Val

**Molecular Weight:** 1743.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 82.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		Glx	3.00	3.38		Thr	1.00	1.03	
Arg	2.00	1.96		Ile	3.00	2.90		Val	2.00	1.96	
Asx	2.00	2.00		Ser	1.00	0.90					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/29/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

### Headquarters

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1-2-1 Kubogaoka

Moriya, Ibaraki 302-0104 Japan

Tel: 81-297-45-6311 Fax: 81-297-45-6353

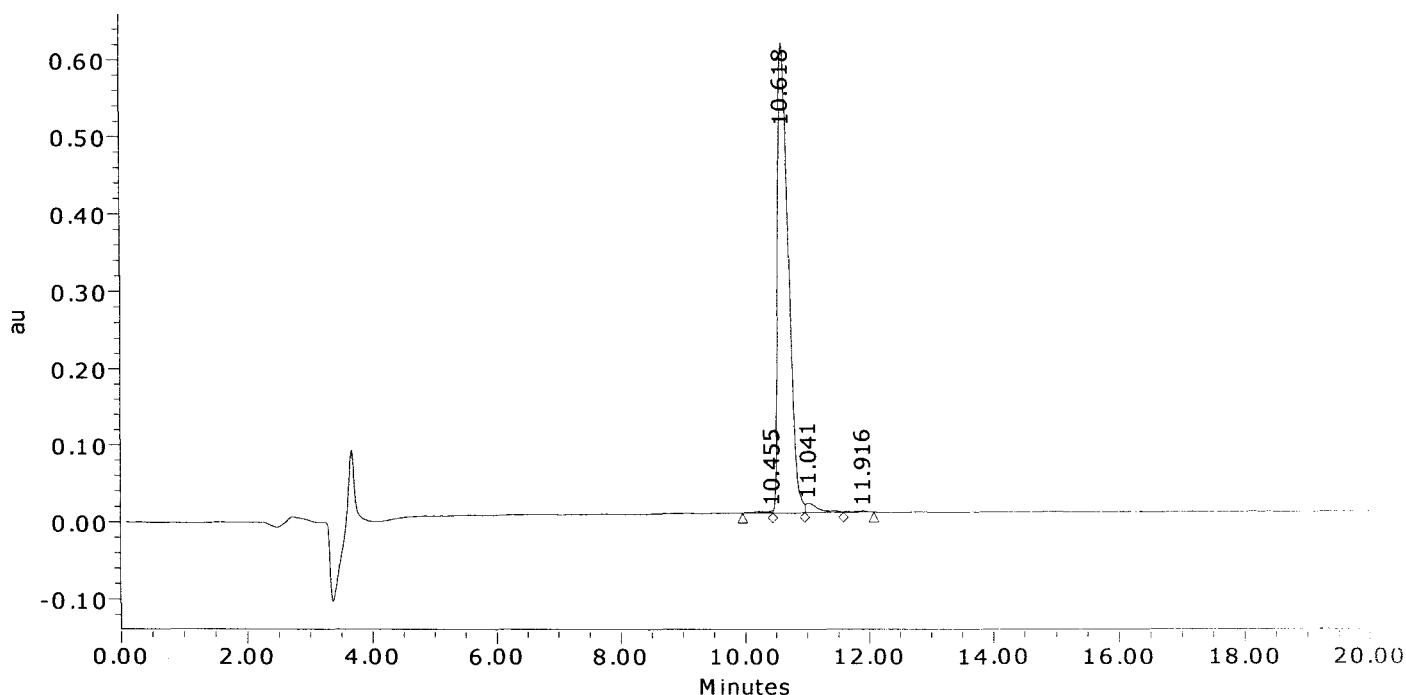
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344973/SW05222T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 9:38:47 CST  
Sample ID: 344973 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344973\_A Final\_PDA  
Date Acquired: 5/27/2008 19:43:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 20  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.5	10.455	38656	2898
2	96.9	10.618	7334976	610042
3	2.2	11.041	169599	11699
4	0.3	11.916	23650	1768
Sum	100.00		7566881	626406.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

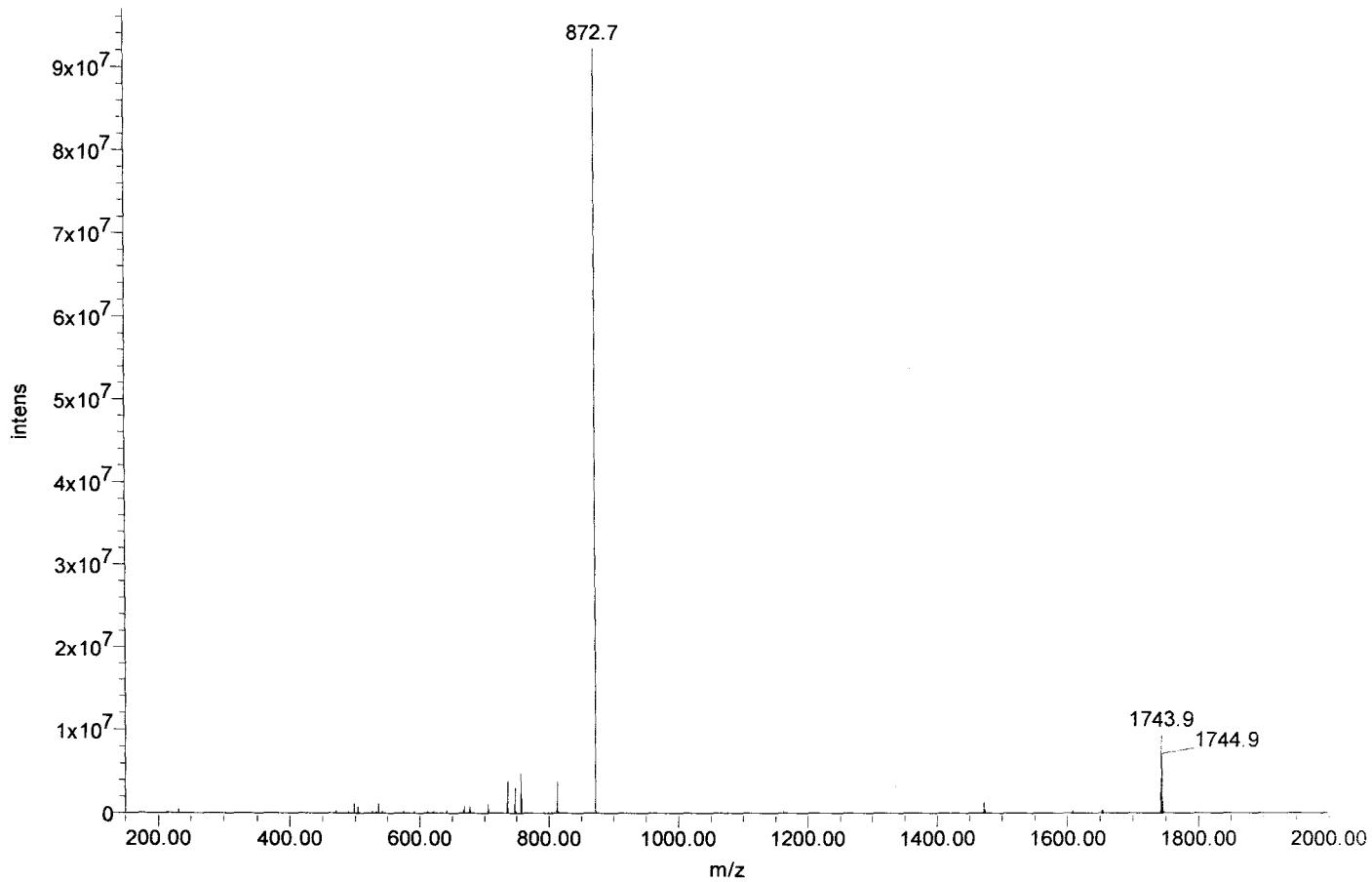
**Sample ID:**

**344973**

**Lot # : SW05222T**

**Chemist : Yan Li**

Date Acquired : 5/27/2008 19:43:26 CST  
Expected MS : MW: 1743.0  
Acq. Method Set : Import  
Processing Method : 344973\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #234  
REQANSVETIVLMAV  
Cat#5943 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344974                   **Lot #:** SW06007T  
**Sequence:** Arg-Glu-Gln-Ala-Asn-Ser-Val-Glu-Thr-Ile-Val-Leu-Met-Ala-Val  
**Molecular Weight:** 1659.9 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 82.5%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 70.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/03/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	2.04		Ile	1.00	0.83		Ser	1.00	0.89	
Arg	1.00	0.90		Leu	1.00	1.07		Thr	1.00	1.01	
Asx	1.00	1.00		Met	1.00	1.04		Val	3.00	2.79	
Glx	3.00	3.21									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/05/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

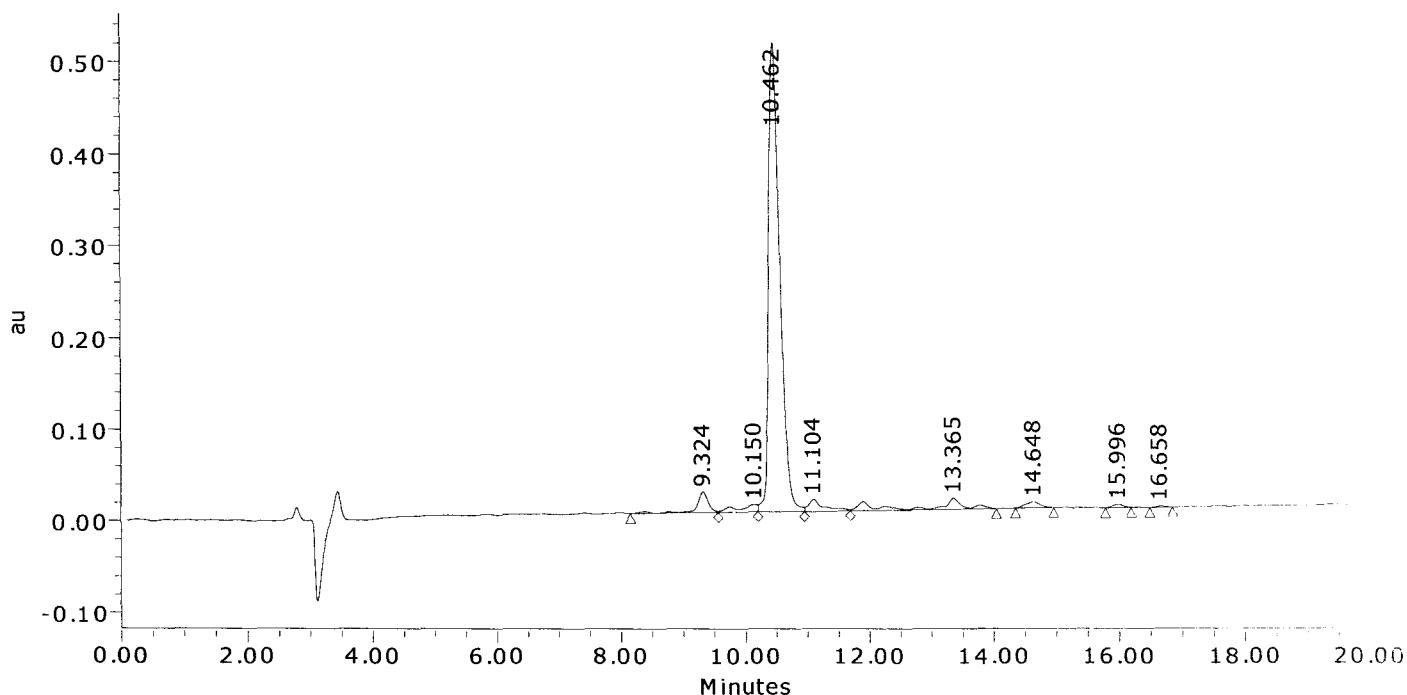
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344974/SW06007T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/3/2008 12:38:10 CST  
Sample ID: 344974 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344974\_A Final\_PDA  
Date Acquired: 6/3/2008 11:03:07 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 29% -49% Buffer B in 20 min.; Inj Vol.: 20  $\mu$ L.  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	4.0	9.324	310428	23037
2	2.4	10.150	188456	8145
3	82.5	10.462	6398707	510487
4	3.1	11.104	237529	13381
5	5.9	13.365	454656	12413
6	1.3	14.648	104292	6594
7	0.5	15.996	41920	3592
8	0.2	16.658	15936	1464
<b>Sum</b>	<b>100.00</b>		<b>7751924</b>	<b>579112.5</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344974

Lot # : SW06007T

Chemist : Yan Li

Date Acquired :

6/3/2008 11:03:07 CST

Expected MS :

MW: 1659.9

Acq. Method Set :

Import

Processing Method :

344974\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

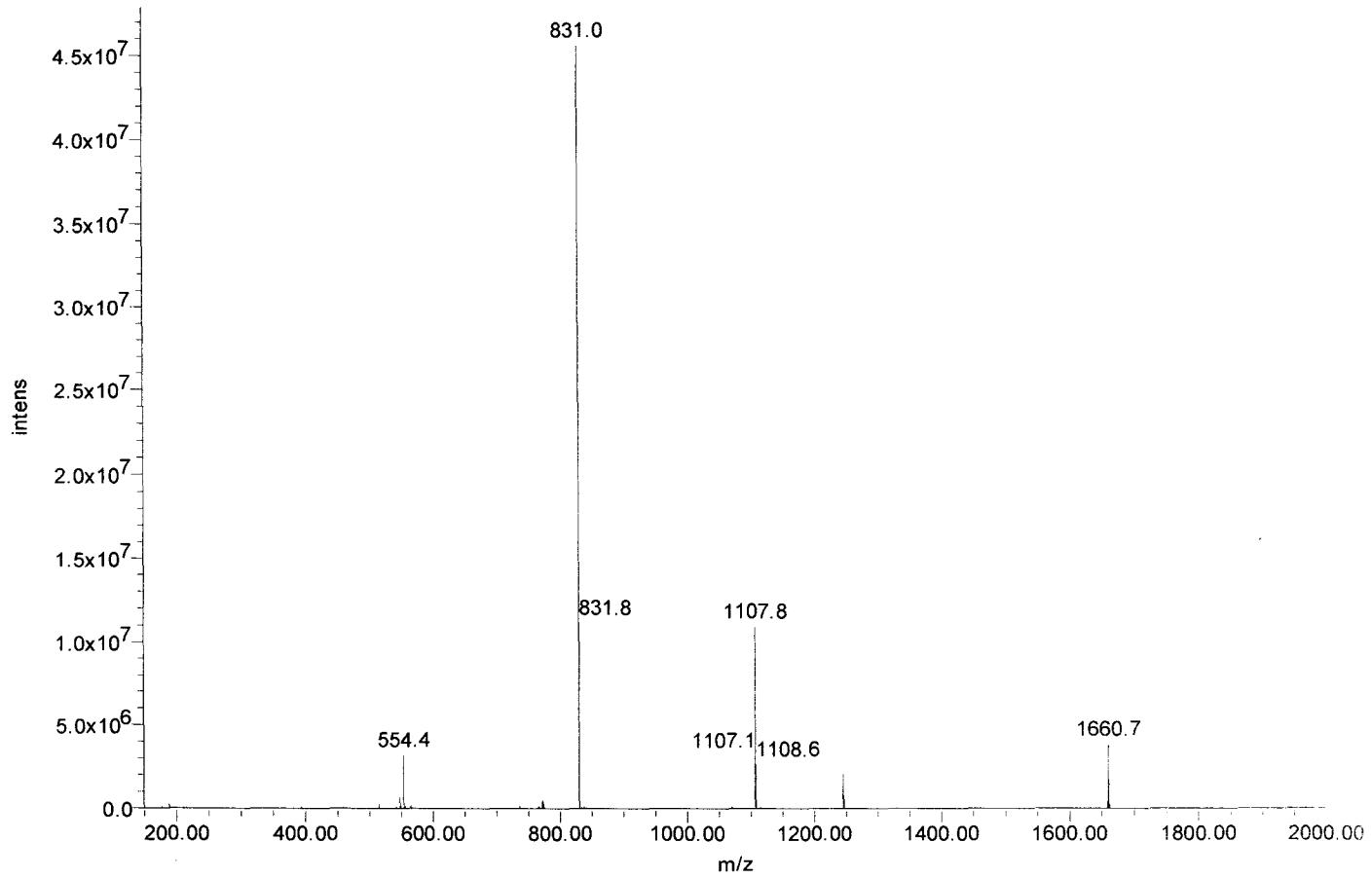
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #235  
NSVETIVLMAVHCMN  
Cat#5944 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344975                   **Lot #:** SW06020T

**Sequence:** Asn-Ser-Val-Glu-Thr-Ile-Val-Leu-Met-Ala-Val-His-Cys-Met-Asn

**Molecular Weight:** 1661.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 84.0%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 40% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 87.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 06/05/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.09		His	1.00	1.01		Ser	1.00	0.89	
Asx	2.00	2.00		Ile	1.00	0.84		Thr	1.00	1.04	
Cys	1.00	0.00	*1	Leu	1.00	1.07		Val	3.00	2.77	
Glx	1.00	1.17		Met	2.00	2.07					

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 06/06/08

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

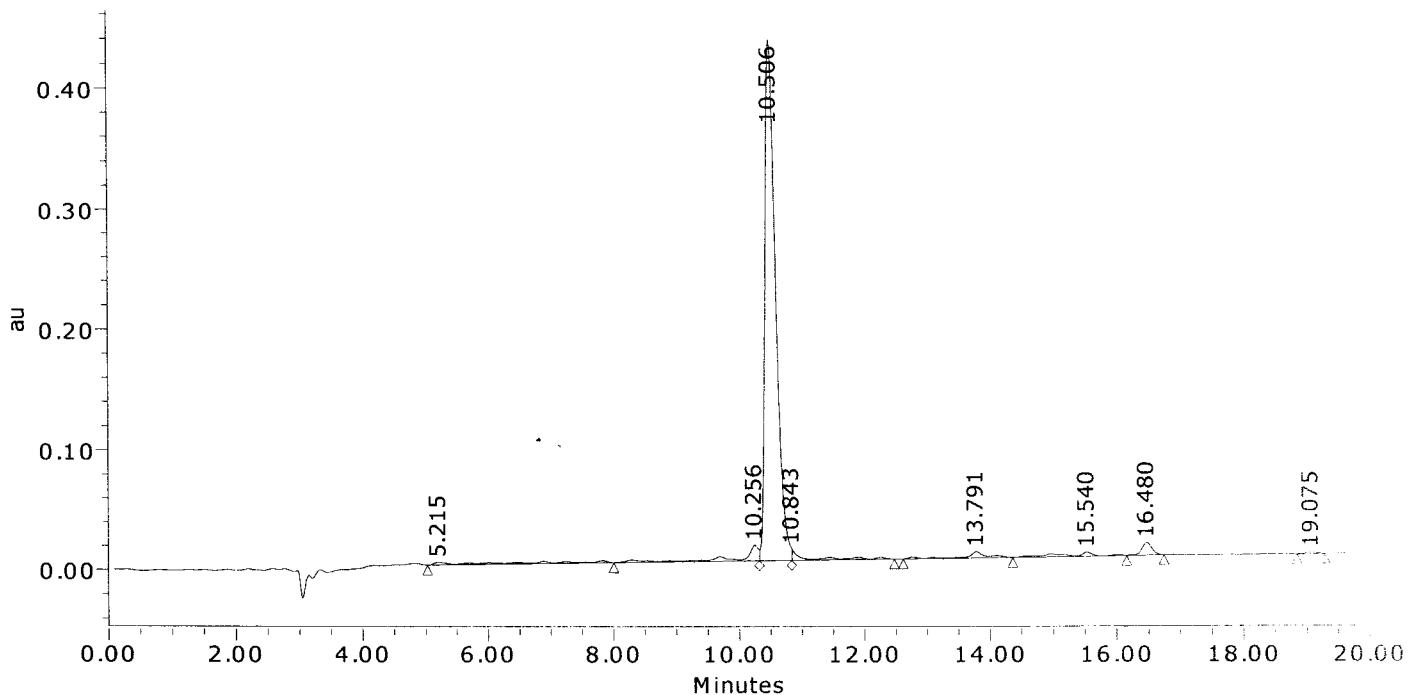
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344975/SW06020T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data
Channel Name:	PDA 215.0 nm
Date Processed:	6/5/2008 11:10:41 CST
Sample ID:	344975
Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000
Processing Method:	344975_A Final_PDA
Date Acquired:	6/5/2008 10:30:35 CST
Run Mode:	Analysis
Acq. Method Set:	Import
Peak Measurement:	Peak Area
Run Time:	25.0 Minutes
Calculation Type:	Percent

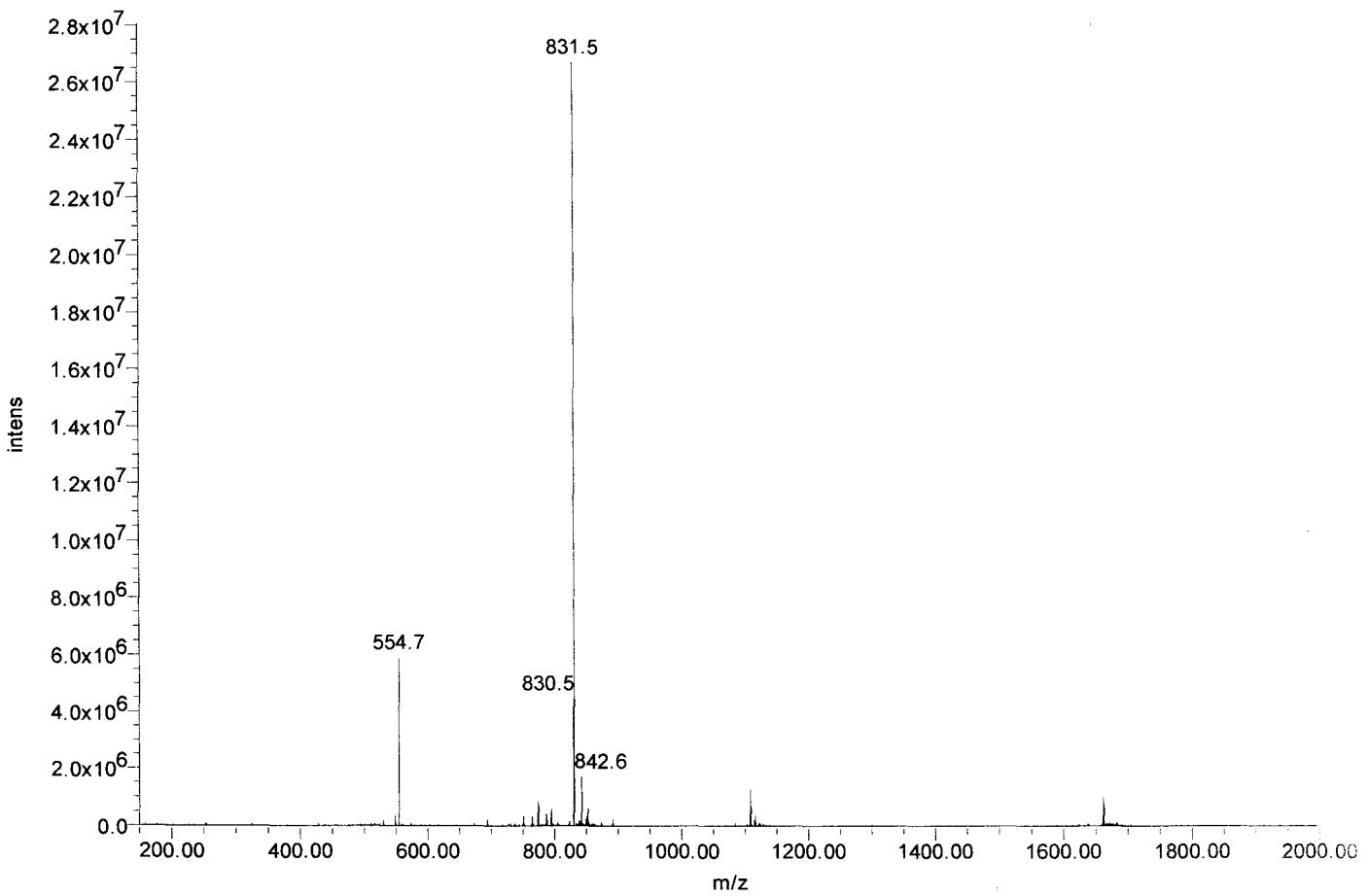
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 35% -55% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	2.9	5.215	176961	2274
2	4.5	10.256	274428	13138
3	84.0	10.506	5077836	431792
4	2.3	10.843	136884	9688
5	2.0	13.791	118678	5274
6	2.0	15.540	121898	3476
7	2.0	16.480	120906	10666
8	0.3	19.075	15414	1267
<b>Sum</b>	<b>100.00</b>		<b>6043005</b>	<b>477575.2</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344975</b>	<b>Lot # :</b> SW06020T	<b>Chemist :</b> Yan Li
Date Acquired :	6/5/2008 11:01:33 CST		
Expected MS :	MW: 1661.0		
Acq. Method Set :	Import		
Processing Method :	344975_A Final_MS		
Data Path :	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
Run Time :	1.0 Minutes		
Flow rate :	1.0 mL/min		
Buffers :	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
Instruments :	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





## Certificate of Analysis

SIVmac239 Pol #236  
ITVLMAVHCMNFKRR  
Cat#5945 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344976                   **Lot #:** SW05224T  
**Sequence:** Thr-Ile-Val-Leu-Met-Ala-Val-His-Cys-Met-Asn-Phe-Lys-Arg-Arg  
**Molecular Weight:** 1819.3 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 94.9%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 76.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.05		His	1.00	1.00		Met	2.00	2.13	
Arg	2.00	2.14		Ile	1.00	0.85		Phe	1.00	1.07	
Asx	1.00	1.05		Leu	1.00	1.10		Thr	1.00	1.09	
Cys	1.00	0.00	*1	Lys	1.00	1.06		Val	2.00	1.80	

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yanz Li Date: 05/29/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

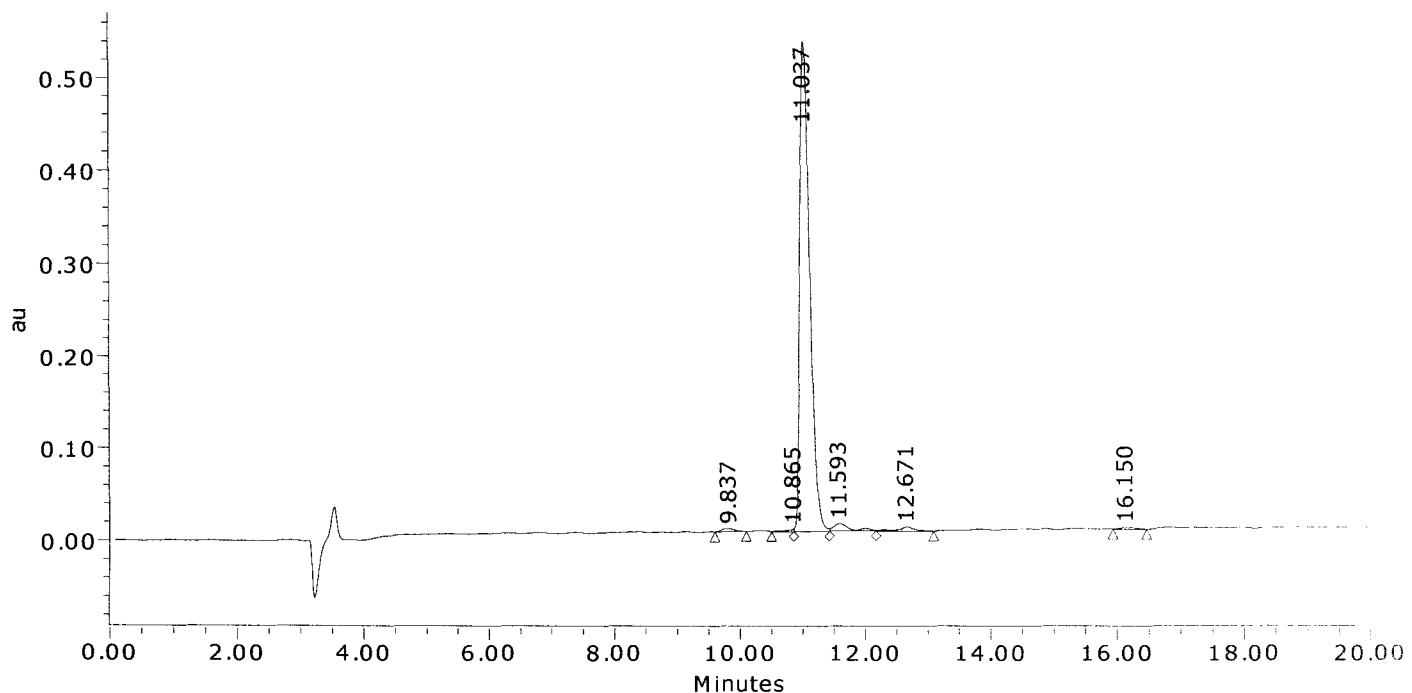
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344976/SW05224T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 13:01:51 CST  
Sample ID: 344976 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344976\_A\_Final\_PDA  
Date Acquired: 5/28/2008 9:57:00 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.7	9.837	43171	2801
2	0.3	10.865	18506	3087
3	94.9	11.037	5885767	530556
4	2.4	11.593	148645	7963
5	1.2	12.671	77323	4562
6	0.5	16.150	30937	2071
Sum	100.00		6204348	551040.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344976**

**Lot # : SW05224T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 17:12:09 CST

Expected MS :

MW: 1819.3

Acq. Method Set :

Import

Processing Method :

344976\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

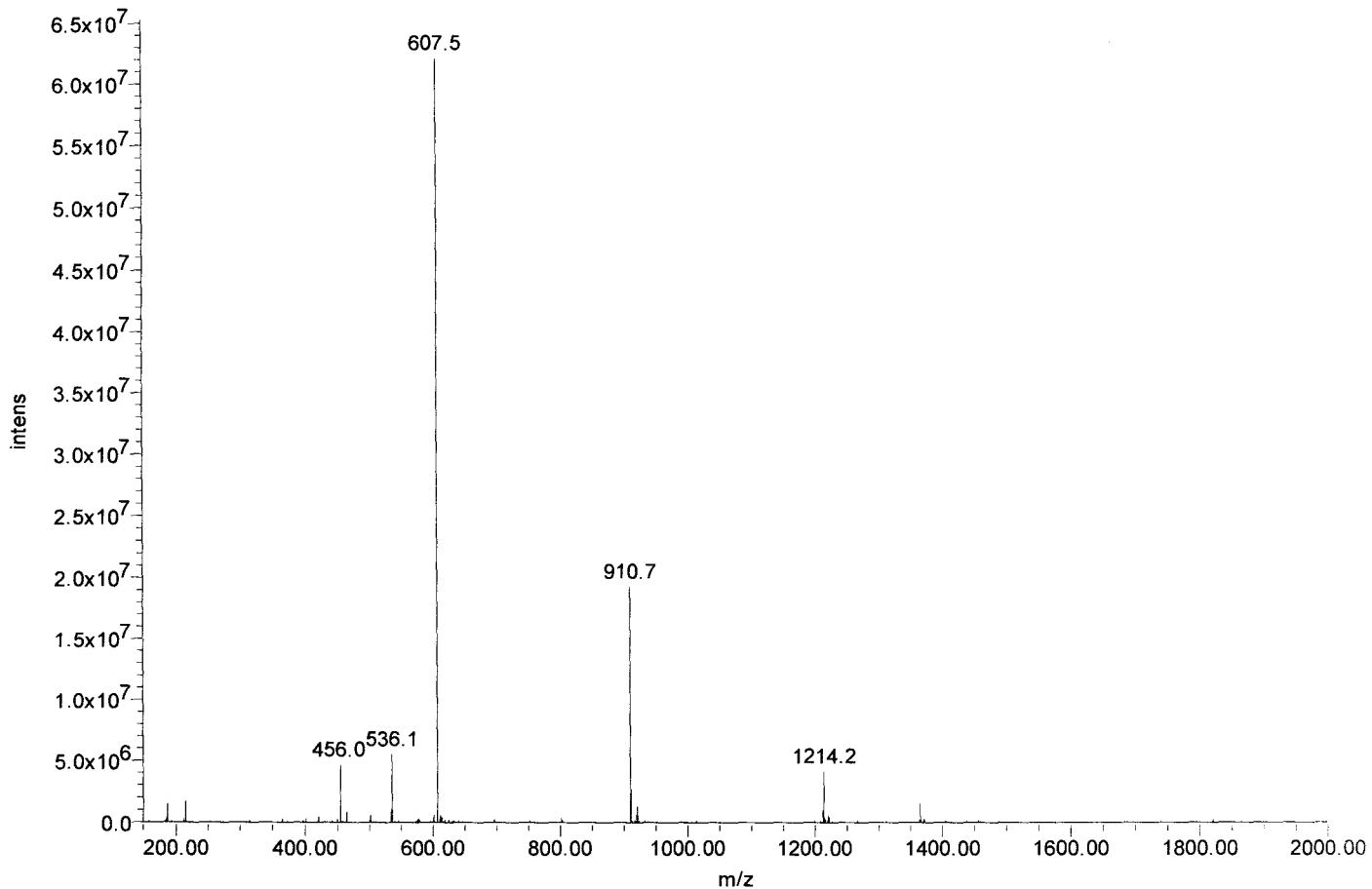
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #237  
MAVHCMNFKRRGGIG  
Cat#5946 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344977                   **Lot #:** SW05230T

**Sequence:** Met-Ala-Val-His-Cys-Met-Asn-Phe-Lys-Arg-Arg-Gly-Ile-Gly

**Molecular Weight:** 1677.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.7%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 61.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.93		Gly	3.00	2.73		Met	2.00	1.79	
Arg	2.00	1.80		His	1.00	0.85		Phe	1.00	0.91	
Asx	1.00	1.00		Ile	1.00	0.89		Val	1.00	0.86	
Cys	1.00	0.00	*1	Lys	1.00	0.89					

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Z Li Date: 05/29/08  
Quality Control Department

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1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

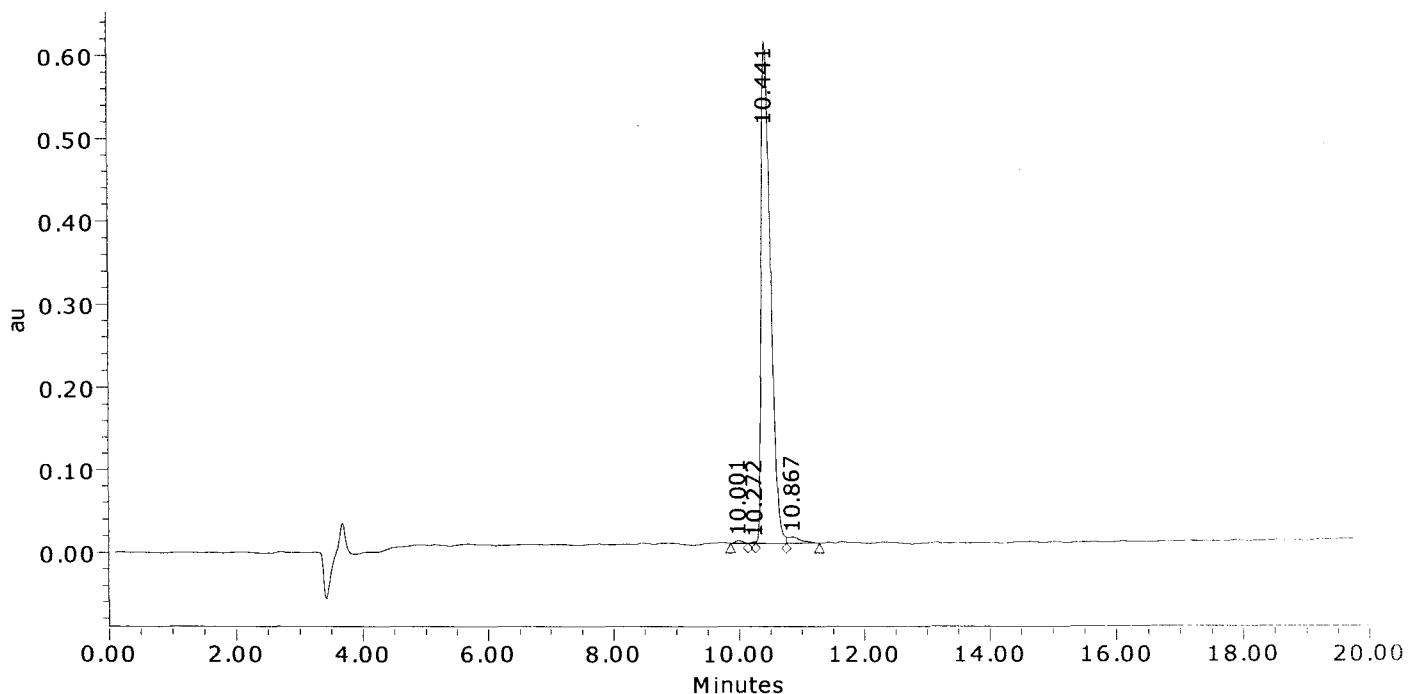
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344977/SW05230T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/28/2008 14:39:31 CST  
Sample ID: 344977 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344977\_A Final\_PDA  
Date Acquired: 5/28/2008 13:54:42 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	10.001	25137	3303
2	0.1	10.272	6240	1815
3	97.7	10.441	6245201	606084
4	1.8	10.867	113520	7364
Sum	100.00		6390098	618566.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

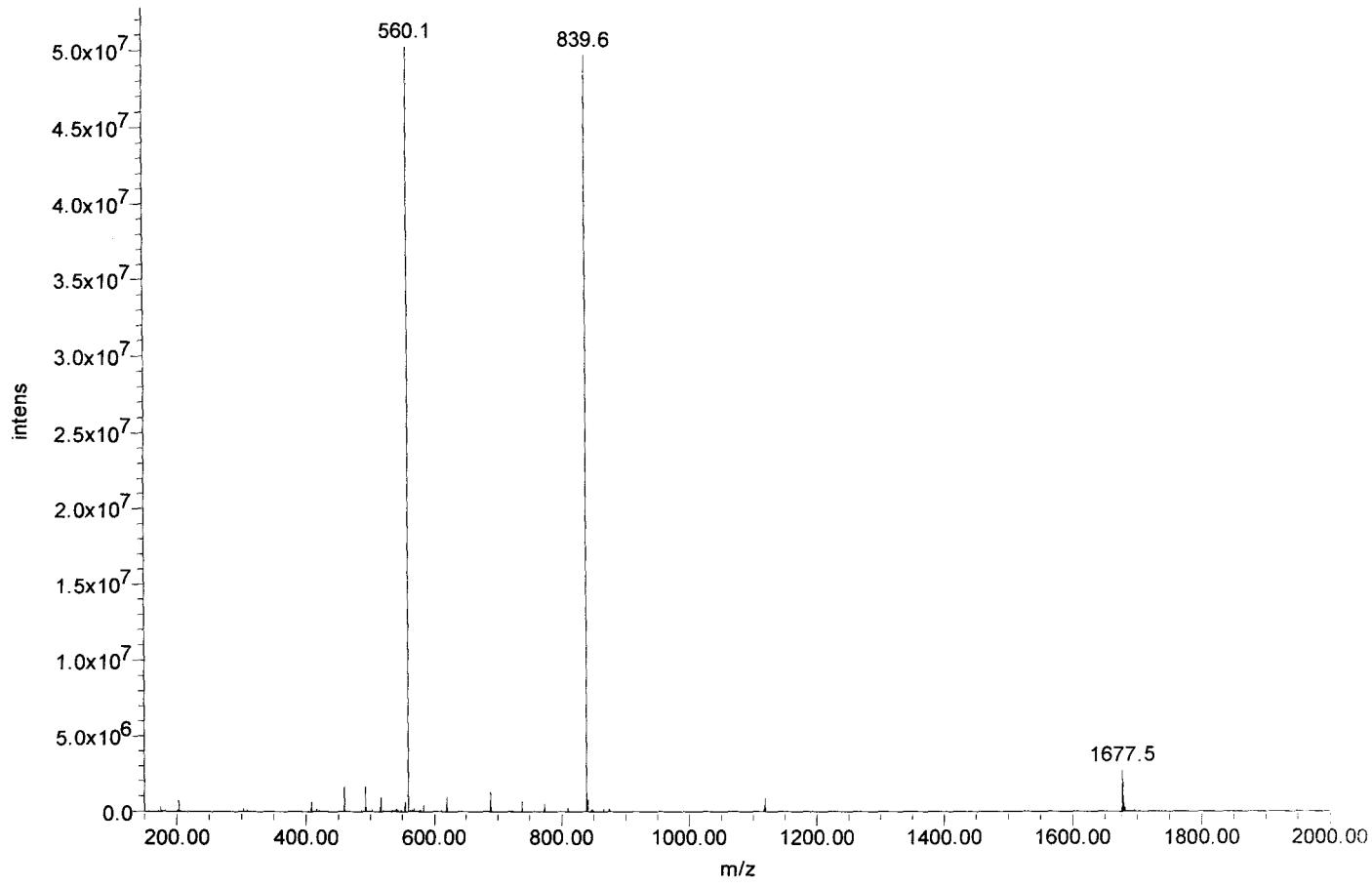
**Sample ID:**

**344977**

**Lot # : SW05230T**

**Chemist : Yan Li**

Date Acquired : 5/28/2008 13:54:42 CST  
Expected MS : MW: 1677.0  
Acq. Method Set : Import  
Processing Method : 344977\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #238**  
CMNFKRRGGIGDMTP  
Cat#5947 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00	Ile	1.00	1.08	Phe	1.00	1.00
Asx	2.00	1.99	Lys	1.00	0.99	Pro	1.00	1.06
Cys	1.00	0.00 *1	Met	2.00	2.02	Thr	1.00	0.93
Gly	3.00	3.10						

\*1 Cys was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 06/02/08  
**Quality Control Department**

Quality Control Department

# AMERICAN PEPTIDE COMPANY, INC.

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T: 408-730-7001 F: 408-730-7002

1271 Avenida Chelsea  
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Tel: 760-527-2222 Fax: 760-527-2216

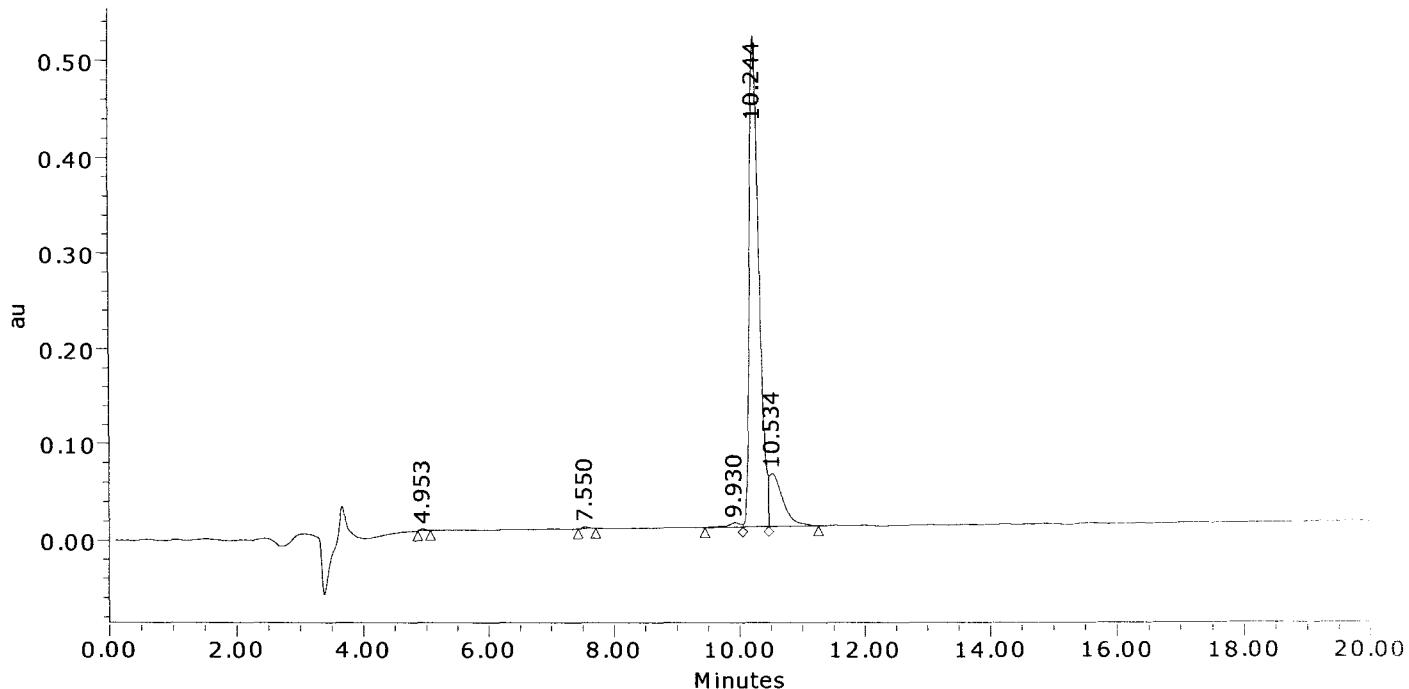
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344978/SW05237T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/29/2008 11:02:43 CST  
Sample ID: 344978 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344978\_A Final\_PDA  
Date Acquired: 5/28/2008 17:34:42 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

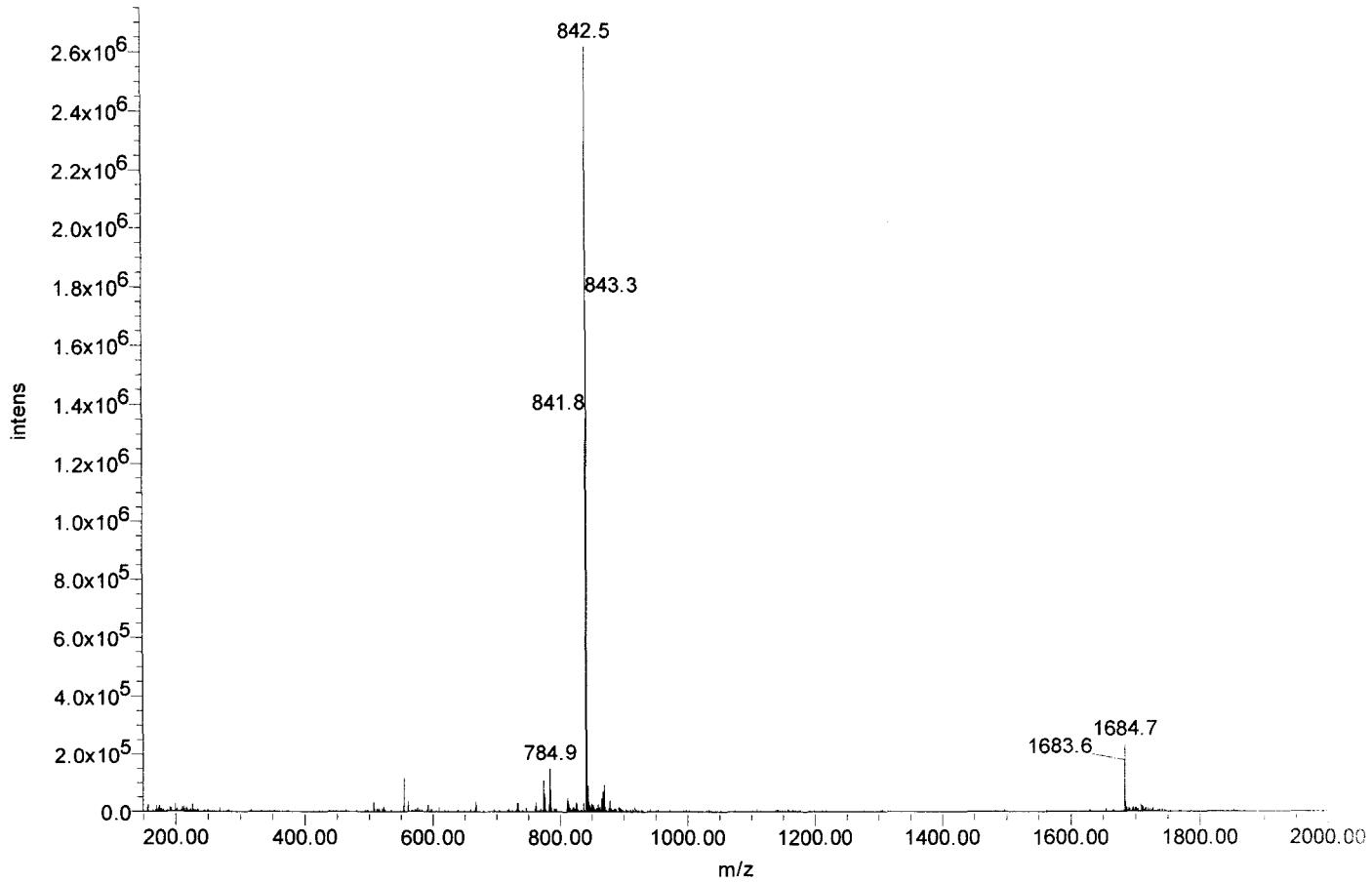
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 18% -38% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.2	4.953	10833	1771
2	0.2	7.550	12844	1690
3	1.1	9.930	68117	4698
4	85.2	10.244	5380919	510380
5	13.3	10.534	840553	54760
Sum	100.00		6313267	573298.6

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344978</b>	<b>Lot # :</b> SW05237T	<b>Chemist :</b> Yan Li
<b>Date Acquired :</b>	5/28/2008 17:34:42 CST		
<b>Expected MS :</b>	MW: 1683.0		
<b>Acq. Method Set :</b>	Import		
<b>Processing Method :</b>	344978_A Final_MS		
<b>Data Path :</b>	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
<b>Run Time :</b>	25.0 Minutes		
<b>Flow rate :</b>	1.0 mL/min		
<b>Buffers :</b>	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
<b>Instruments :</b>	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





## Certificate of Analysis

SIVmac239 Pol #239  
KRRGGIGDMTPAERI.  
Cat#5948 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344979                   **Lot #:** SW05218T

**Sequence:** Lys-Arg-Arg-Gly-Gly-Ile-Gly-Asp-Met-Thr-Pro-Ala-Glu-Arg-Leu

**Molecular Weight:** 1656.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 91.7%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.6%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/27/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Gly	3.00	2.89		Met	1.00	0.98	
Arg	3.00	2.91		Ile	1.00	0.92		Pro	1.00	1.00	
Asx	1.00	1.00		Leu	1.00	1.02		Thr	1.00	1.01	
Glx	1.00	1.14		Lys	1.00	0.97					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/29/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

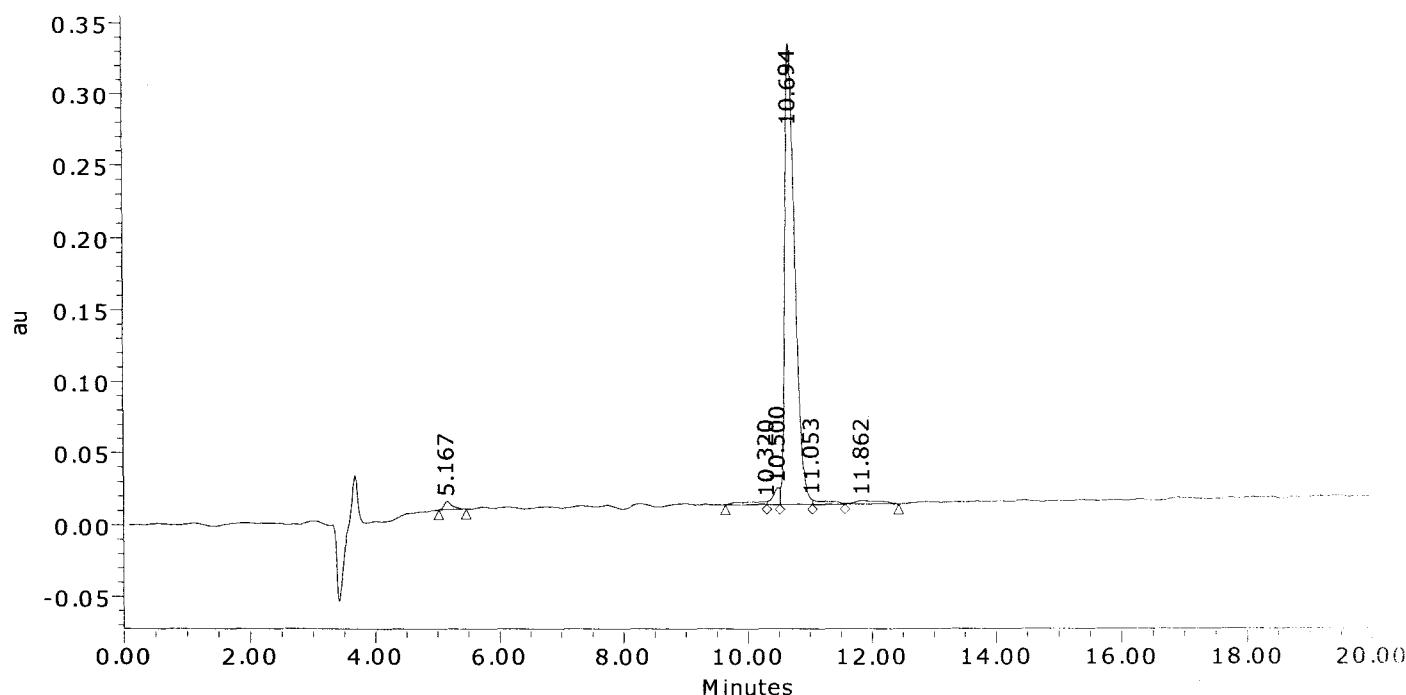
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344979/SW05218T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 17:07:24 CST  
Sample ID: 344979 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344979\_A Final\_PDA  
Date Acquired: 5/27/2008 16:15:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.4	5.167	56652	5828
2	1.6	10.320	61915	1971
3	2.2	10.500	84874	11466
4	91.7	10.694	3591426	321139
5	1.3	11.053	51385	3250
6	1.8	11.862	69215	2334
Sum	100.00		3915466	345987.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

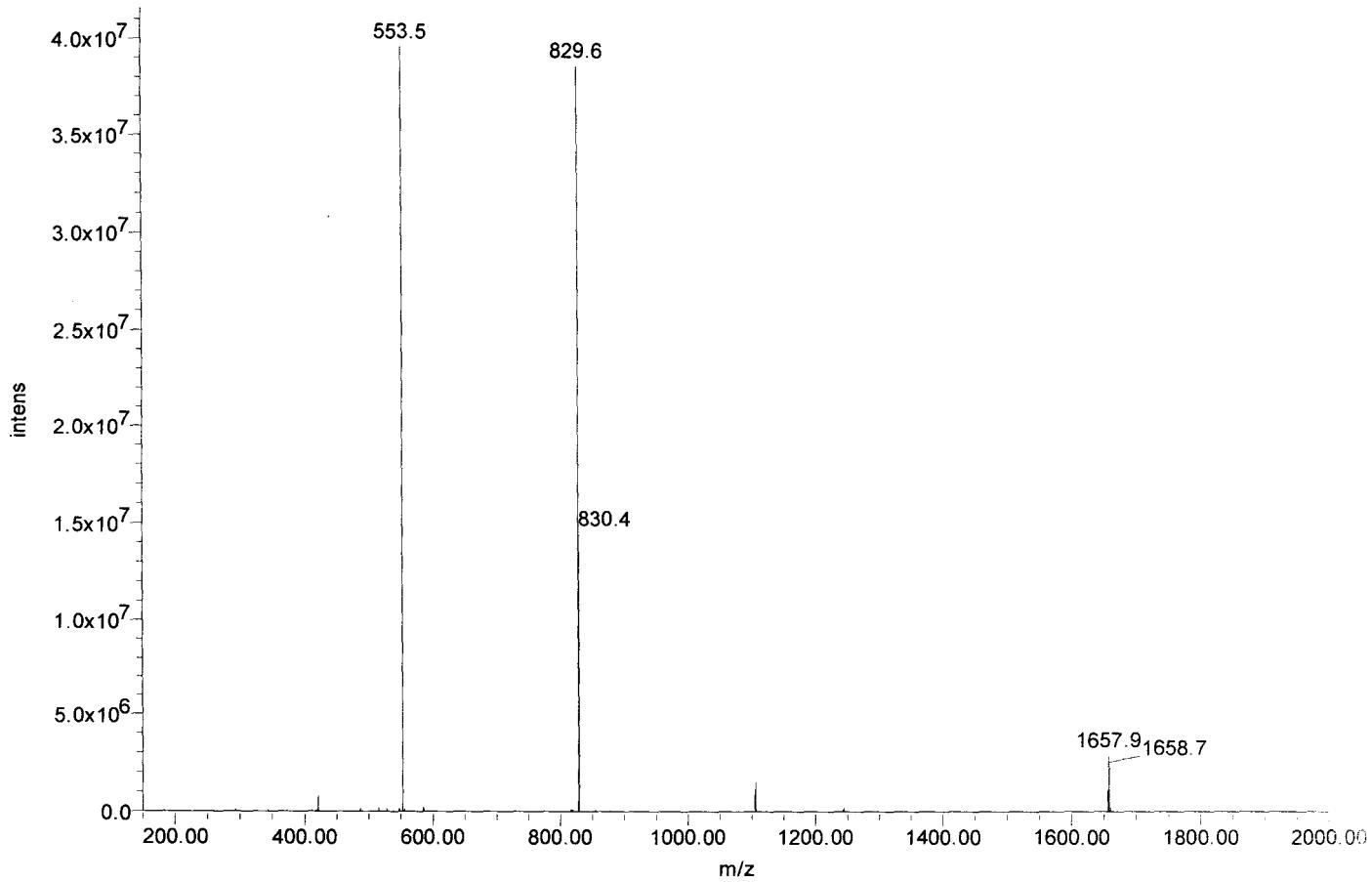
**Sample ID:**

**344979**

**Lot # : SW05218T**

**Chemist : Yan Li**

Date Acquired : 5/27/2008 16:15:36 CST  
Expected MS : MW: 1656.9  
Acq. Method Set : Import  
Processing Method : 344979\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #240  
GIGDMTPAERLINMI  
Cat#5949 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344980                   **Lot #:** SW05187T

**Sequence:** Gly-Ile-Gly-Asp-Met-Thr-Pro-Ala-Glu-Arg-Leu-Ile-Asn-Met-Ile

**Molecular Weight:** 1631.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 94.9%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 85.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Gly	2.00	1.92		Met	2.00	1.92	
Arg	1.00	0.99		Ile	3.00	2.79		Pro	1.00	1.01	
Asx	2.00	1.98		Leu	1.00	1.02		Thr	1.00	1.01	
Glx	1.00	1.14									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan Li*

Date: 05/28/08

Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

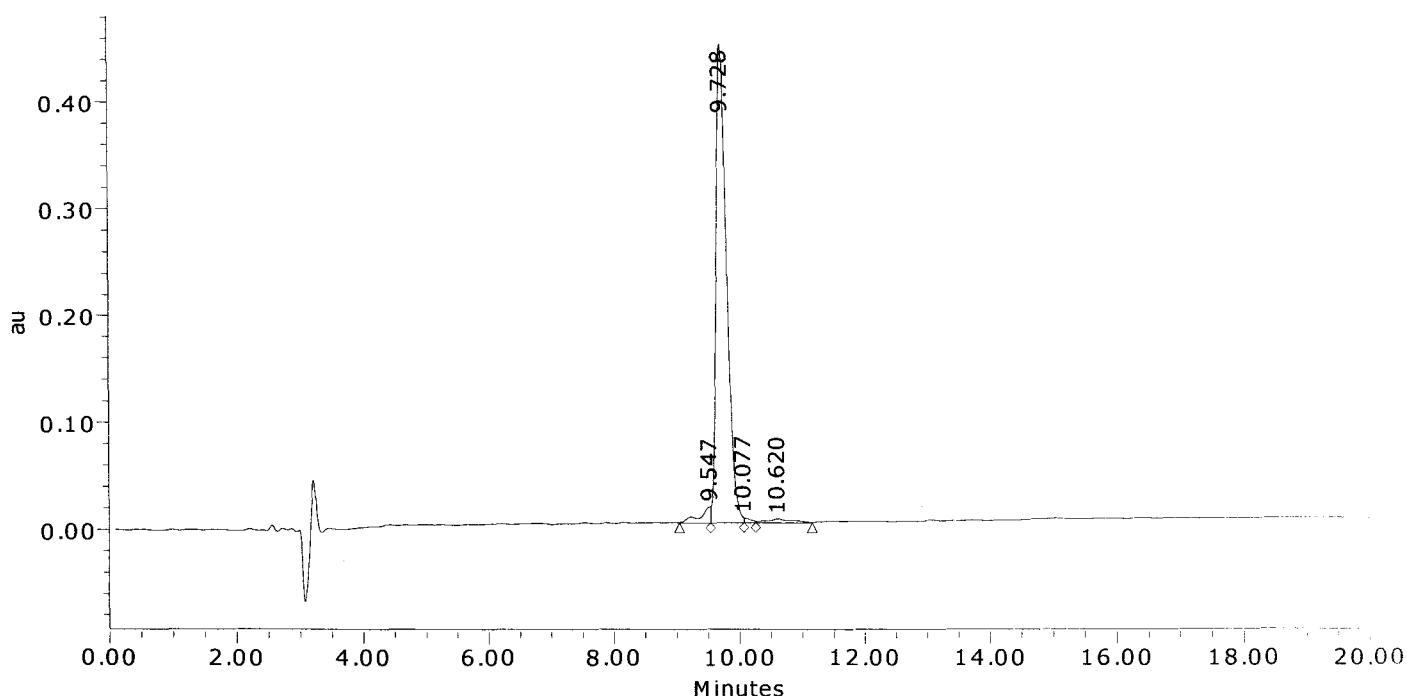
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344980/SW05187T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 9:16:41 CST  
Sample ID: 344980 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344980\_A Final\_PDA  
Date Acquired: 5/26/2008 9:23:03 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 32% -52% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li; Column Temp.: 45C



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	3.1	9.547	167293	14904
2	94.9	9.728	5203653	447762
3	0.5	10.077	28735	4160
4	1.5	10.620	82563	3283
Sum	100.00		5482243	470109.5

**American Peptide Company, Inc.**  
**MS Analysis Report**

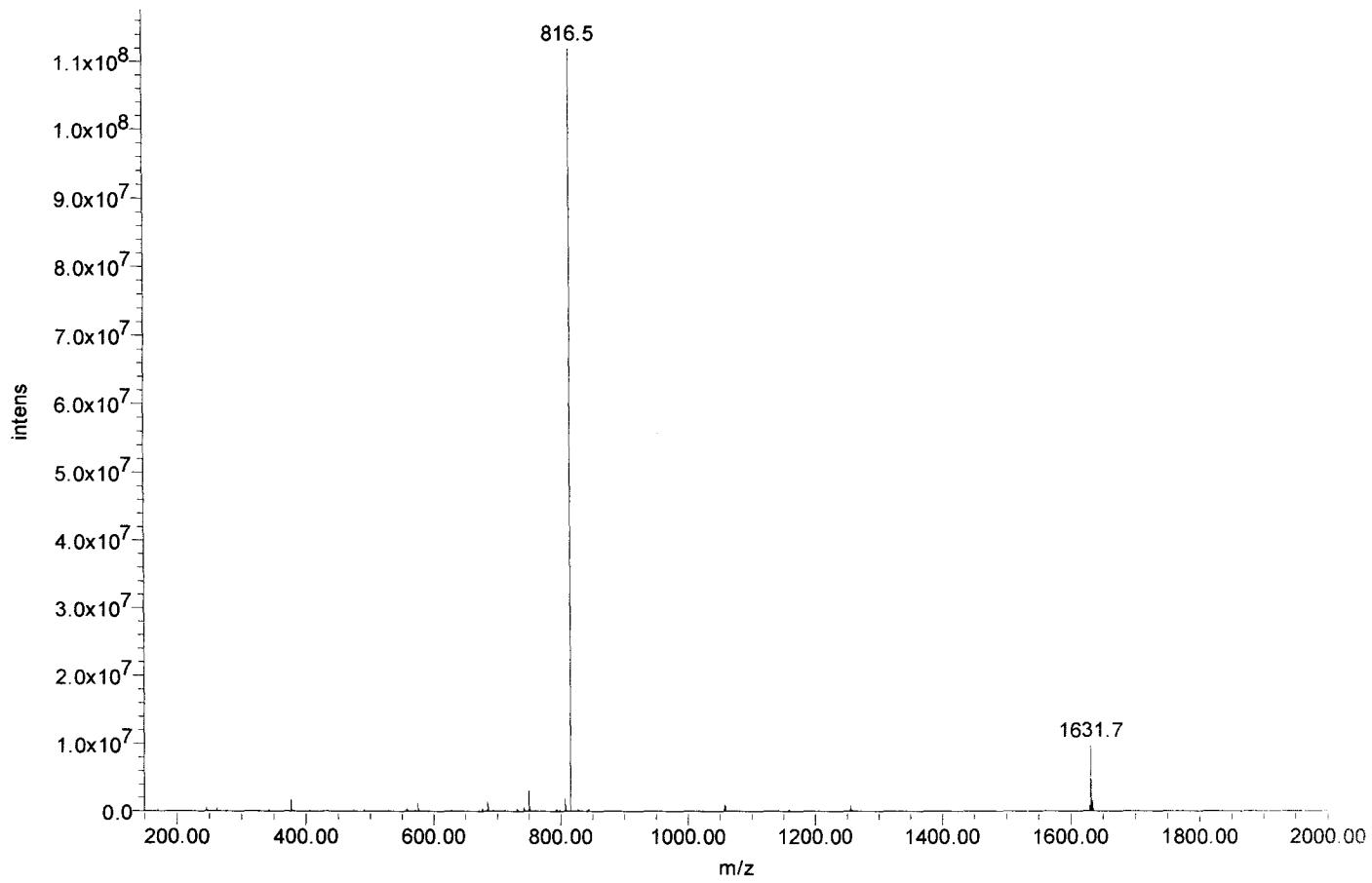
**Sample ID:**

**344980**

**Lot # : SW05187T**

**Chemist : Yan Li**

Date Acquired : 5/26/2008 9:23:03 CST  
Expected MS : MW: 1631.0  
Acq. Method Set : Import  
Processing Method : 344980\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

STVmac239 Pol #241  
MTPAERLJNMITIEQ  
Cat#5950 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344981                   **Lot #:** SW06013T  
**Sequence:** Met-Thr-Pro-Ala-Glu-Arg-Leu-Ile-Asn-Met-Ile-Thr-Thr-Glu-Gln  
**Molecular Weight:** 1748.1 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 30% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 75.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 06/03/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Glx	3.00	3.36		Met	2.00	1.97	
Arg	1.00	1.00		Ile	2.00	1.89		Pro	1.00	0.89	
Asx	1.00	1.02		Leu	1.00	1.03		Thr	3.00	2.95	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Yanz Li

Date: 06/05/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

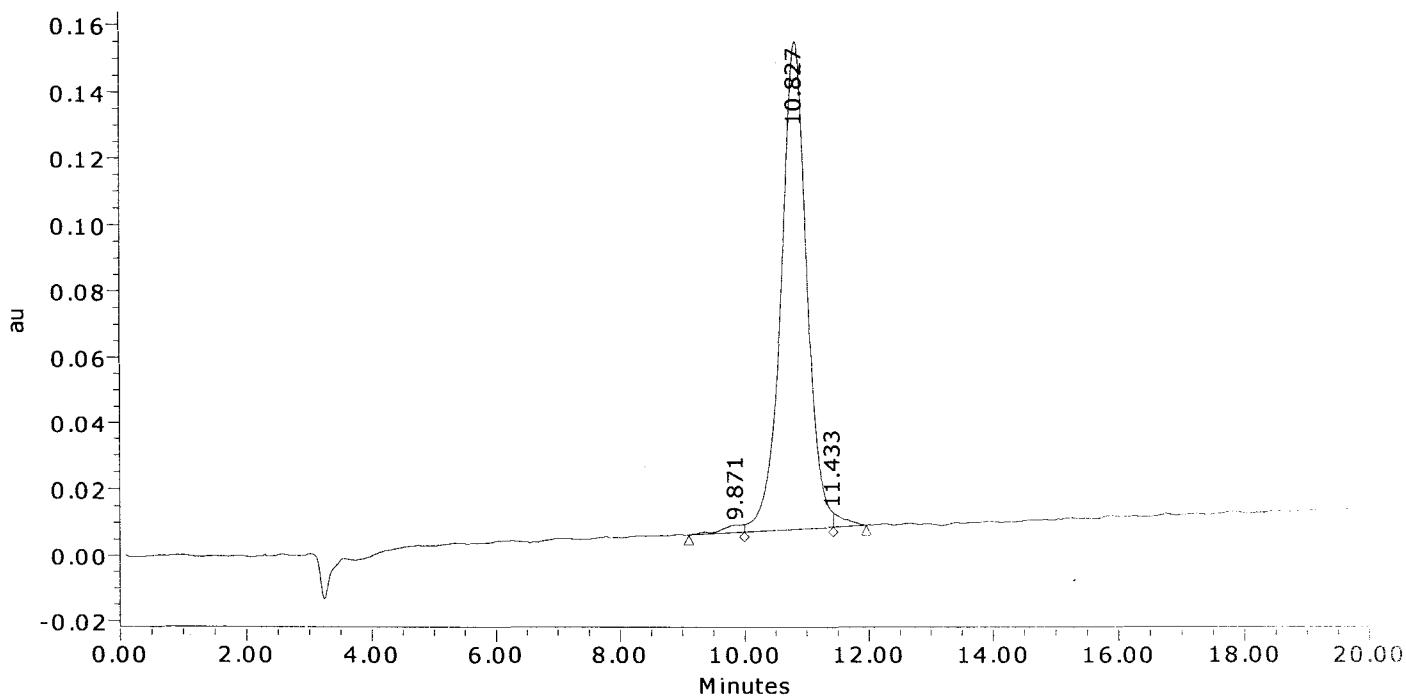
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344981/SW06013T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data
Channel Name:	PDA 215.0 nm
Date Processed:	6/4/2008 13:45:21 CST
Sample ID:	344981
Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000
Processing Method:	344981_A Final_PDA
Date Acquired:	6/4/2008 13:04:02 CST
Run Mode:	Analysis
Acq. Method Set:	Import
Peak Measurement:	Peak Area
Run Time:	25.0 Minutes
Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: PLRP-S, 4.6 x 250 mm, 8 micron; Gradient (Linear): 25% -45% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

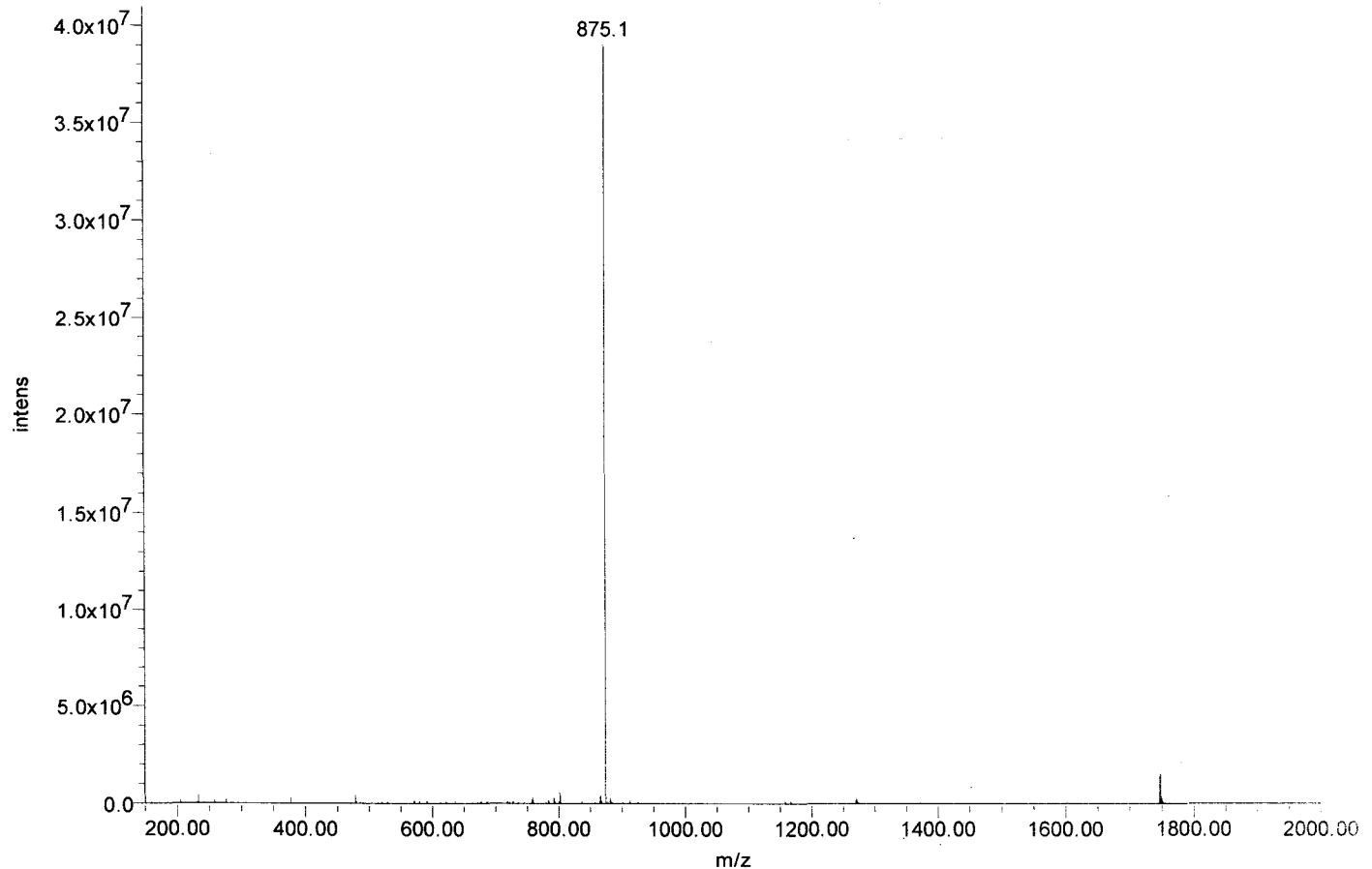


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.3	9.871	57471	2260
2	97.4	10.827	4235849	147193
3	1.3	11.433	56670	4321
Sum	100.00		4349990	153773.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344981      **Lot # :** SW06013T      **Chemist :** Yan Li

Date Acquired : 6/4/2008 13:04:02 CST  
Expected MS : MW: 1748.1  
Acq. Method Set : Import  
Processing Method : 344981\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #242  
ERLINMITTEQFIFQF  
Cat#5951 Lot#/080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344982                   **Lot #:** SW06009T

**Sequence:** Glu-Arg-Leu-Ile-Asn-Met-Ile-Thr-Thr-Glu-Gln-Glu-Ile-Gln-Phe

**Molecular Weight:** 1865.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 86.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 0.02% Ammonia and 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 71.3%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 06/03/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.96		Ile	3.00	2.73		Phe	1.00	0.98	
Asx	1.00	0.93		Leu	1.00	1.00		Thr	2.00	1.91	
Glx	5.00	5.34		Met	1.00	0.94					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 06/05/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

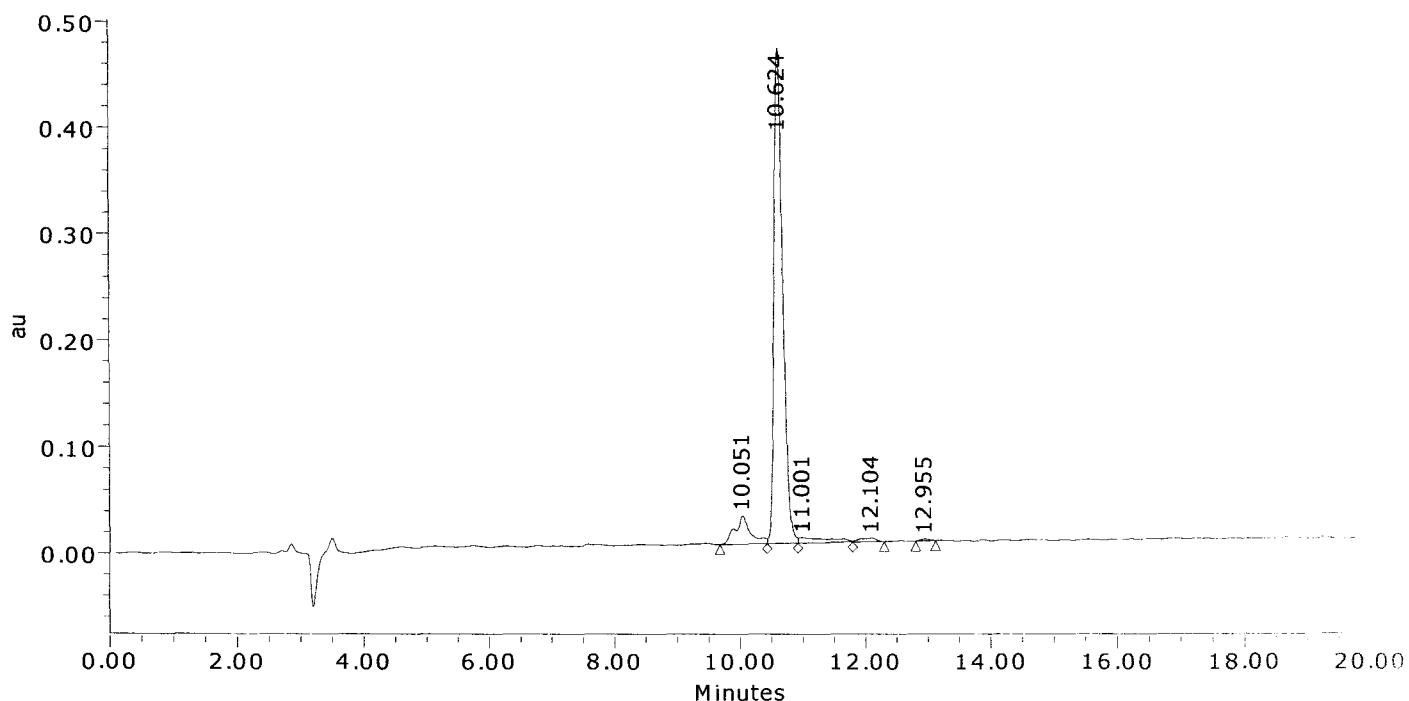
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
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**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344982/SW06009T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	6/3/2008 13:28:12 CST
Sample ID:	344982	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344982_A Final_PDA
Date Acquired:	6/3/2008 12:43:57 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 26% -46% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	8.7	10.051	455959	26686
2	86.3	10.624	4514199	465505
3	3.4	11.001	178427	5075
4	1.2	12.104	63791	3467
5	0.3	12.955	16188	1723
Sum	100.00		5228564	502456.7

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344982

Lot # : SW06009T

Chemist : Yan Li

Date Acquired :

6/3/2008 12:43:57 CST

Expected MS :

MW: 1865.2

Acq. Method Set :

Import

Processing Method :

344982\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

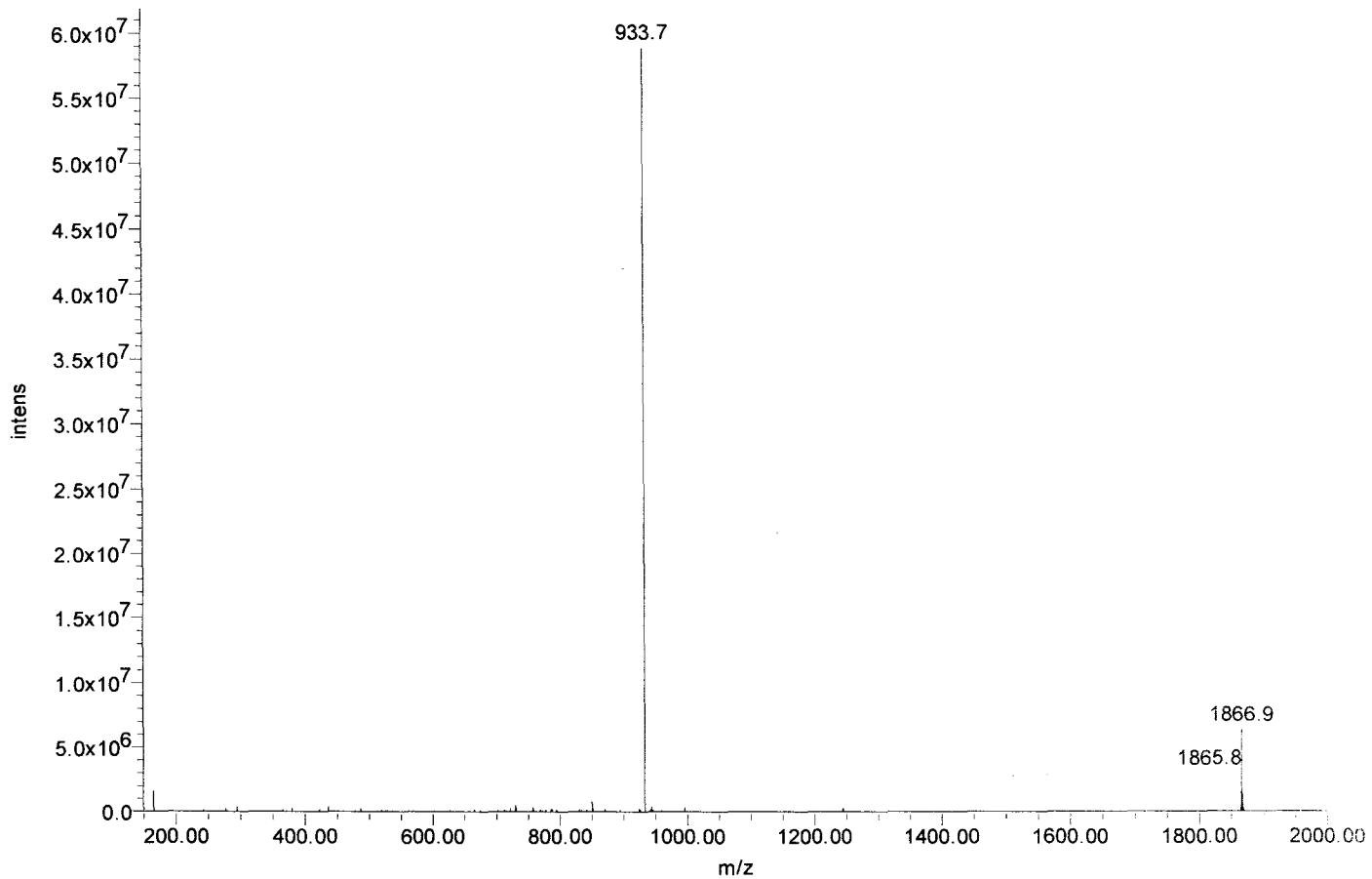
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #243  
NMITTEQEIQFQQSK  
Cat#5952 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344983                   **Lot #:** SW05194T

**Sequence:** Asn-Met-Ile-Thr-Thr-Glu-Gln-Glu-Ile-Gln-Phe-Gln-Gln-Ser-Lys

**Molecular Weight:** 1825.0 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 87.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 20% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 84.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Lys	1.00	1.01		Ser	1.00	0.92	
Glx	6.00	6.74		Met	1.00	1.04		Thr	2.00	1.91	
Ile	2.00	2.02		Phe	1.00	1.03					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

Date: 05/29/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

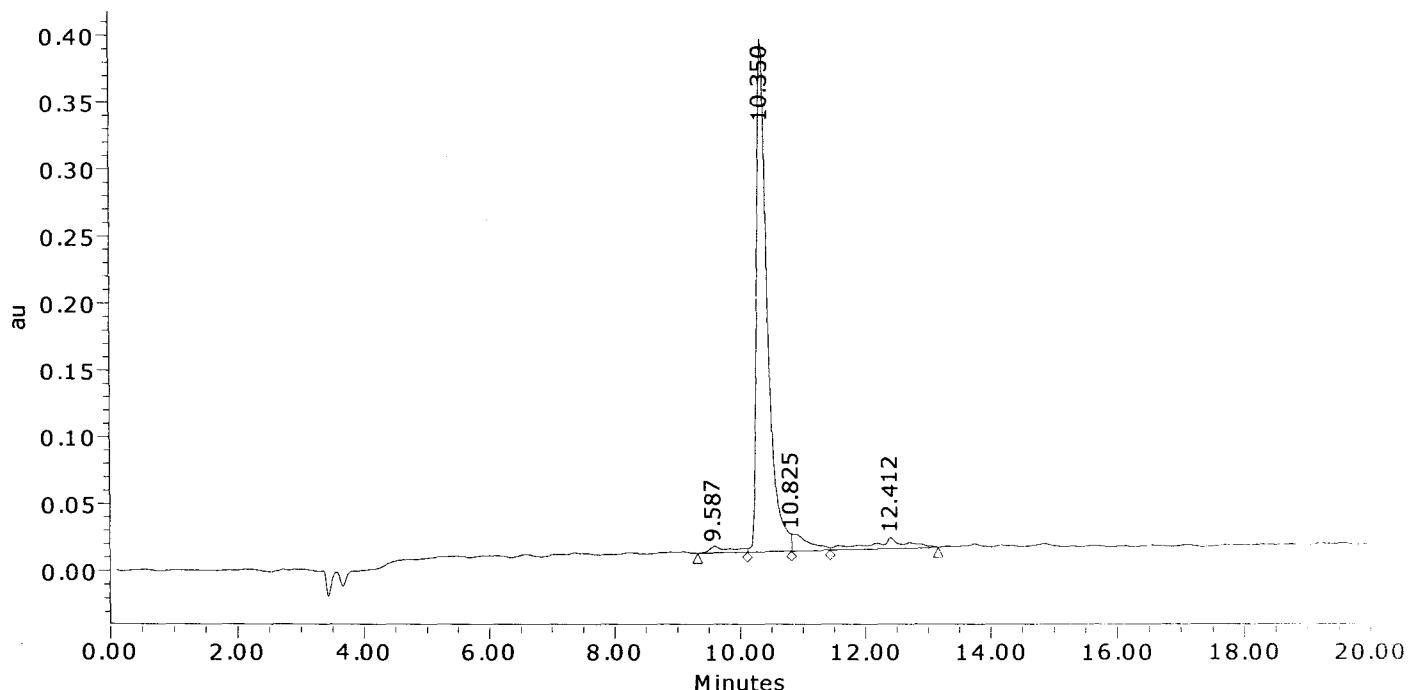
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344983/SW05194T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 10:24:28 CST  
Sample ID: 344983 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344983\_A Final\_PDA  
Date Acquired: 5/26/2008 12:13:02 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	2.2	9.587	114442	4745
2	87.2	10.350	4595846	383066
3	4.6	10.825	242251	12642
4	6.0	12.412	315239	8041
<b>Sum</b>	<b>100.00</b>		<b>5267778</b>	<b>408494.7</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344983**

**Lot # : SW05194T**

**Chemist : Yan Li**

Date Acquired :

5/26/2008 12:13:02 CST

Expected MS :

MW: 1825.0

Acq. Method Set :

Import

Processing Method :

344983\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

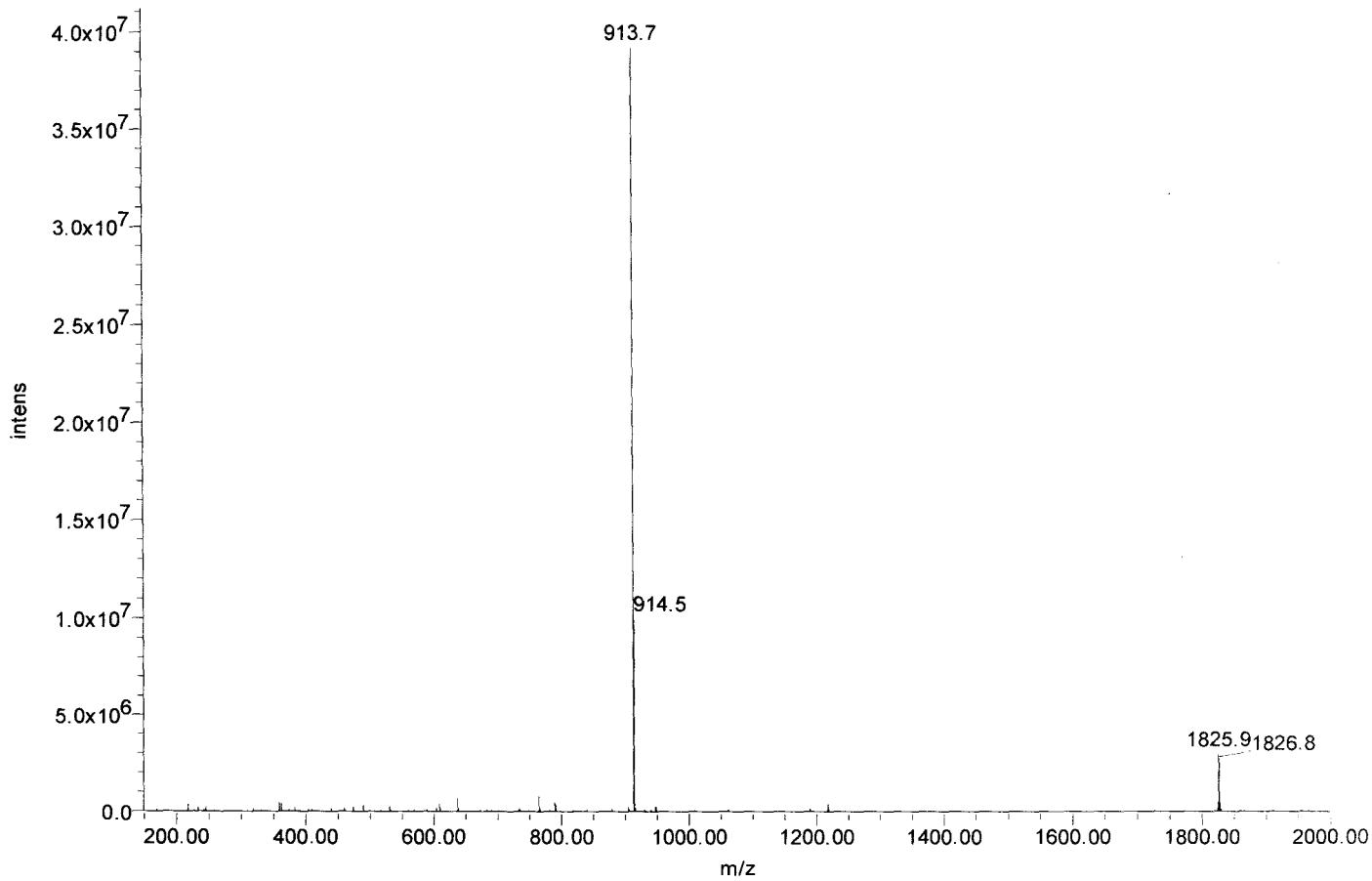
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #244  
TEQEIQFQQSKNSKF  
Cat#5953 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344984                   **Lot #:** SW05205T  
**Sequence:** Thr-Glu-Gln-Glu-Ile-Gln-Phe-Gln-Gln-Ser-Lys-Asn-Ser-Lys-Phe  
**Molecular Weight:** 1842.0 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.7%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	1.00	1.00		Lys	2.00	1.98		Ser	2.00	1.71	
Glx	6.00	6.59		Phe	2.00	1.96		Thr	1.00	0.97	
Ile	1.00	1.11									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/28/08  
Quality Control Department

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777 E. Evelyn Avenue  
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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

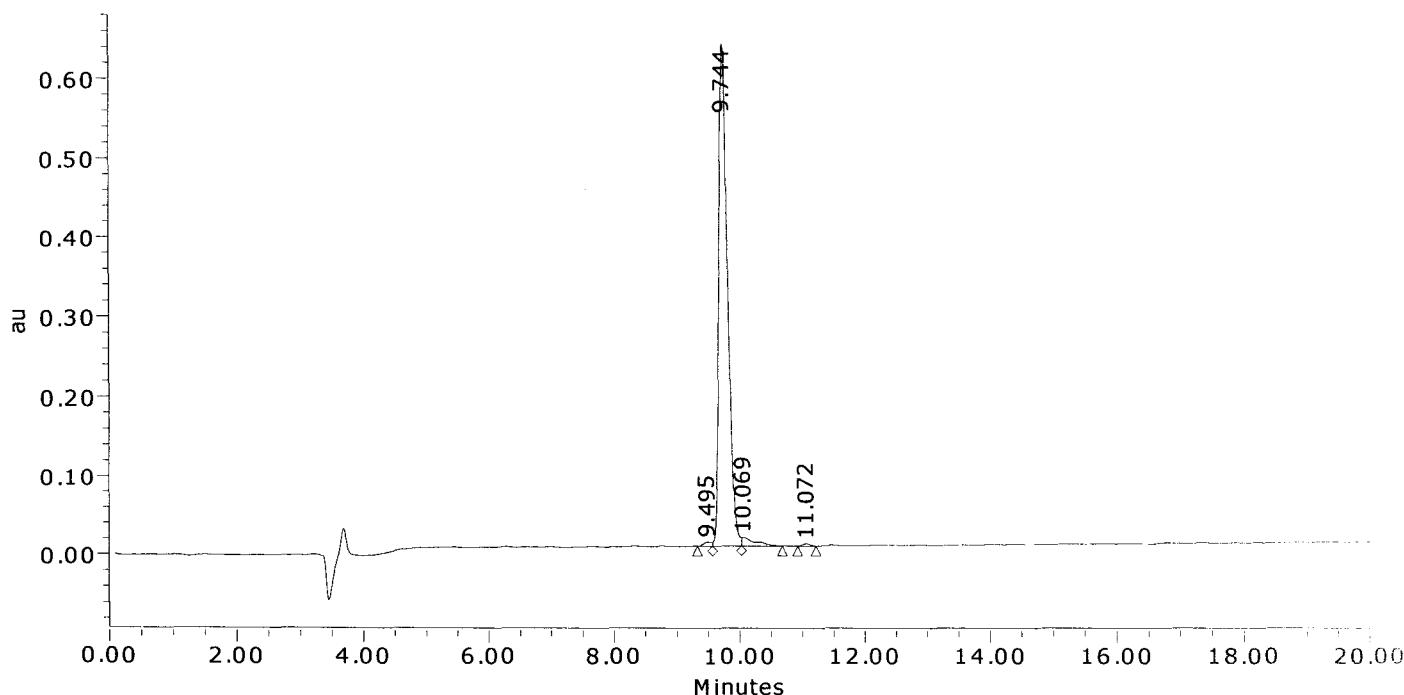
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344984/SW05205T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/27/2008 12:19:48 CST
Sample ID:	344984	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344984_A Final_PDA
Date Acquired:	5/26/2008 20:06:25 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.7	9.495	43934	4980
2	96.4	9.744	6166267	633525
3	2.5	10.069	162573	10704
4	0.4	11.072	23958	2922
<b>Sum</b>	<b>100.00</b>		<b>6396732</b>	<b>652132.2</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344984**

**Lot # : SW05205T**

**Chemist : Yan Li**

Date Acquired :

5/27/2008 16:46:57 CST

Expected MS :

MW: 1842.0

Acq. Method Set :

Import

Processing Method :

344984\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

1.0 Minutes

Flow rate :

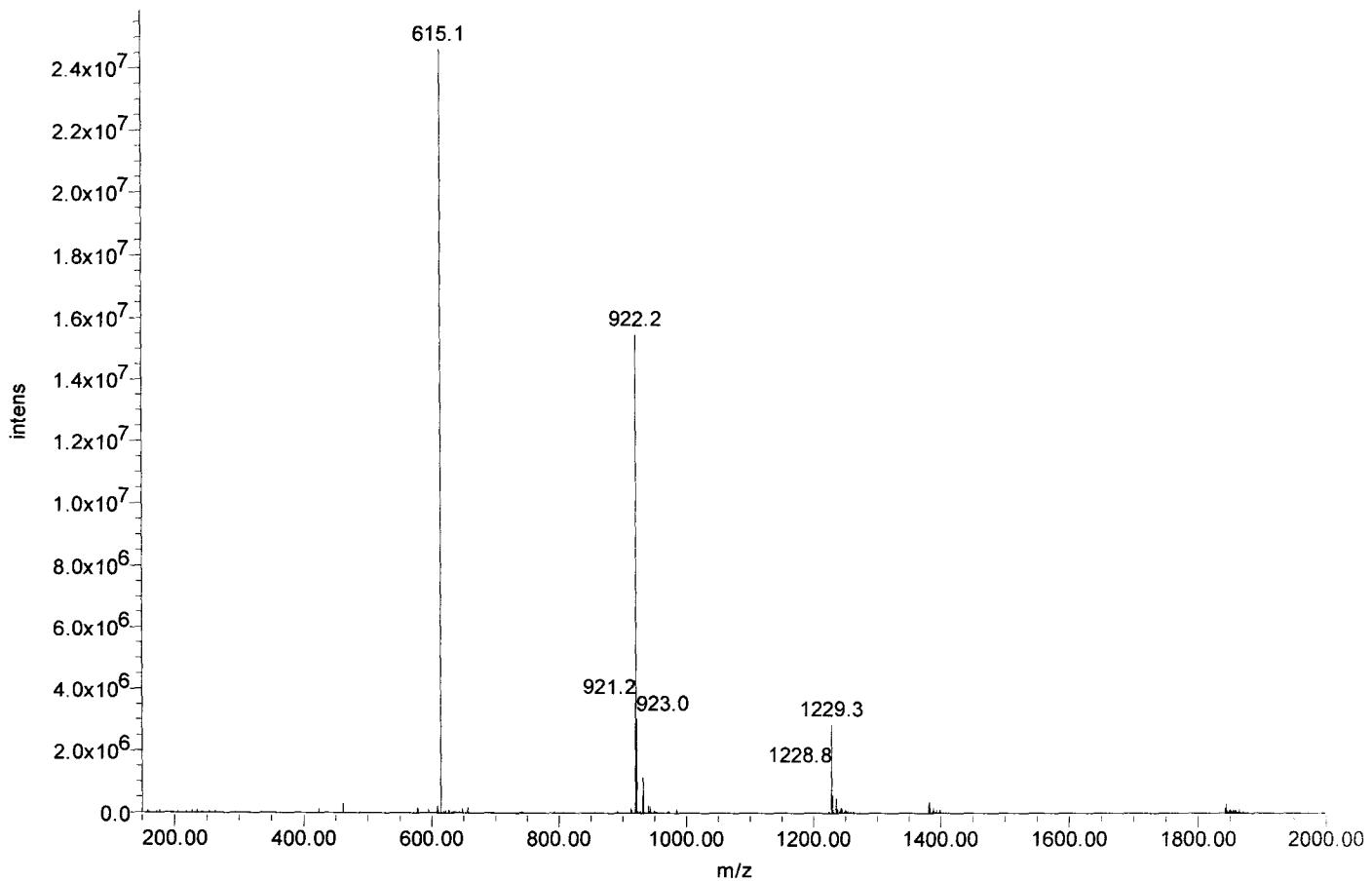
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #245  
IQFQQSKNSKFKNFR  
Cat#5954 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344985                   **Lot #:** SW05183T

**Sequence:** Ile-Gln-Phe-Gln-Gln-Ser-Lys-Asn-Ser-Lys-Phe-Lys-Asn-Phe-Arg

**Molecular Weight:** 1900.2 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 97.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 74.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	0.95		Ile	1.00	1.01		Phe	3.00	2.85	
Asx	2.00	2.00		Lys	3.00	2.84		Ser	2.00	1.65	
Glx	3.00	3.23									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

A handwritten signature in black ink that reads 'Yan Li'.

Date: 05/28/08

Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

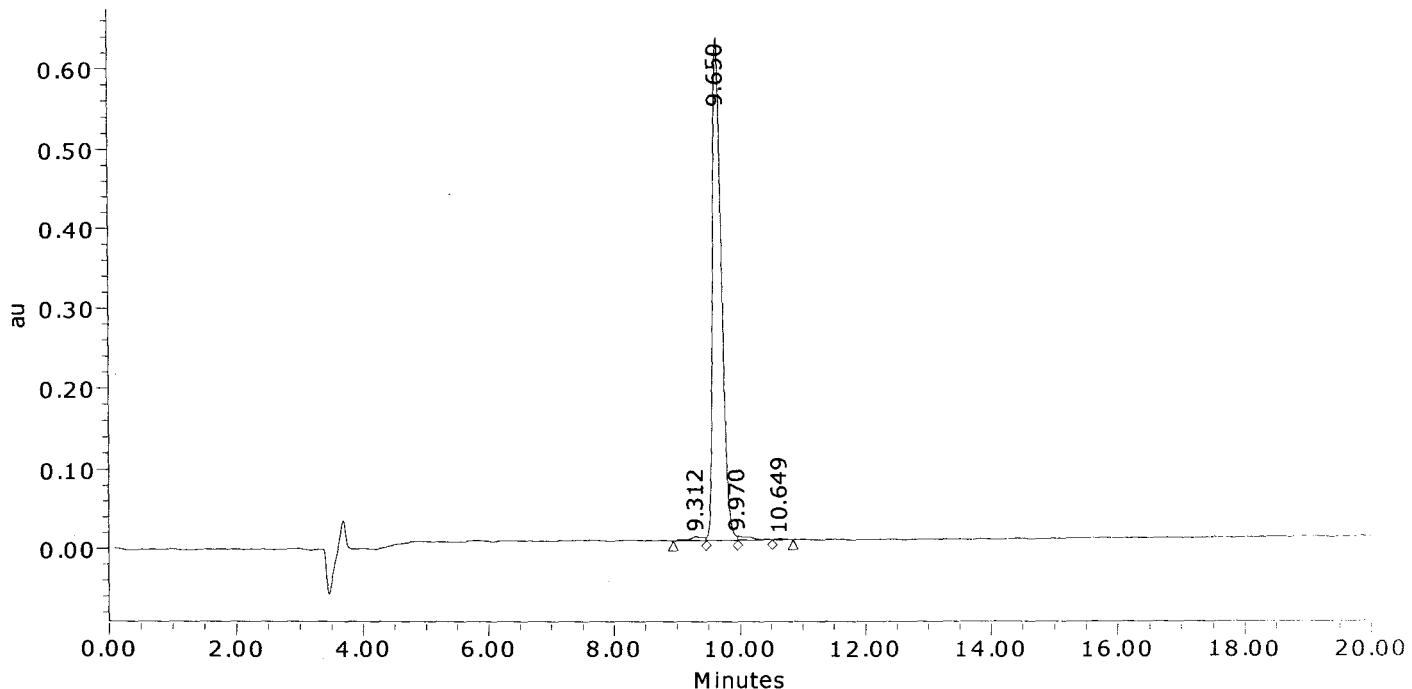
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344985/SW05183T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 14:34:35 CST  
Sample ID: 344985 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344985\_A Final\_PDA  
Date Acquired: 5/24/2008 0:51:52 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 16% -36% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.2	9.312	76142	5344
2	97.3	9.650	6156198	628939
3	1.2	9.970	78080	5507
4	0.2	10.649	14016	1535
Sum	100.00		6324436	641324.3

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344985**

**Lot # : SW05183T**

**Chemist : Yan Li**

Date Acquired :

5/24/2008 0:51:52 CST

Expected MS :

MW: 1900.2

Acq. Method Set :

Import

Processing Method :

344985\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

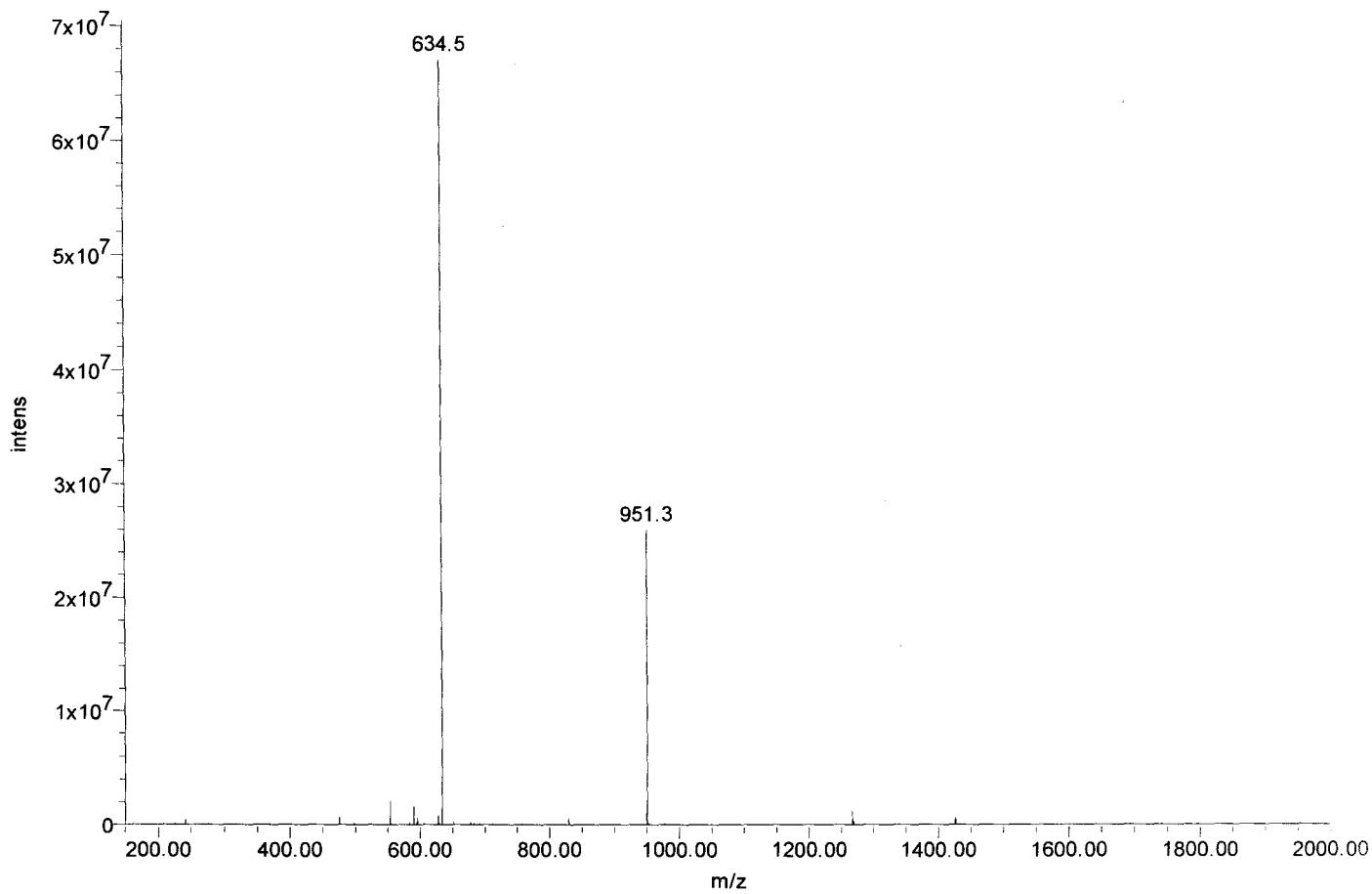
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #246  
QSKNSKFKNFRVYYR  
Cat#5955 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344986                   **Lot #:** SW05199T

**Sequence:** Gln-Ser-Lys-Asn-Ser-Lys-Phe-Lys-Asn-Phe-Arg-Val-Tyr-Tyr-Arg

**Molecular Weight:** 1965.3 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.2%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	1.91		Lys	3.00	2.83		Tyr	2.00	1.82	
Asx	2.00	2.00		Phe	2.00	1.92		Val	1.00	0.95	
Glx	1.00	1.12		Ser	2.00	1.65					

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yajie Li*

Date: 05/29/08

Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

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777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

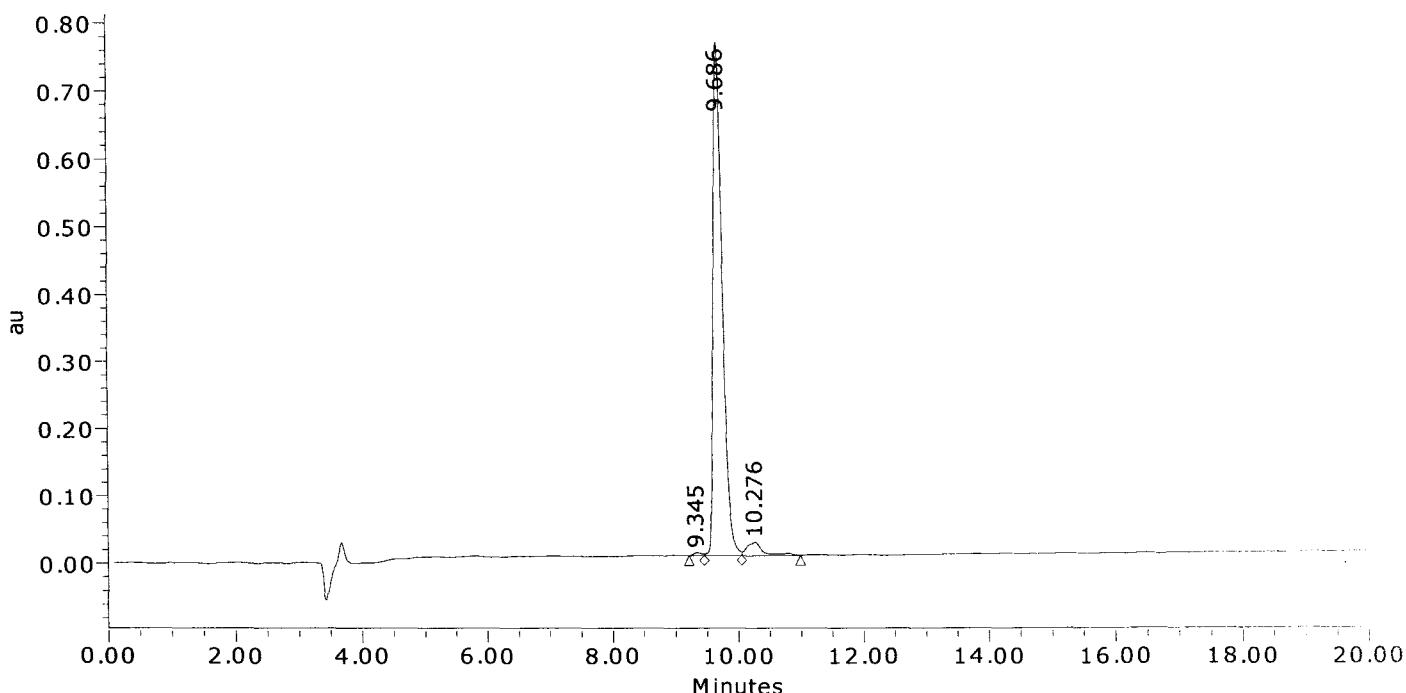
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344986/SW05199T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/27/2008 11:32:41 CST
Sample ID:	344986	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344986_A Final_PDA
Date Acquired:	5/26/2008 18:51:13 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17%-37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.4	9.345	36021	4155
2	95.3	9.686	7740803	759658
3	4.2	10.276	344112	19494
<b>Sum</b>	<b>100.00</b>		<b>8120936</b>	<b>783305.8</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

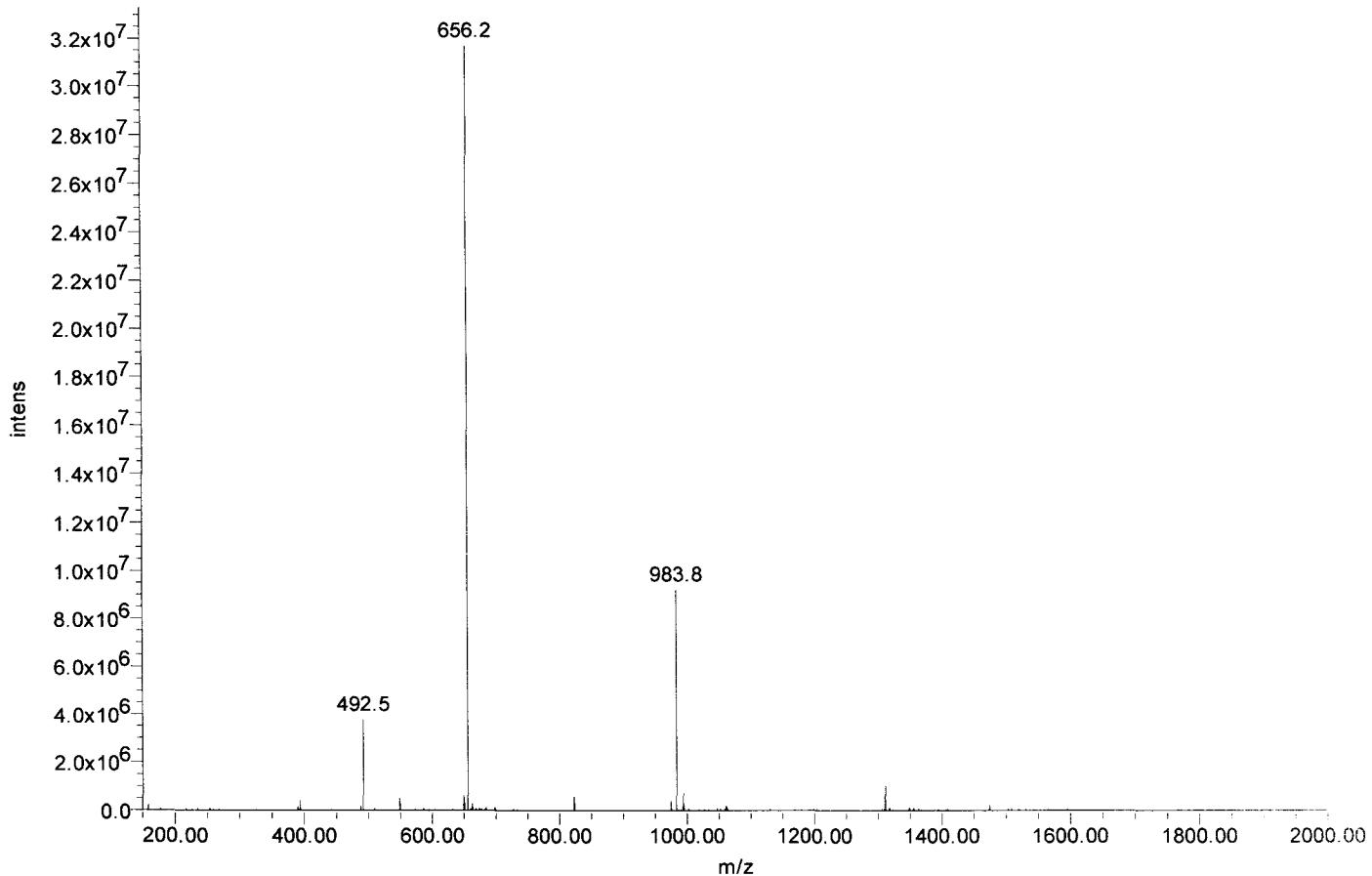
**Sample ID:**

**344986**

**Lot # : SW05199T**

**Chemist : Yan Li**

Date Acquired : 5/27/2008 16:48:57 CST  
Expected MS : MW: 1965.3  
Acq. Method Set : Import  
Processing Method : 344986\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #247  
SKFKNFRVYYREGRD  
Cat#5956 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344987                   **Lot #:** SW05184T

**Sequence:** Ser-Lys-Phe-Lys-Asn-Phe-Arg-Val-Tyr-Tyr-Arg-Glu-Gly-Arg-Asp

**Molecular Weight:** 1965.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 98.2%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 73.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	3.00	2.89	Gly		1.00	0.98		Ser	1.00	0.86	
Asx	2.00	2.00	Lys		2.00	1.90		Tyr	2.00	1.88	
Glx	1.00	1.11	Phe		2.00	1.93		Val	1.00	1.07	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yon2 Li Date: 05/28/08  
Quality Control Department

## AMERICAN PEPTIDE COMPANY, INC.

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA  
Tel: 408-733-7604 Fax: 408-733-7603

1271 Avenida Chelsea  
Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

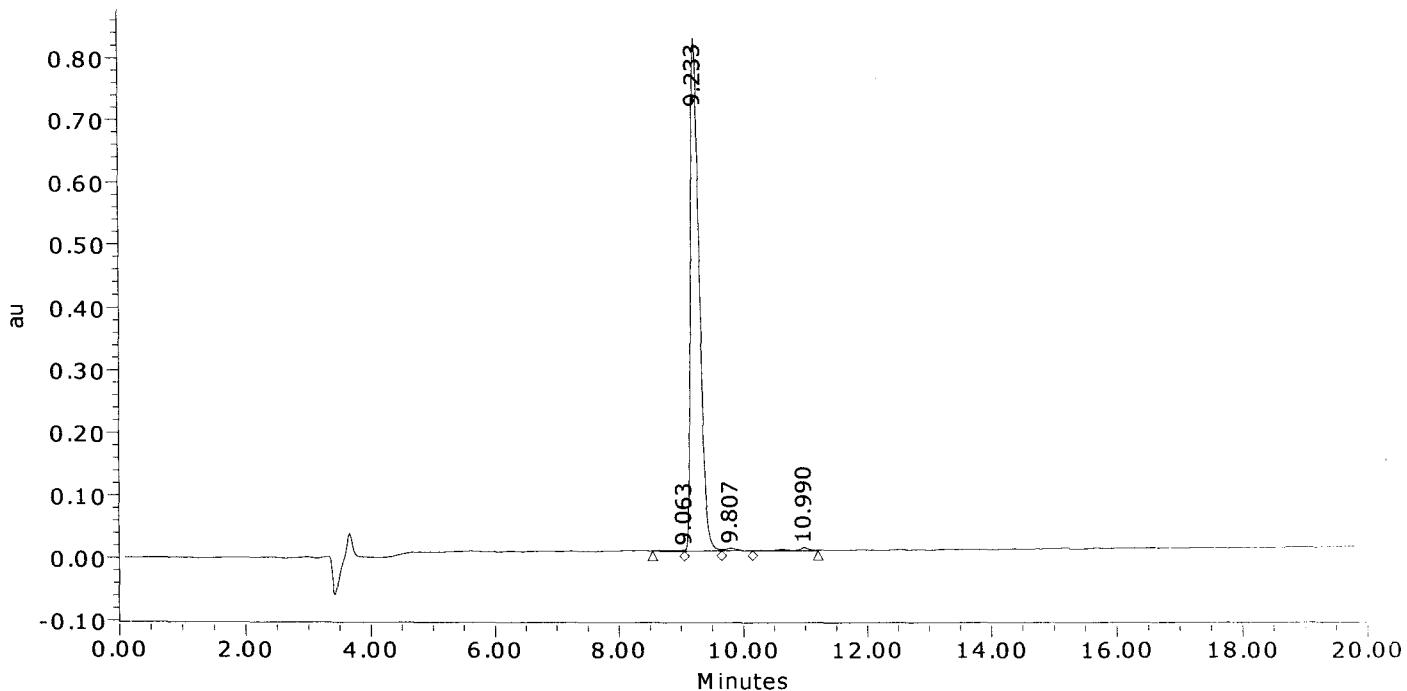
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344987/SW05184T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 14:13:25 CST  
Sample ID: 344987 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344987\_A Final\_PDA  
Date Acquired: 5/24/2008 0:12:17 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.3	9.063	26953	1532
2	98.2	9.233	8034675	819434
3	0.6	9.807	51705	3902
4	0.8	10.990	68092	4428
<b>Sum</b>	<b>100.00</b>		<b>8181426</b>	<b>829295.2</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344987

Lot # : SW05184T

Chemist : Yan Li

Date Acquired :

5/24/2008 0:12:17 CST

Expected MS :

MW: 1965.2

Acq. Method Set :

Import

Processing Method :

344987\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

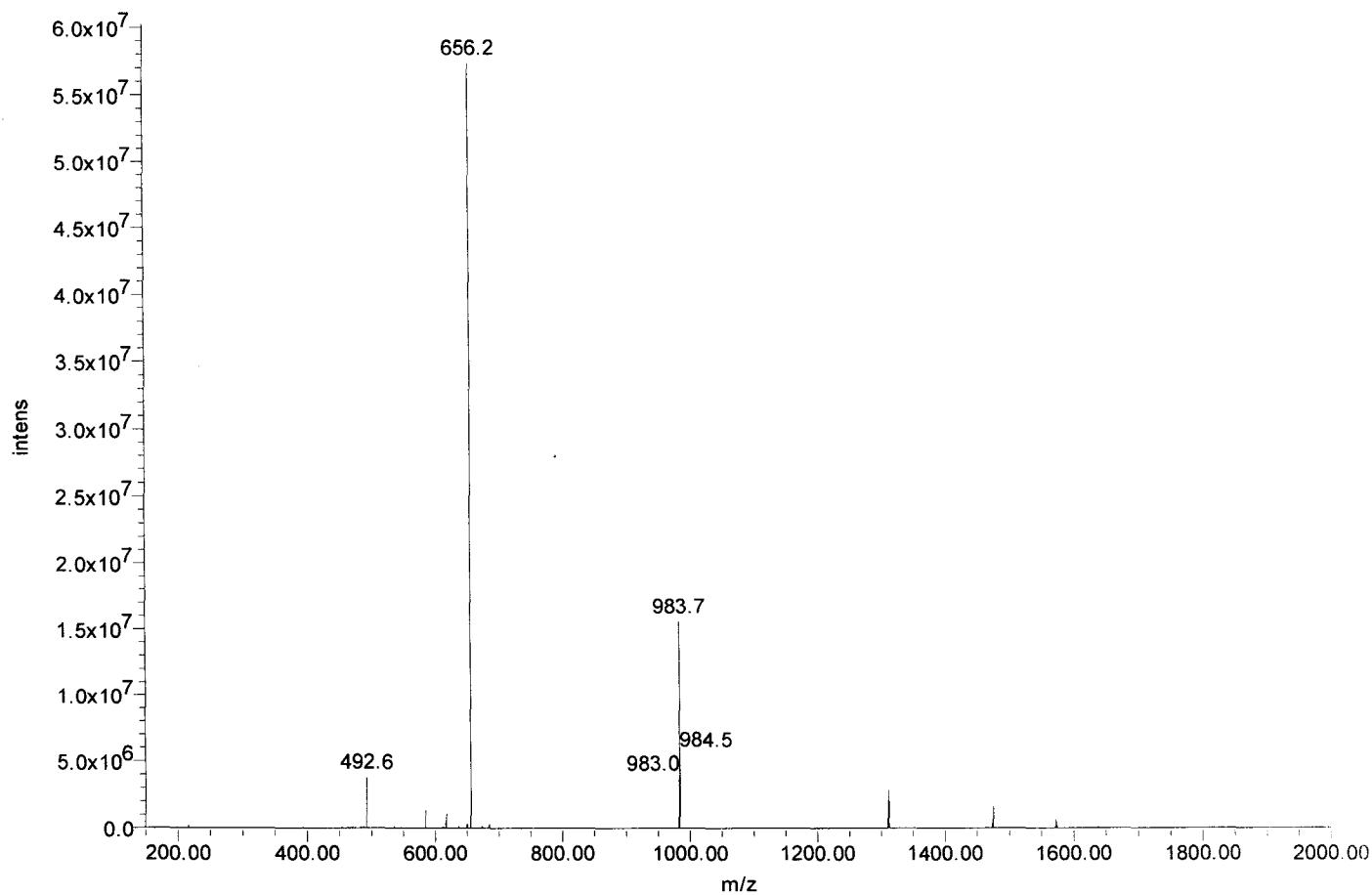
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #248**  
NFRVYYREGRDQLWK  
Cat#5957 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	3.00	3.00	Leu	1.00	1.03	Trp	1.00	0.00 *1
Asx	2.00	2.06	Lys	1.00	1.04	Tyr	2.00	1.94
Glx	2.00	1.95	Phe	1.00	0.99	Val	1.00	1.01
Gly	1.00	1.04						

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yan Li **Date:** 05/30/08  
Quality Control Department

Headquarters  
777 E. Evelyn Avenue  
Sunnyvale, CA 94086 USA

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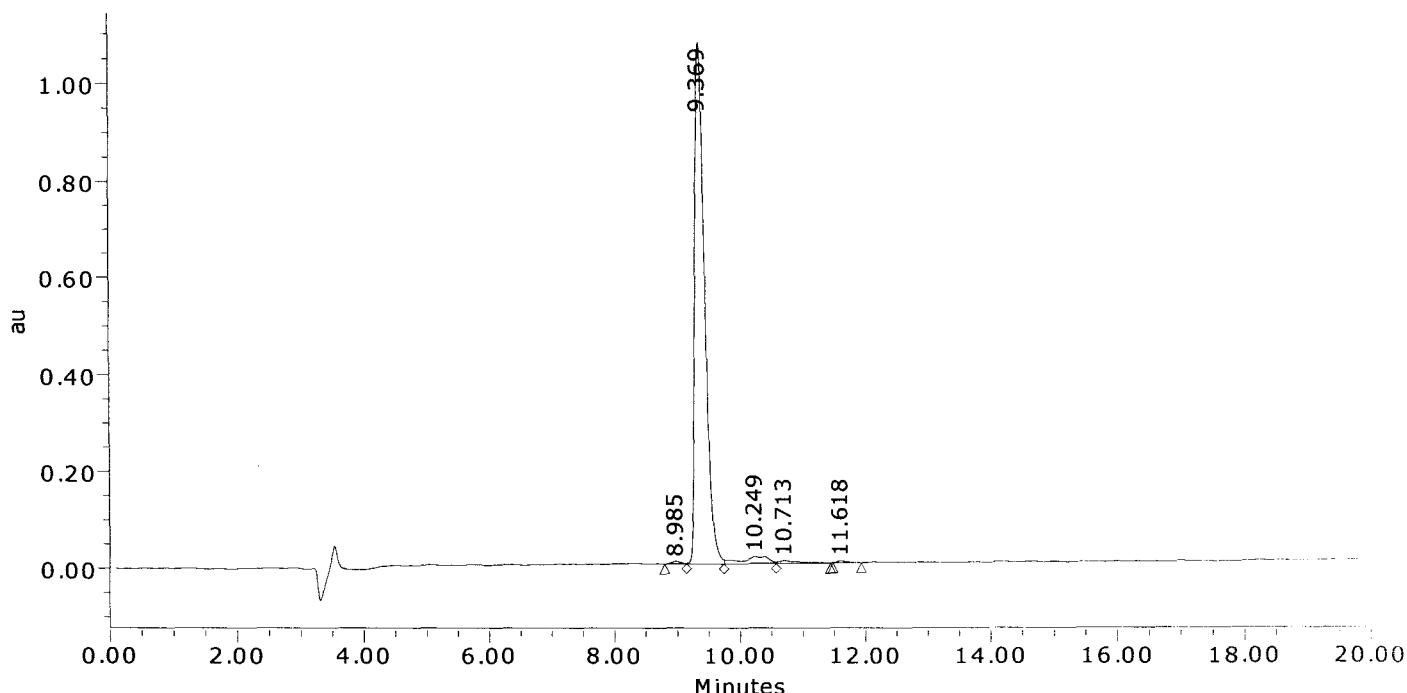
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344988/SW05206T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 10:48:48 CST  
Sample ID: 344988 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344988\_A Final\_PDA  
Date Acquired: 5/26/2008 13:59:56 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 20% -40% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



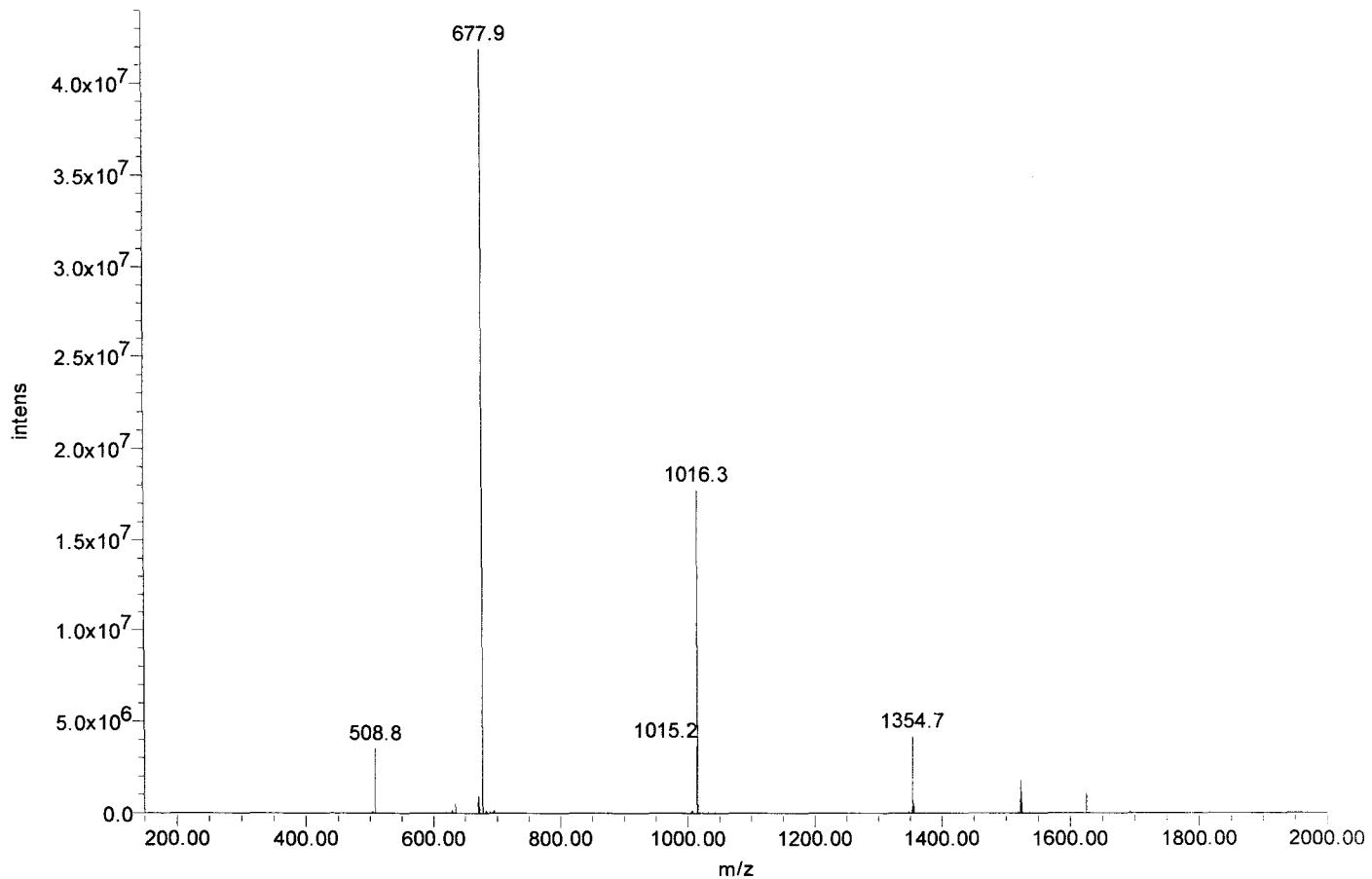
	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	8.985	45970	4816
2	94.8	9.369	11754598	1073260
3	3.4	10.249	422347	14022
4	1.1	10.713	130253	5613
5	0.4	11.618	44597	3902
Sum	100.00		12397765	1101612.1

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID: 344988 Lot #: SW05206T Chemist : Yan Li

Date Acquired : 5/26/2008 13:59:56 CST  
Expected MS : MW: 2030.3  
Acq. Method Set : Import  
Processing Method : 344988\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #249**  
YYREGRDQLWKGPGE  
Cat#5958 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344989                   **Lot #:** SW05232T

**Sequence:** Tyr-Tyr-Arg-Glu-Gly-Arg-Asp-Gln-Leu-Trp-Lys-Gly-Pro-Gly-Glu

**Molecular Weight:** 1854.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.4%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 63.1%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/28/08

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	1.98	Gly	3.00	3.01	Pro	1.00	0.93
Asx	1.00	1.00	Leu	1.00	0.98	Trp	1.00	0.00
Glx	3.00	2.74	Lys	1.00	1.00	Tyr	2.00	1.93

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** On 2 L1 **Date:** 06/02/08  
**Quality Control Department**

## Quality Control Department

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777 E. Evelyn Avenue  
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Tel: 760-597-8820 Fax: 760-597-8816

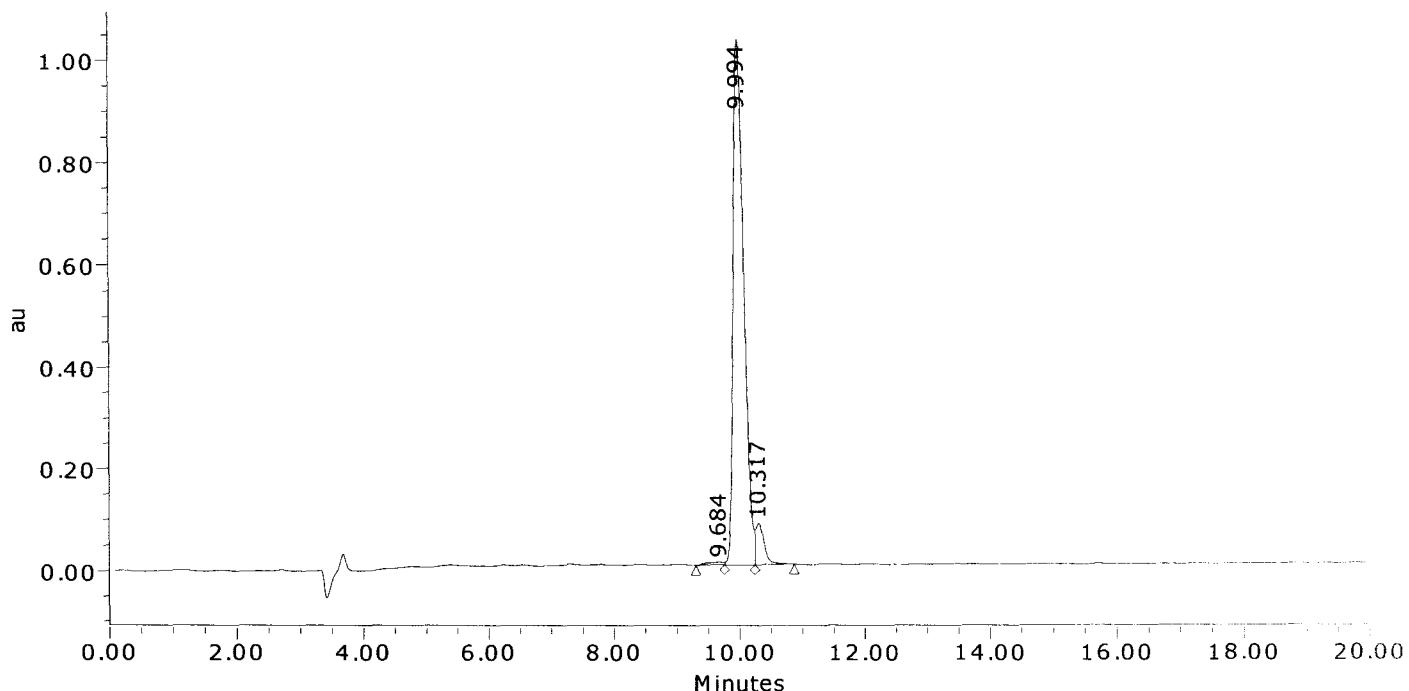
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344989/SW05232T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/29/2008 9:27:29 CST
Sample ID:	344989	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344989_A Final_PDA
Date Acquired:	5/28/2008 14:32:17 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.7	9.684	90292	4870
2	93.4	9.994	12107782	1026721
3	5.9	10.317	765452	80315
<b>Sum</b>	<b>100.00</b>		<b>12963526</b>	<b>1111906.0</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344989**

**Lot # : SW05232T**

**Chemist : Yan Li**

Date Acquired :

5/28/2008 14:32:17 CST

Expected MS :

MW: 1854.0

Acq. Method Set :

Import

Processing Method :

344989\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -Imfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

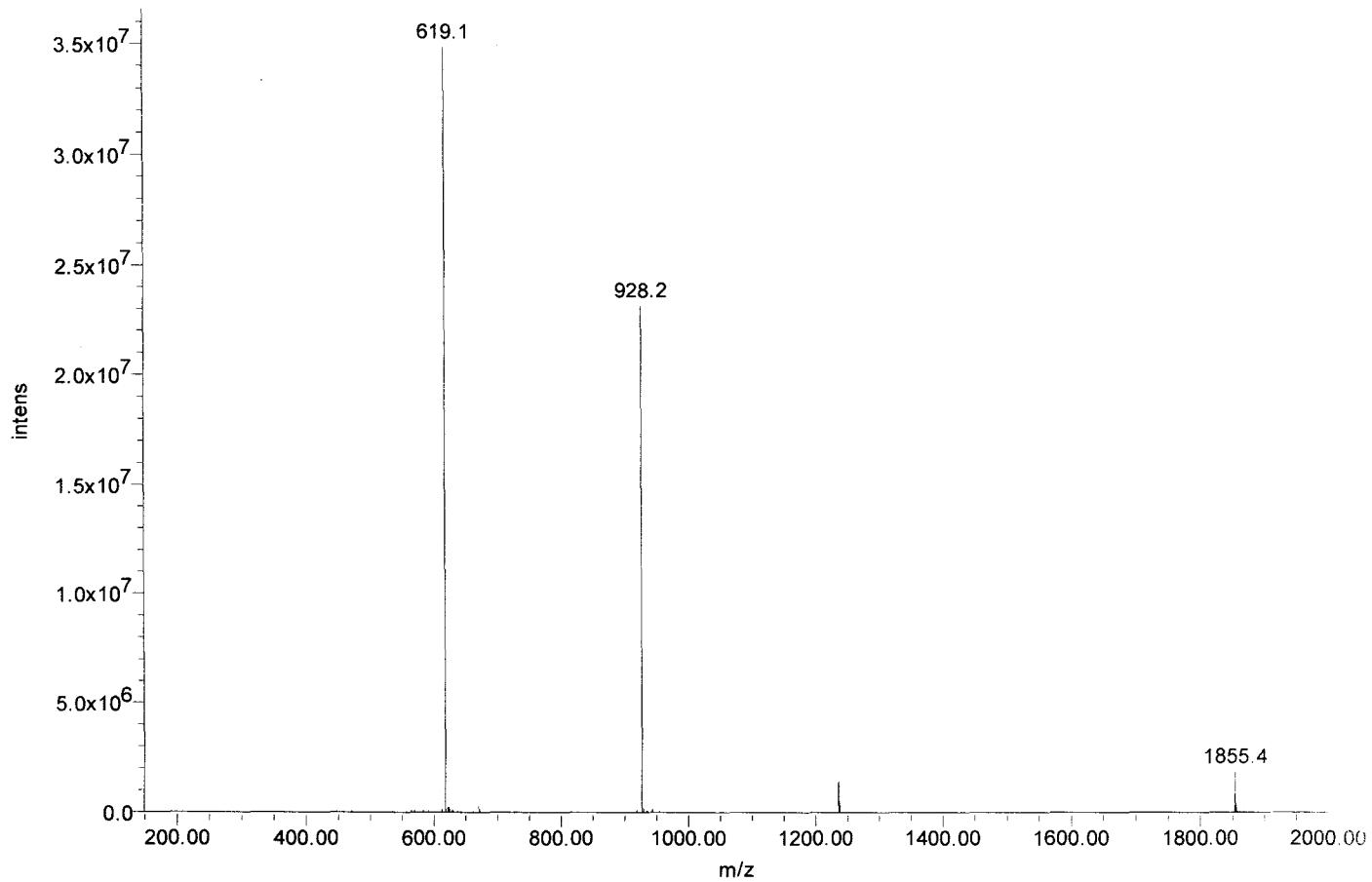
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #250  
GRDQLWKGPGEELLWK  
Cat#5959 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344990                   **Lot #:** SW05180T  
**Sequence:** Gly-Arg-Asp-Gln-Leu-Trp-Lys-Gly-Pro-Gly-Glu-Leu-Leu-Trp-Lys  
**Molecular Weight:** 1783.1 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 97.7%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 73.8%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	1.00	1.00		Gly	3.00	3.06		Pro	1.00	0.85	
Asx	1.00	1.05		Leu	3.00	3.11		Trp	2.00	0.00	*1
Glx	2.00	2.29		Lys	2.00	2.01					

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan Li*

Date: 05/29/08

Quality Control Department

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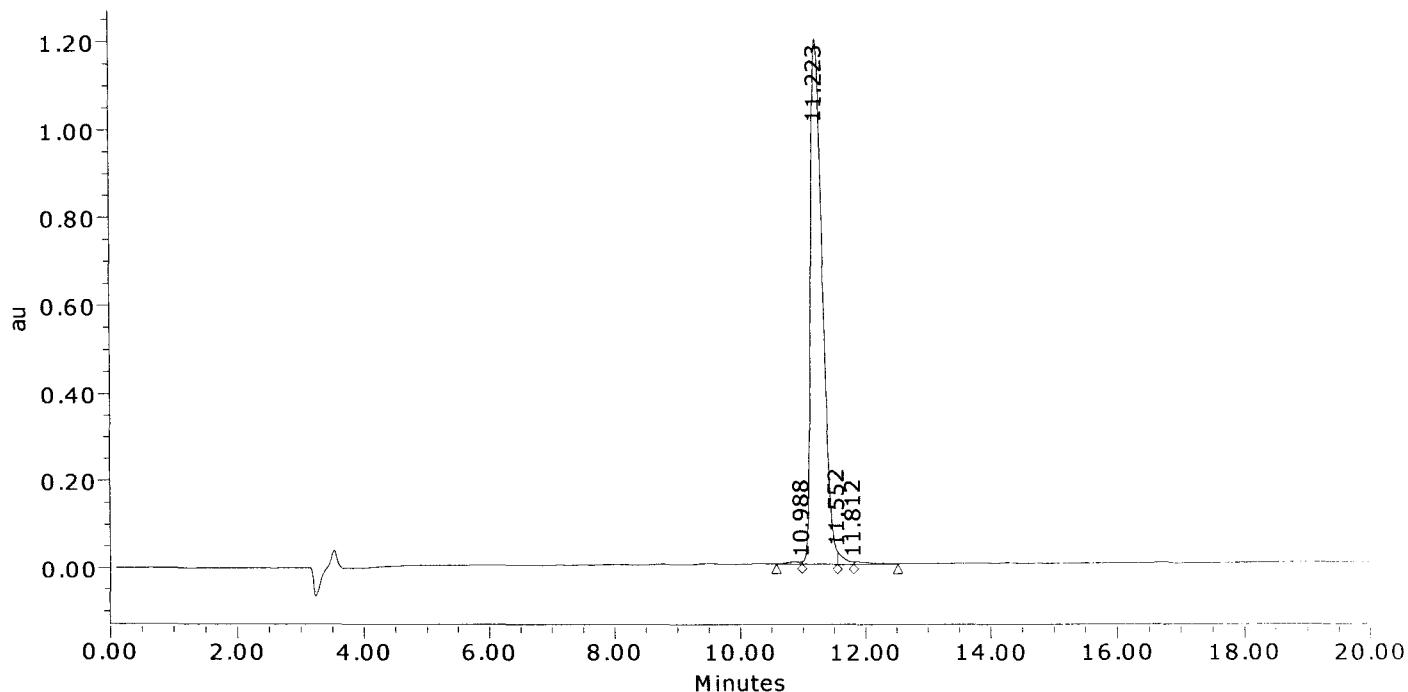
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344990/SW05180T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 13:17:02 CST  
Sample ID: 344990 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344990\_A Final\_PDA  
Date Acquired: 5/23/2008 20:16:36 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.4	10.988	66685	4809
2	97.7	11.223	15612998	1195175
3	1.3	11.552	205729	29261
4	0.6	11.812	96897	5017
Sum	100.00		15982310	1234262.2

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344990

Lot # : SW05180T

Chemist : Yan Li

Date Acquired :

5/23/2008 20:16:36 CST

Expected MS :

MW: 1783.1

Acq. Method Set :

Import

Processing Method :

344990\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

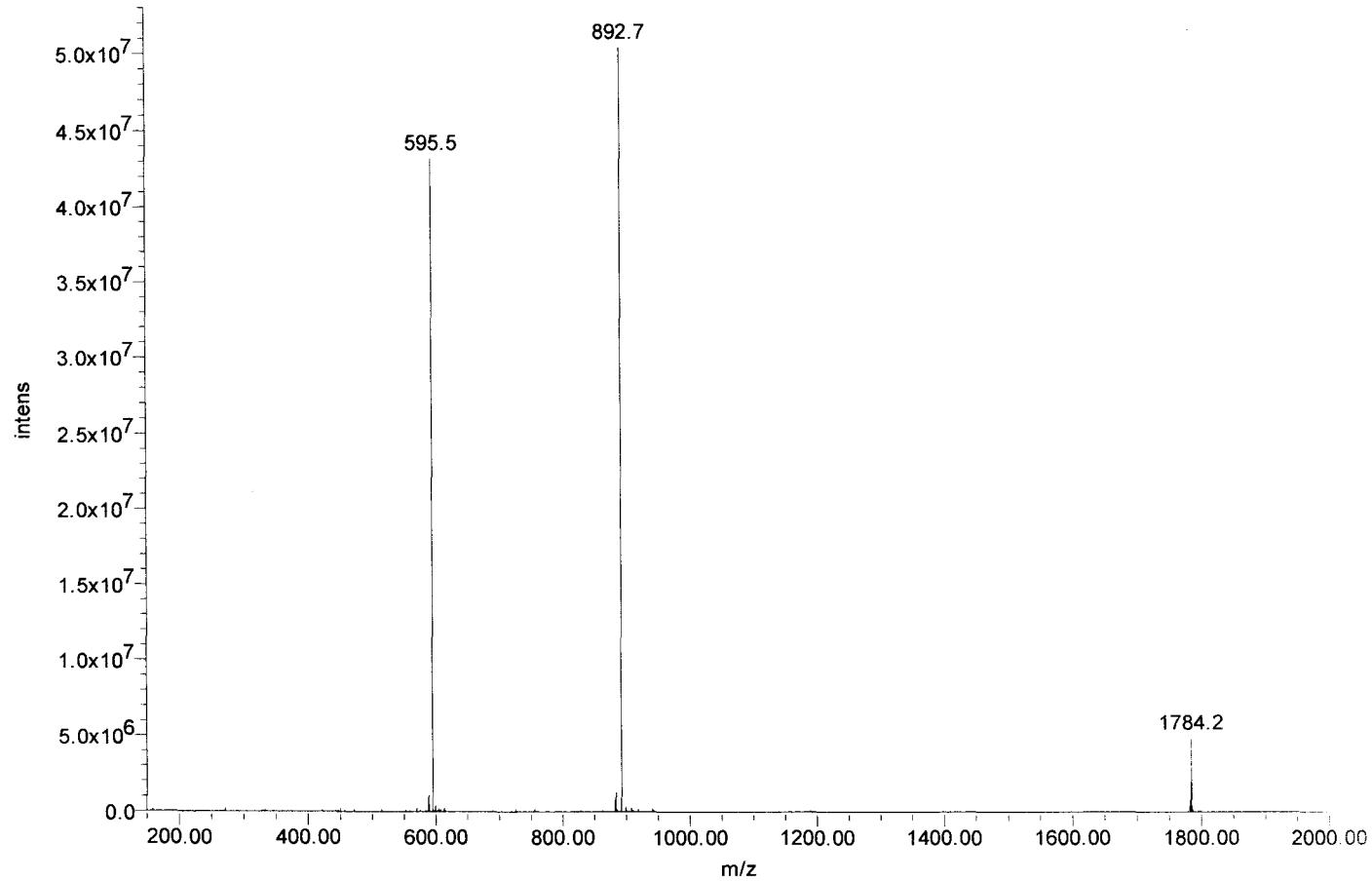
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #251  
LWKGPGEELLWKGEGA  
Cat#5960 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344991                   **Lot #:** SW05254T

**Sequence:** Leu-Trp-Lys-Gly-Pro-Gly-Glu-Leu-Leu-Trp-Lys-Gly-Glu-Gly-Ala

**Molecular Weight:** 1640.9 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 82.5%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 68.5%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 06/02/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.89		Leu	3.00	3.10		Pro	1.00	0.95	
Glx	2.00	2.22		Lys	2.00	2.00		Trp	2.00	0.00	*1
Gly	4.00	3.80									

\*1 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li  
Quality Control Department

Date: 06/05/08

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Vista, CA 92081 USA  
Tel: 760-597-8820 Fax: 760-597-8816

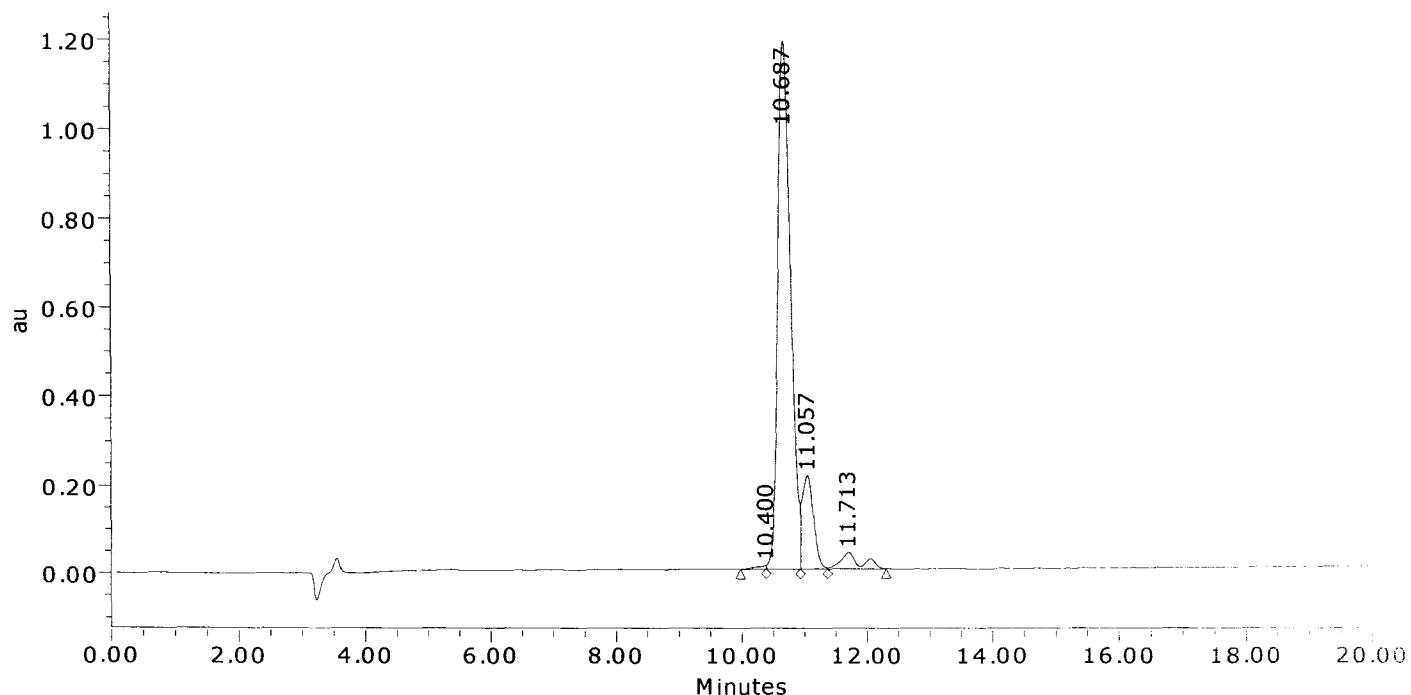
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344991/SW05254T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/2/2008 13:13:57 CST  
Sample ID: 344991 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344991\_A Final\_PDA  
Date Acquired: 6/2/2008 12:31:18 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 24% -44% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	0.4	10.400	80166	8688
2	82.5	10.687	16878073	1185563
3	13.2	11.057	2701405	213399
4	3.9	11.713	803905	37045
Sum	100.00		20463549	1444695.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344991**

**Lot # : SW05254T**

**Chemist : Yan Li**

Date Acquired :

6/2/2008 12:31:18 CST

Expected MS :

MW: 1640.9

Acq. Method Set :

Import

Processing Method :

344991\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

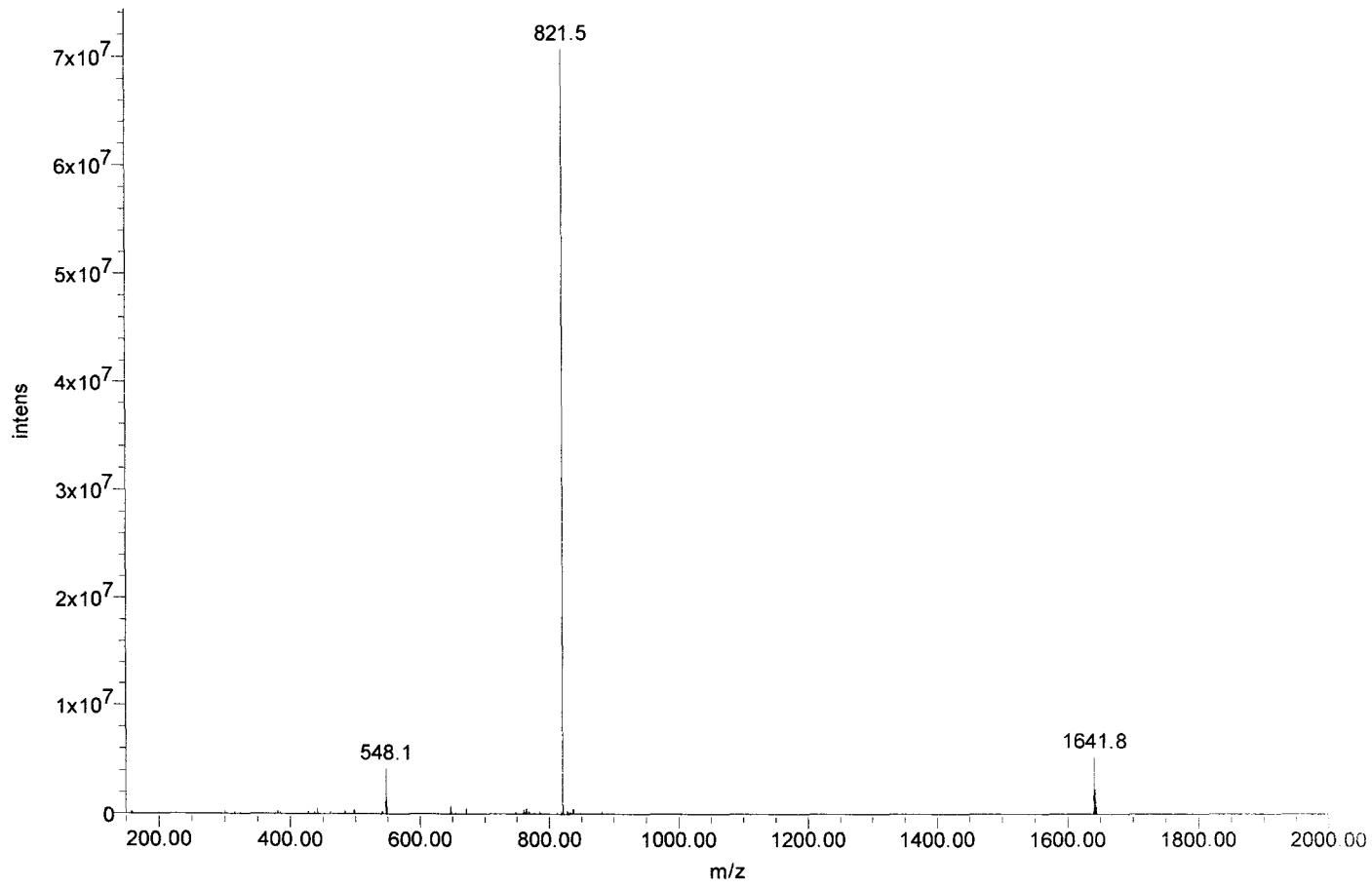
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #252**  
PGELIWKGEGAVILK  
Cat#5961 Lot#080132  
Net Wt. 1mg

#### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.93	Ile	1.00	0.61	*1	Pro	1.00
Glx	2.00	2.00	Leu	3.00	2.71		Trp	1.00
Gly	3.00	2.66	Lys	2.00	1.81		Val	1.00

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

\*2 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Yon2 Li **Date:** 05/28/08  
**Quality Control Department**

Quality Control Department

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Sunnyvale, CA 94086 USA

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Tel: 760-597-8820 Fax: 760-597-8816

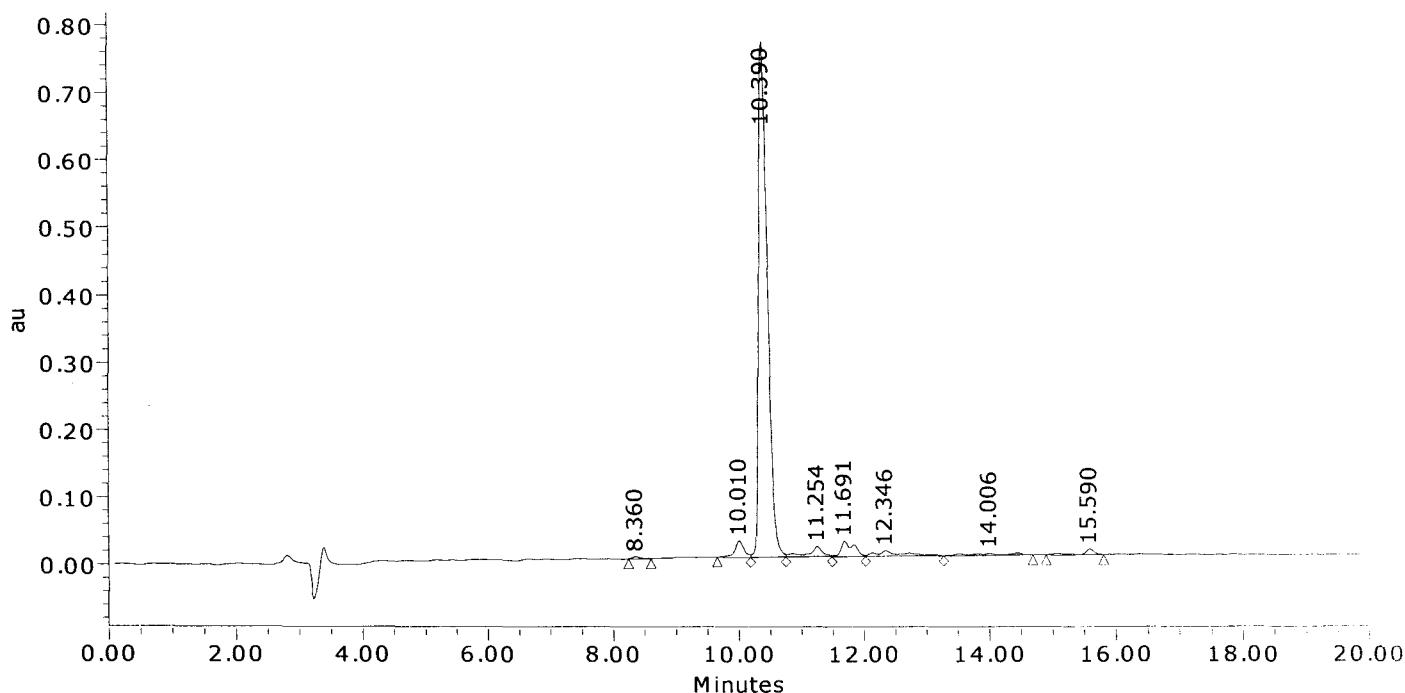
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344992/SW05203T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 10:34:20 CST  
Sample ID: 344992 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344992\_A Final\_PDA  
Date Acquired: 5/26/2008 13:19:08 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li; Column Temp.: 50C



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.3	8.360	26182	3212
2	2.9	10.010	252338	24538
3	85.4	10.390	7552963	764654
4	2.6	11.254	227977	14724
5	3.7	11.691	330000	22863
6	2.5	12.346	222773	8067
7	1.3	14.006	118133	3085
8	1.3	15.590	114401	8502
<b>Sum</b>	<b>100.00</b>		<b>8844767</b>	<b>849644.5</b>

# American Peptide Company, Inc.

## MS Analysis Report

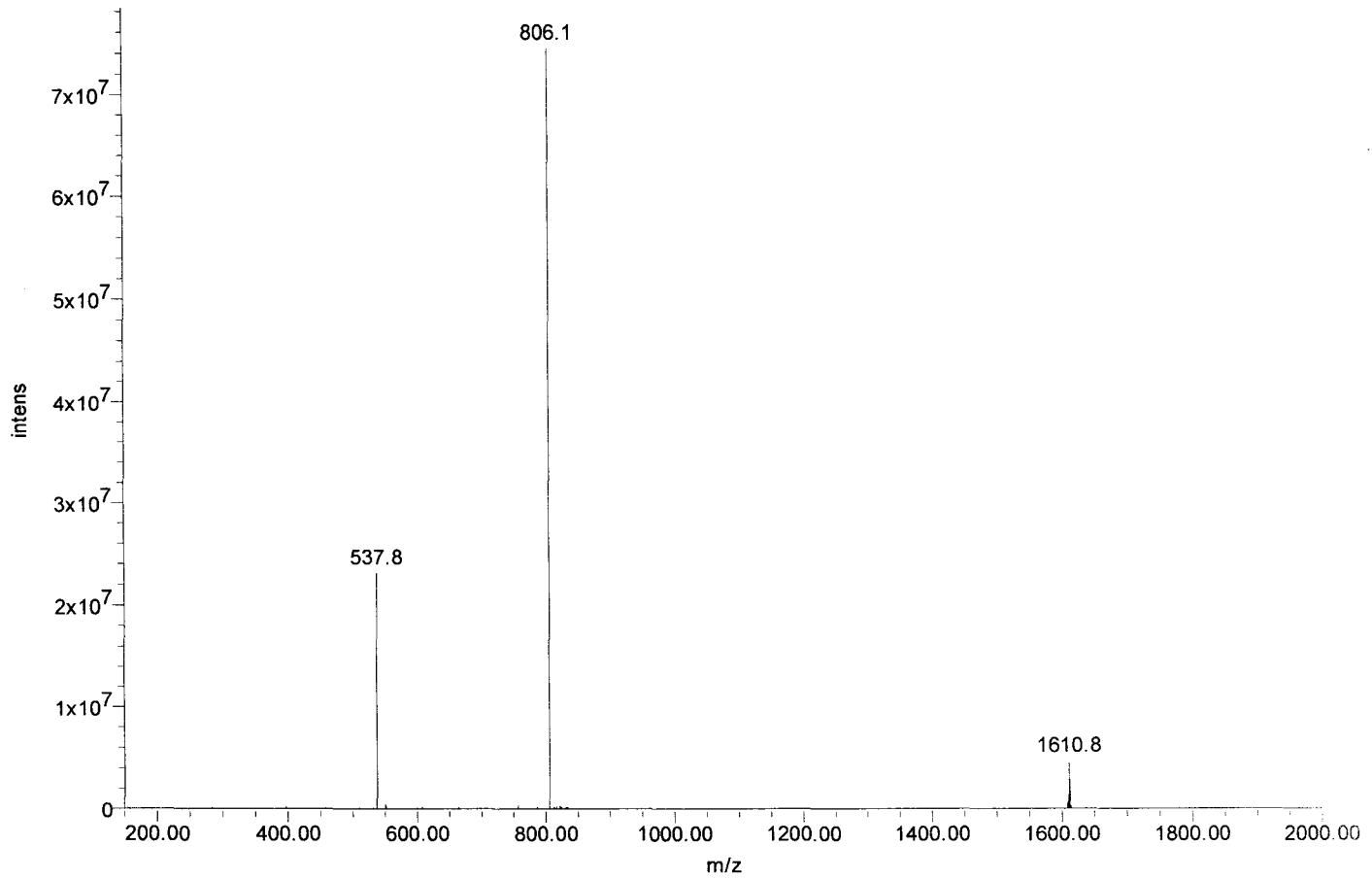
Sample ID:

344992

Lot # : SW05203T

Chemist : Yan Li

Date Acquired : 5/26/2008 13:19:08 CST  
Expected MS : MW: 1609.9  
Acq. Method Set : Import  
Processing Method : 344992\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #253  
LWKGEGAVILKVGTD  
Cat#5962 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344993                   **Lot #:** SW05193T

**Sequence:** Leu-Trp-Lys-Gly-Glu-Gly-Ala-Val-Ile-Leu-Lys-Val-Gly-Thr-Asp

**Molecular Weight:** 1585.9 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 85.3%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 79.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00		Ile	1.00	0.66	*1	Thr	1.00	0.95	
Asx	1.00	0.92		Leu	2.00	1.92		Trp	1.00	0.00	*2
Glx	1.00	1.11		Lys	2.00	1.91		Val	2.00	1.60	*1
Gly	3.00	2.91									

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

\*2 Trp was completely destroyed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/28/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

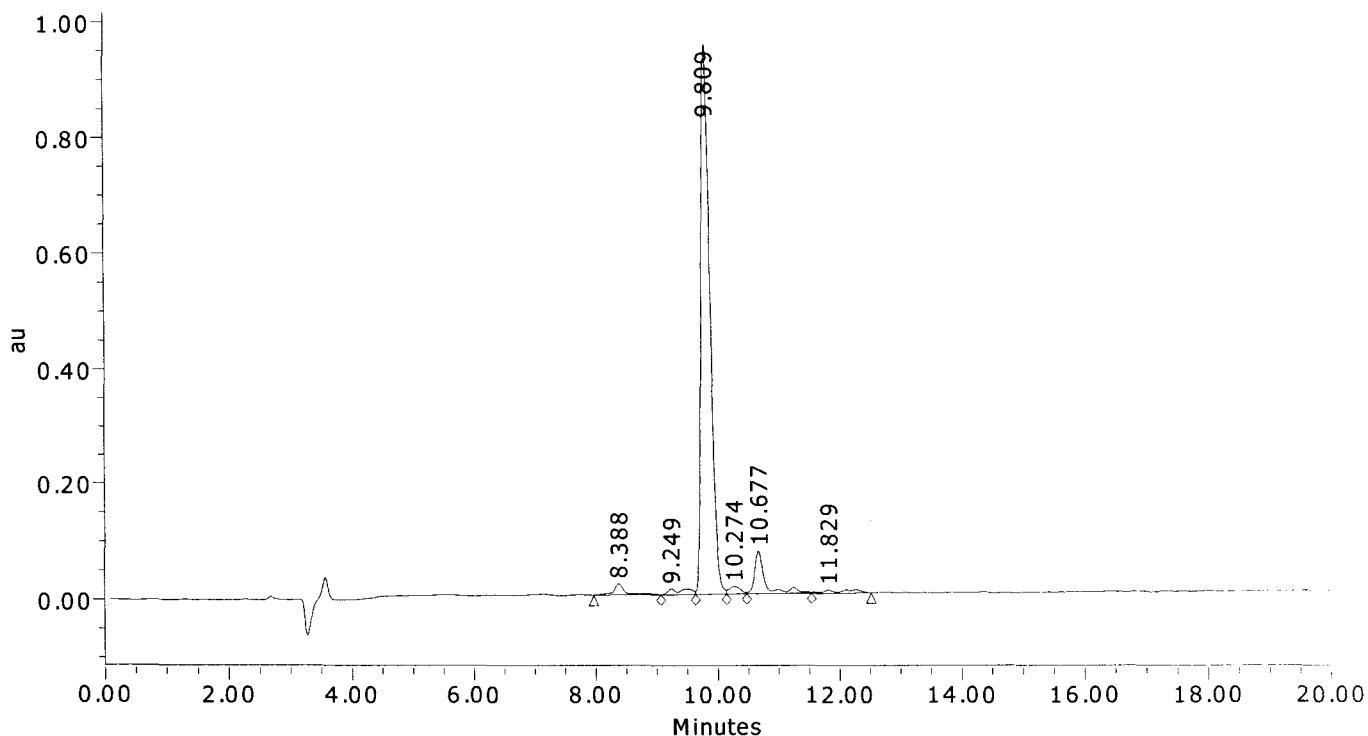
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344993/SW05193T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 10:10:44 CST  
Sample ID: 344993 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344993\_A Final\_PDA  
Date Acquired: 5/26/2008 10:52:33 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 22%-42% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.1	8.388	248508	19121
2	1.9	9.249	218618	10078
3	85.3	9.809	9862499	953658
4	1.5	10.274	170880	12591
5	7.5	10.677	872811	73407
6	1.6	11.829	190050	5897
Sum	100.00		11563367	1074752.7

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**344993**

**Lot # : SW05193T**

**Chemist : Yan Li**

Date Acquired :

5/26/2008 10:52:33 CST

Expected MS :

MW: 1585.9

Acq. Method Set :

Import

Processing Method :

344993\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

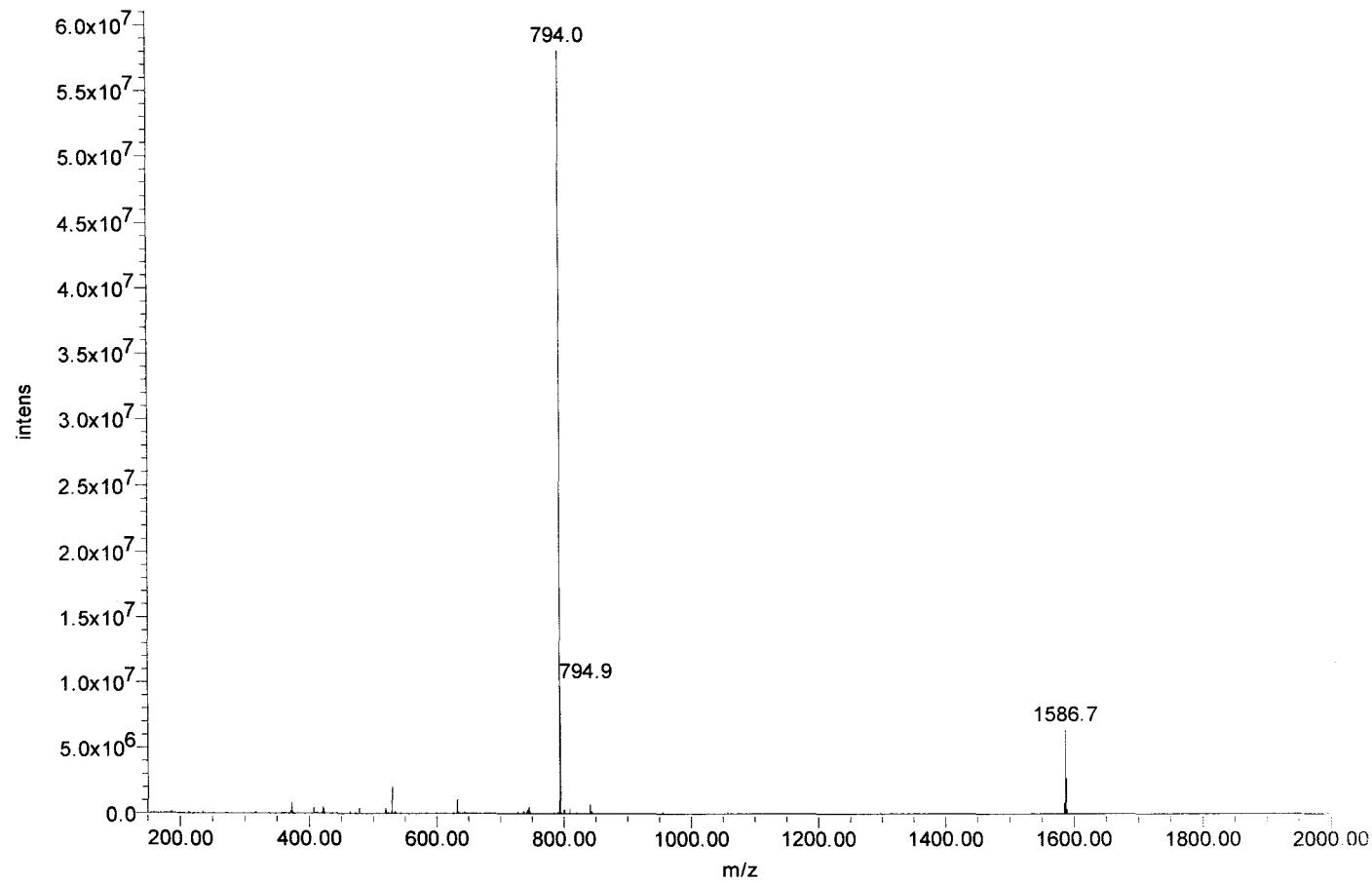
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #254**  
EGAVILKVGTDIKVV  
Cat#5963 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	0.98	Gly	2.00	1.89	Lys	2.00	1.94
Asx	1.00	1.00	Ile	2.00	1.58	*1	Thr	1.00
Glx	1.00	1.06	Leu	1.00	0.98	Val	4.00	3.23

\*1 Ile-Val bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Jan Li **Date:** 06/05/08  
**Quality Control Department**

Quality Control Department

# AMERICAN PEPTIDE COMPANY, INC.

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Tel: 81-297-45-6811 Fax: 81-297-45-6852

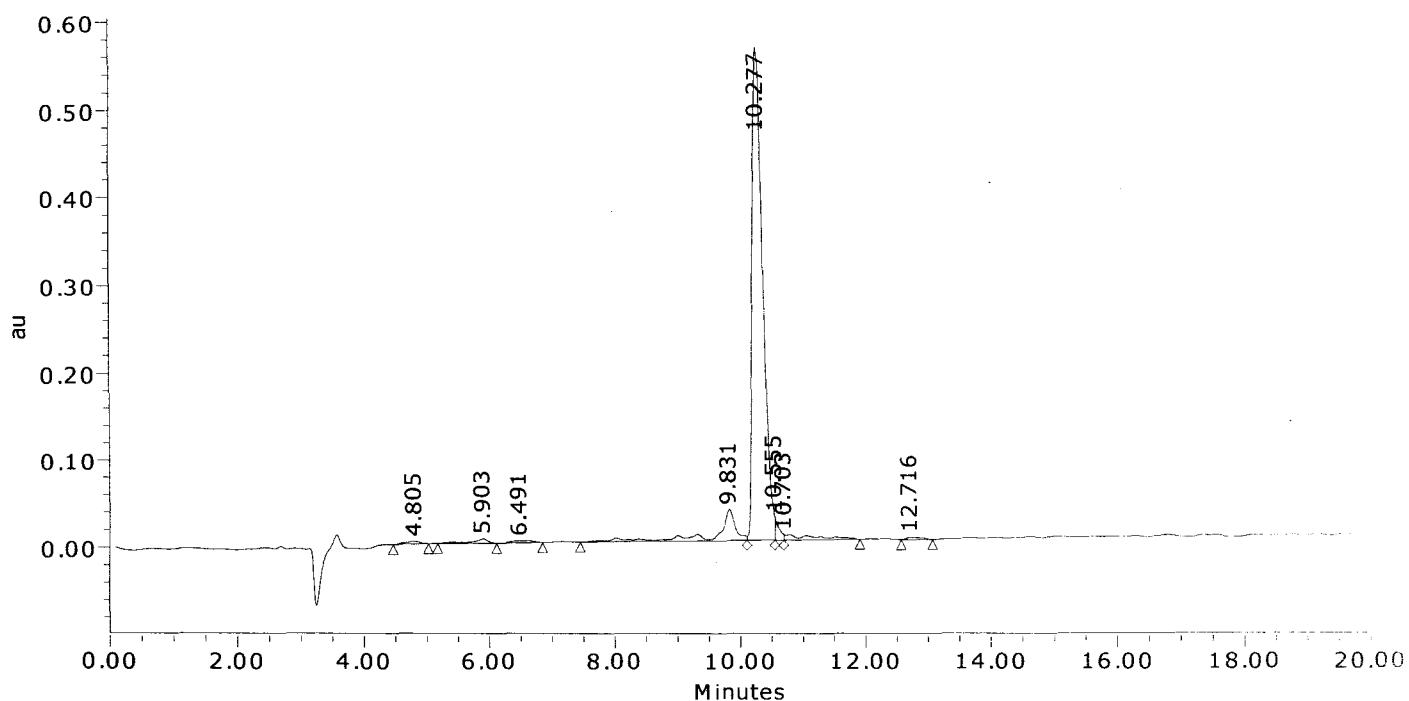
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344994/SW06012T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 6/3/2008 17:19:10 CST  
Sample ID: 344994 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344994\_A\_Final\_PDA  
Date Acquired: 6/3/2008 16:33:15 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 23% -43% Buffer B in 20 min.; Inj Vol.: 20  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.6	4.805	45955	2929
2	1.2	5.903	93612	5044
3	0.7	6.491	57068	2281
4	9.8	9.831	777451	34996
5	82.9	10.277	6578487	563423
6	1.5	10.555	120090	26207
7	2.7	10.703	217125	6061
8	0.6	12.716	46124	2786
Sum	100.00		7935912	643726.4

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344994

Lot # : SW06012T

Chemist : Yan Li

Date Acquired :

6/3/2008 16:33:15 CST

Expected MS :

MW: 1540.9

Acq. Method Set :

Import

Processing Method :

344994\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

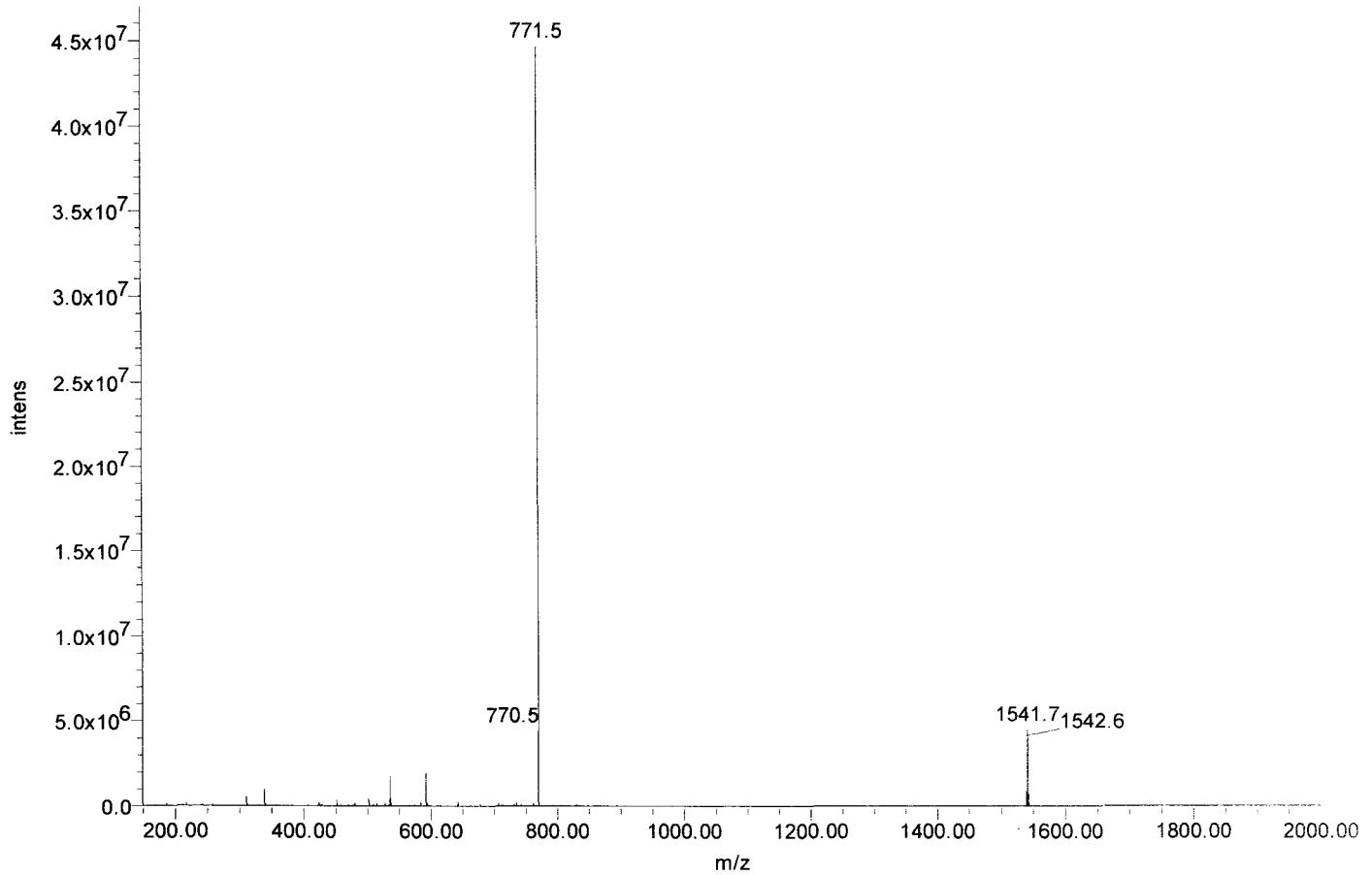
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #255  
ILKVGIDIKVVPRRK  
Cat#5964 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344995                   **Lot #:** SW05195T

**Sequence:** Ile-Leu-Lys-Val-Gly-Thr-Asp-Ile-Lys-Val-Val-Pro-Arg-Arg-Lys

**Molecular Weight:** 1722.2 amu

**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 70.8%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Arg	2.00	2.00		Ile	2.00	1.86		Pro	1.00	0.90	
Asx	1.00	1.01		Leu	1.00	1.02		Thr	1.00	1.09	
Gly	1.00	1.02		Lys	3.00	2.96		Val	3.00	2.56	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

Date: 05/28/08

Quality Control Department

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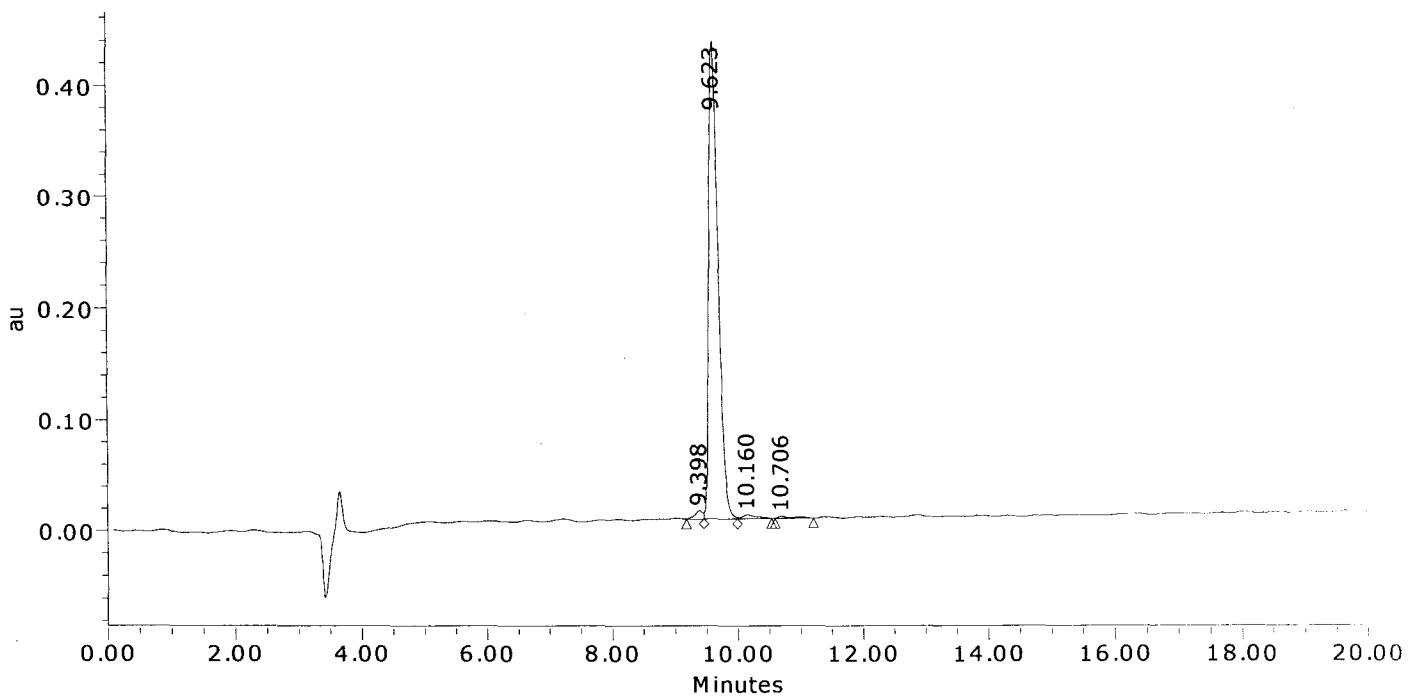
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344995/SW05195T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 10:59:41 CST  
Sample ID: 344995 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344995\_A Final\_PDA  
Date Acquired: 5/26/2008 14:39:26 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.4	9.398	63724	7485
2	96.6	9.623	4431554	428740
3	1.3	10.160	57980	3599
4	0.7	10.706	32423	2000
Sum	100.00		4585682	441824.0

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344995

Lot # : SW05195T

Chemist : Yan Li

Date Acquired :

5/26/2008 14:39:26 CST

Expected MS :

MW: 1722.2

Acq. Method Set :

Import

Processing Method :

344995\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

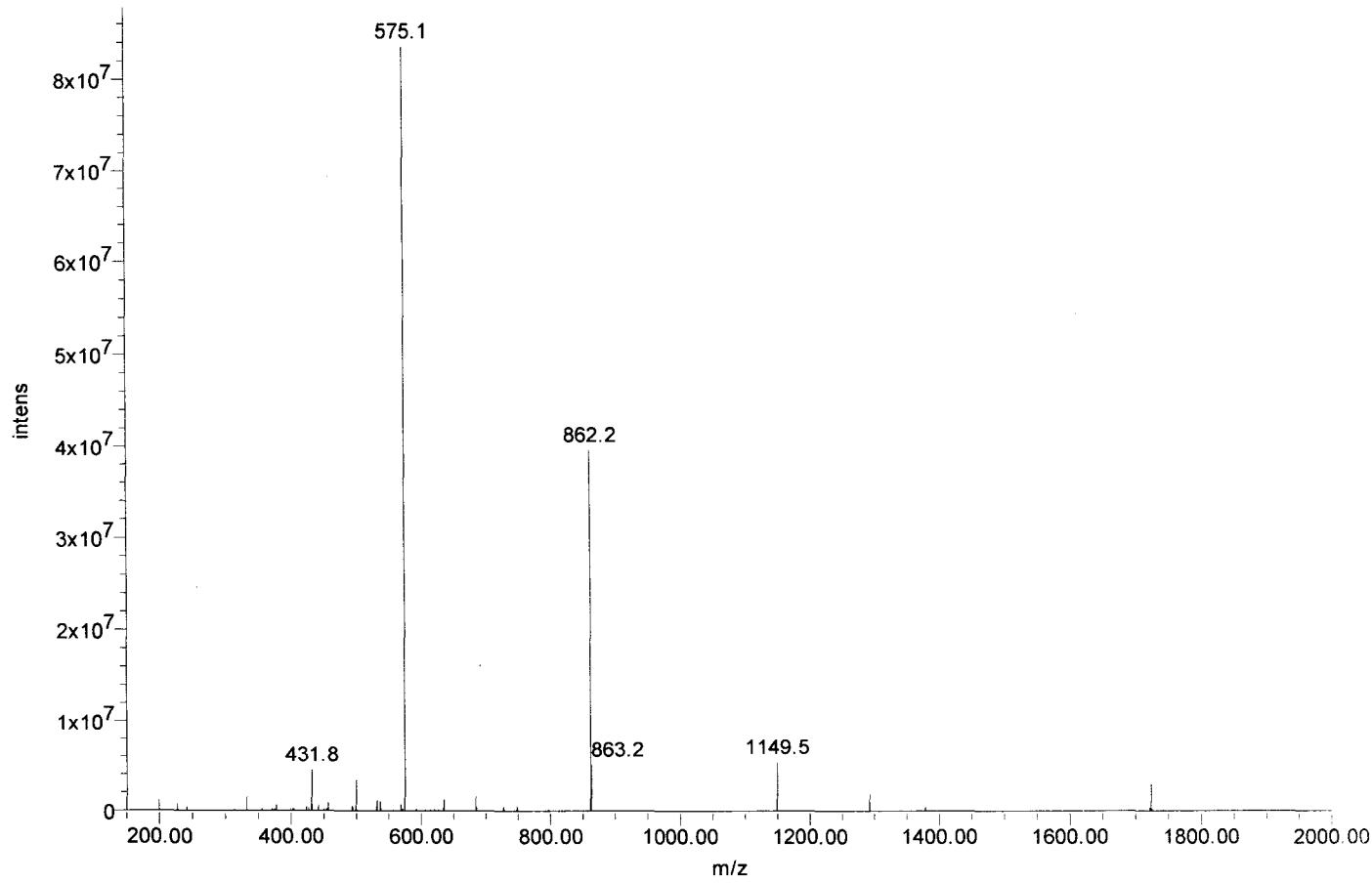
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #256  
GTDIKVVP RRKAKII  
Cat#5965 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344996                   **Lot #:** SW05197T

**Sequence:** Gly-Thr-Asp-Ile-Lys-Val-Val-Pro-Arg-Arg-Lys-Ala-Lys-Ile-Ile

**Molecular Weight:** 1694.1 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 96.4%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 67.9%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.02	Gly		1.00	0.99		Pro	1.00	0.89	
Arg	2.00	2.00	Ile		3.00	2.53		Thr	1.00	1.08	
Asx	1.00	1.01	Lys		3.00	2.97		Val	2.00	1.64	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/29/08  
Quality Control Department

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Tel: 760-597-8820 Fax: 760-597-8816

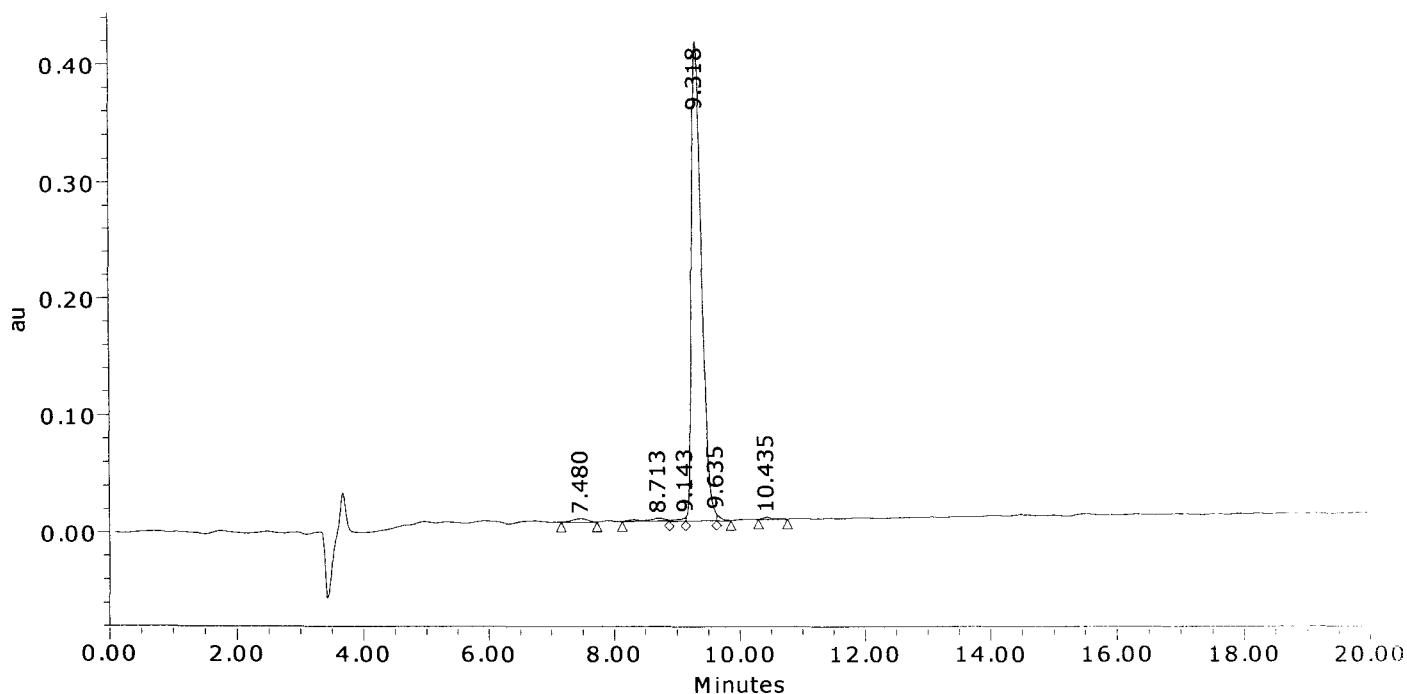
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 344996/SW05197T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 11:09:25 CST  
Sample ID: 344996 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344996\_A Final\_PDA  
Date Acquired: 5/26/2008 15:17:02 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 17% -37% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li

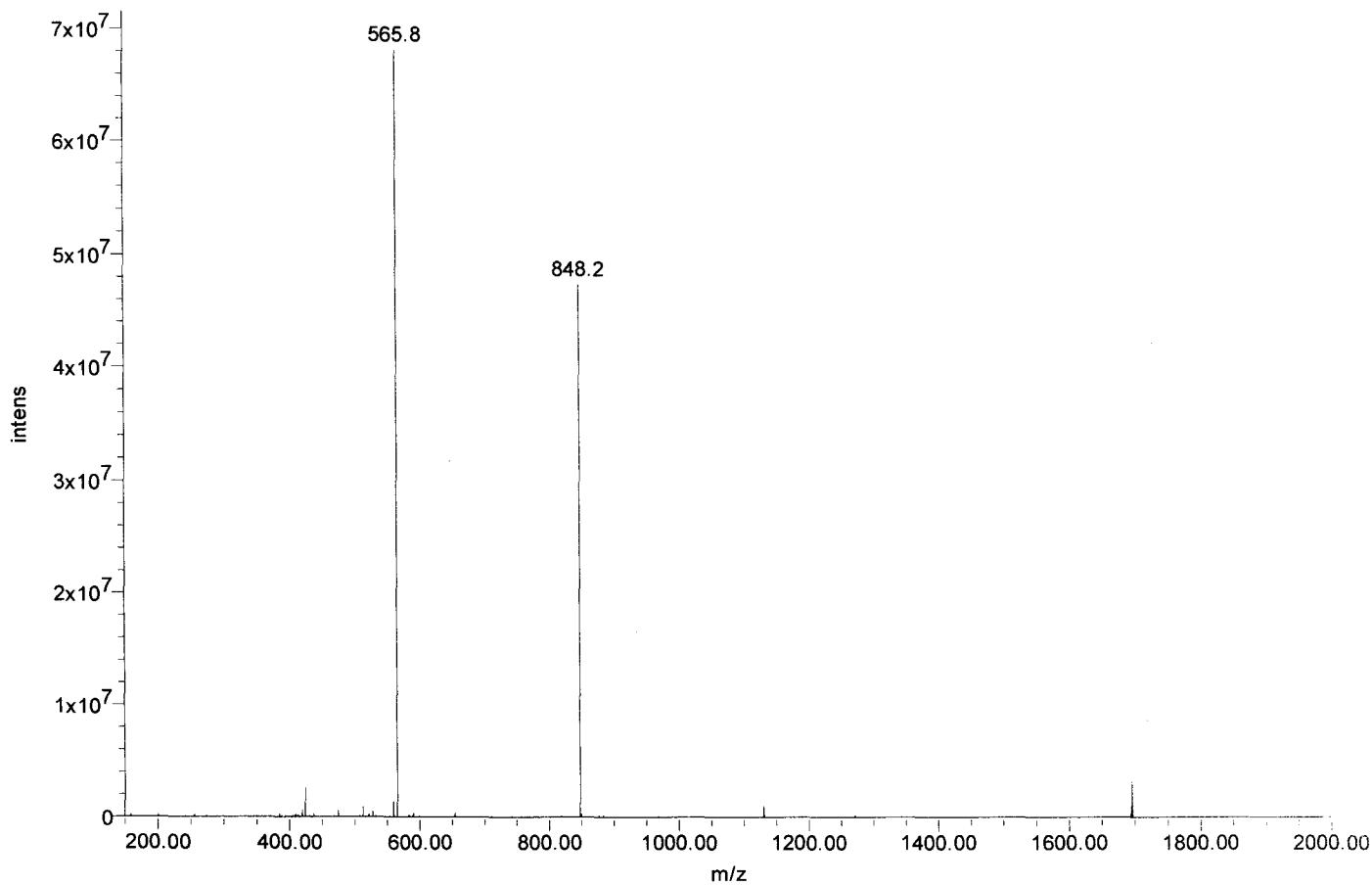


	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.0	7.480	47679	2894
2	1.1	8.713	53284	2469
3	0.5	9.143	23970	3345
4	96.4	9.318	4532199	409464
5	0.5	9.635	23145	5783
6	0.4	10.435	18810	1807
Sum	100.00		4699087	425762.8

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344996      **Lot # :** SW05197T      **Chemist :** Yan Li

Date Acquired : 5/26/2008 15:17:02 CST  
Expected MS : MW: 1694.1  
Acq. Method Set : Import  
Processing Method : 344996\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #257  
KVVPRRKAKIILDYG  
Cat#5966 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 344997                   **Lot #:** SW05192T  
**Sequence:** Lys-Val-Val-Pro-Arg-Arg-Lys-Ala-Lys-Ile-Ile-Lys-Asp-Tyr-Gly  
**Molecular Weight:** 1771.2 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 96.6%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 66.4%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

**Amino Acid Analysis:**

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.00	Gly	1.00	1.00		Pro	1.00	1.03
Arg	2.00	1.95	Ile	2.00	1.45	*1	Tyr	1.00	0.97
Asx	1.00	1.09	Lys	4.00	3.95		Val	2.00	1.65

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/28/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
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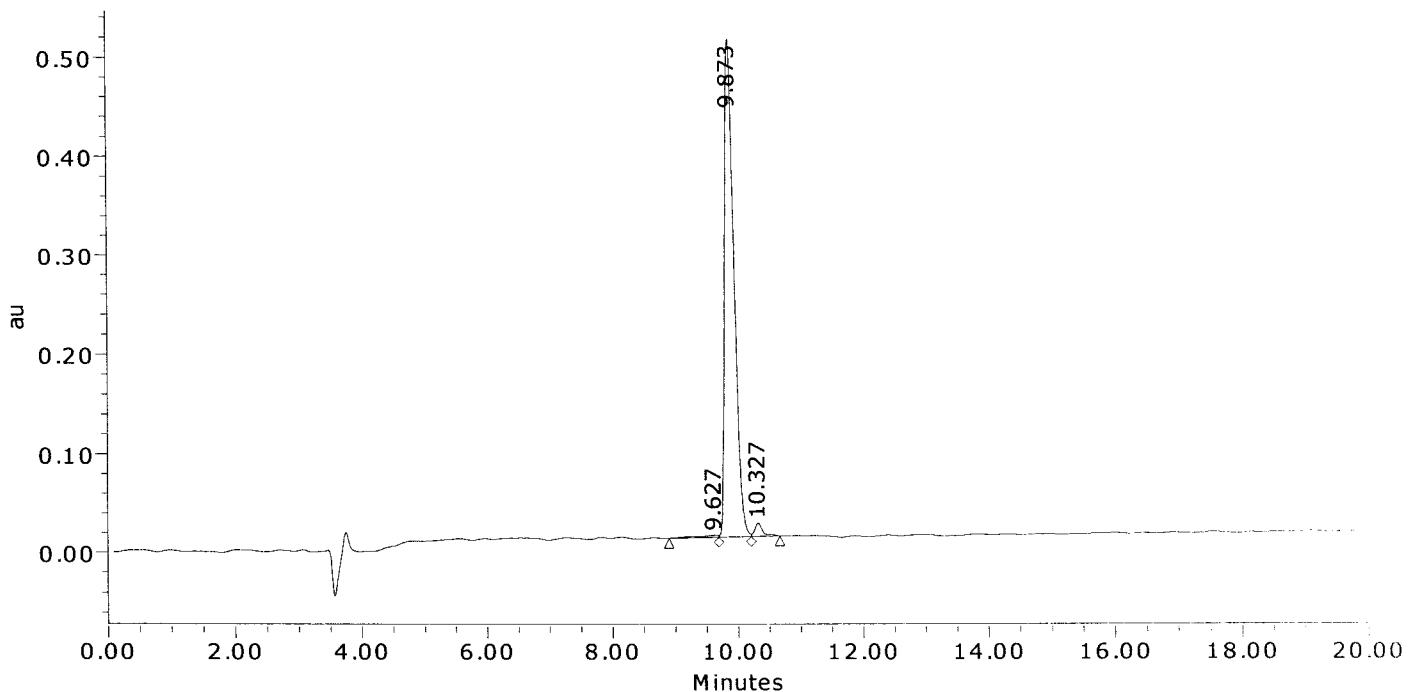
# American Peptide Company, Inc.

## HPLC Analysis Report

**Product Number/Lot Number: 344997/SW05192T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/27/2008 12:50:17 CST
Sample ID:	344997	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	344997_A Final_PDA
Date Acquired:	5/26/2008 22:38:48 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 13% -33% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li

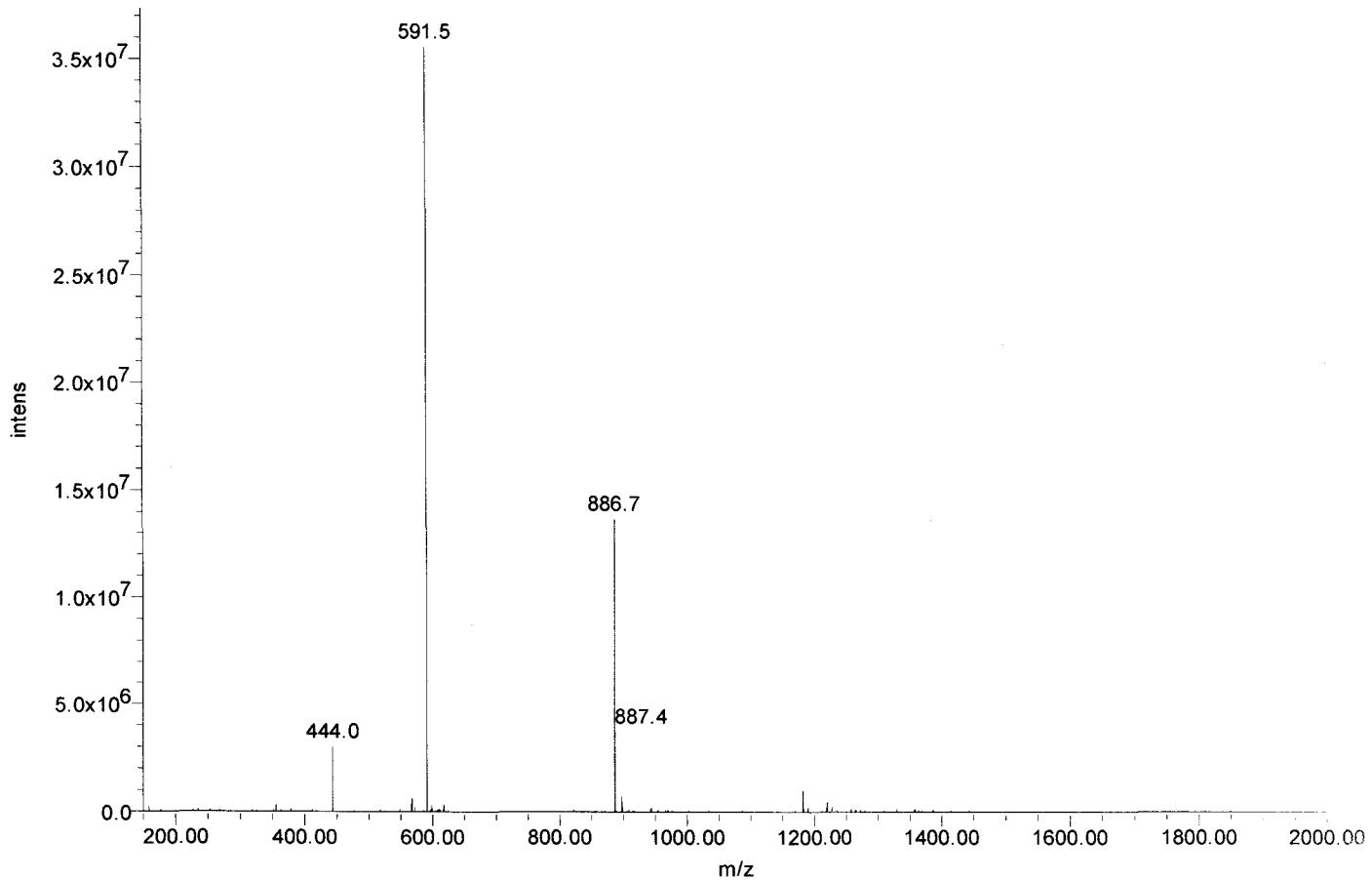


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	1.1	9.627	57676	2204
2	96.6	9.873	5224661	502652
3	2.3	10.327	124169	13767
<b>Sum</b>	<b>100.00</b>		<b>5406506</b>	<b>518623.9</b>

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 344997      **Lot # :** SW05192T      **Chemist :** Yan Li

Date Acquired : 5/27/2008 16:45:00 CST  
Expected MS : MW: 1771.2  
Acq. Method Set : Import  
Processing Method : 344997\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 1.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #258  
RRKAKIIKDYGGSKE  
Cat#5967 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344998                   **Lot #:** SW05186T

**Sequence:** Arg-Arg-Lys-Ala-Lys-Ile-Ile-Lys-Asp-Tyr-Gly-Gly-Lys-Glu

**Molecular Weight:** 1719.0 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.6%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 66.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/23/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.04		Glx	1.00	1.07		Lys	4.00	3.99	
Arg	2.00	2.00		Gly	3.00	3.00		Tyr	1.00	0.96	
Asx	1.00	1.05		Ile	2.00	1.38	*1				

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/28/08  
Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

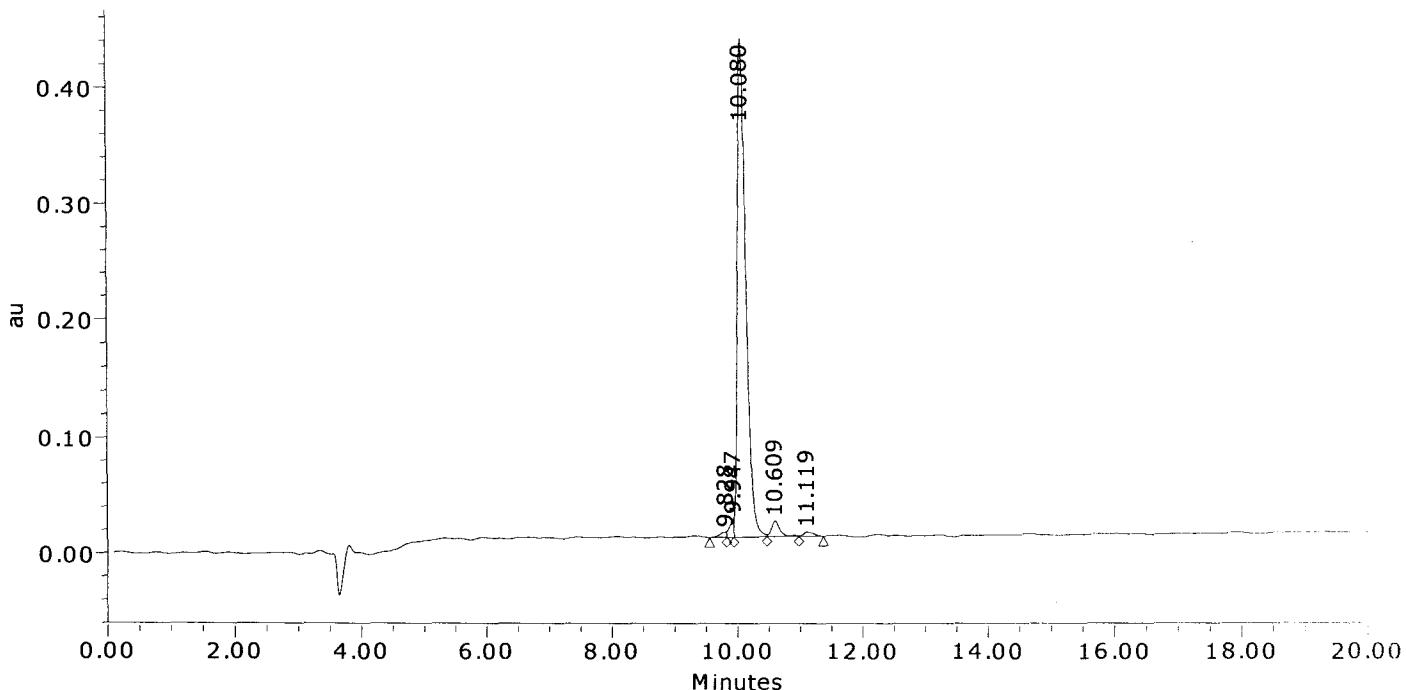
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344998/SW05186T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/26/2008 14:40:54 CST  
Sample ID: 344998 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344998\_A\_Final\_PDA  
Date Acquired: 5/24/2008 1:34:29 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 11% -31% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	0.8	9.828	32667	4607
2	1.6	9.947	70239	16033
3	93.6	10.080	4025917	427881
4	3.0	10.609	127161	13334
5	1.0	11.119	43012	3719
Sum	100.00		4298996	465573.6

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

344998

Lot # : SW05186T

Chemist : Yan Li

Date Acquired :

5/24/2008 1:34:29 CST

Expected MS :

MW: 1719.0

Acq. Method Set :

Import

Processing Method :

344998\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

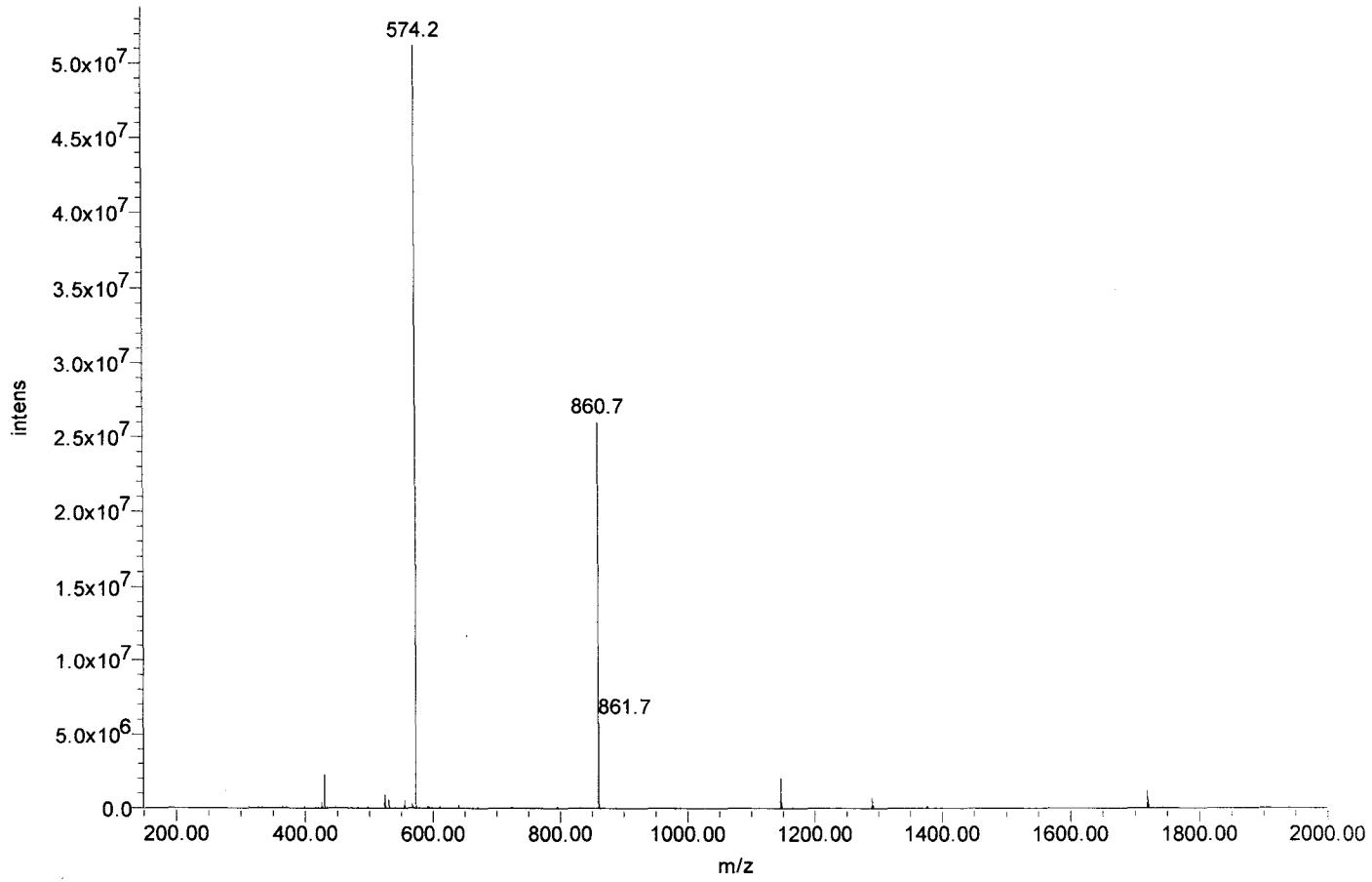
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





AMERICAN PEPTIDE

## Certificate of Analysis

SIVmac239 Pol #259  
KIIKDYGGGKEVDSS  
Cat#5968 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 344999                   **Lot #:** SW05196T

**Sequence:** Lys-Ile-Ile-Lys-Asp-Tyr-Gly-Gly-Gly-Lys-Glu-Val-Asp-Ser-Ser

**Molecular Weight:** 1595.8 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 93.0%  
(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 72.7%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

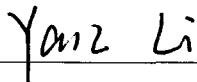
	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		Ile	2.00	1.34	*1	Tyr	1.00	0.91	
Glx	1.00	1.12		Lys	3.00	2.88		Val	1.00	0.96	
Gly	3.00	2.95		Ser	2.00	1.63					

\*1 Ile-Ile bond was only partially hydrolyzed during hydrolysis.

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By:

  
Date: 05/29/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

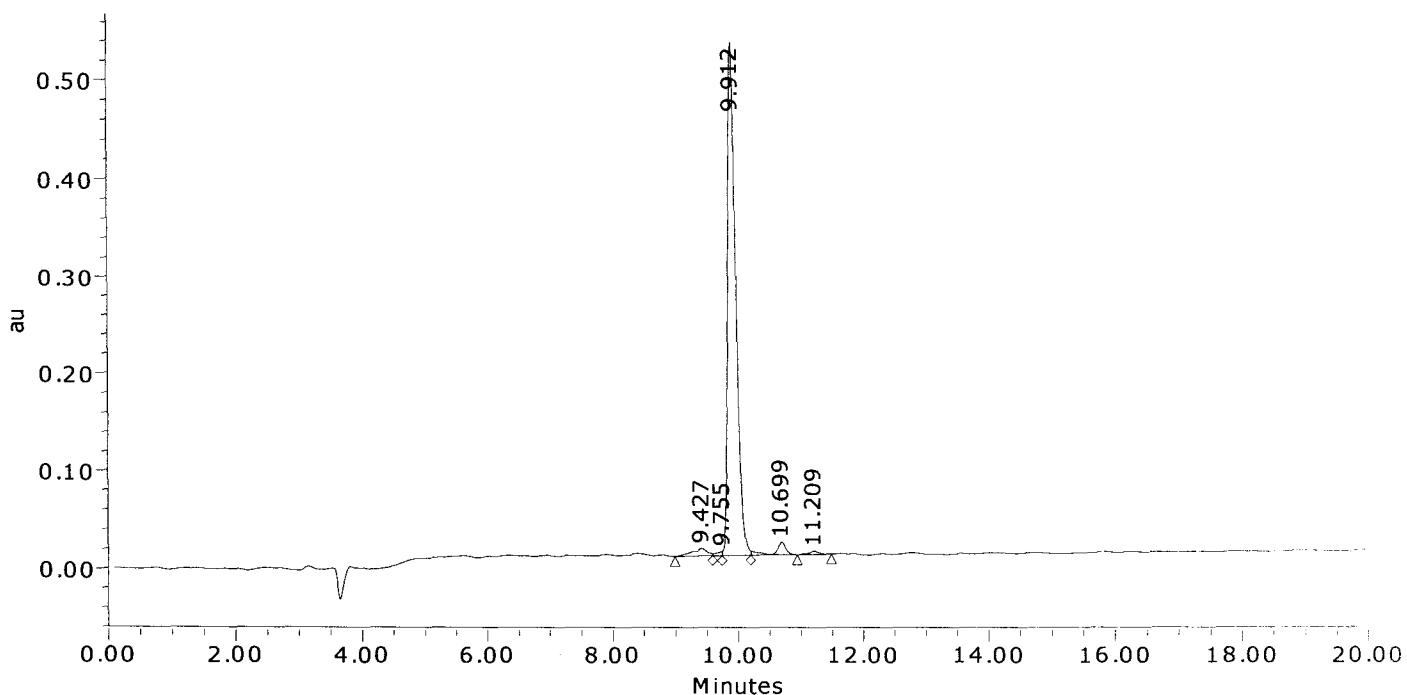
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 344999/SW05196T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 12:56:49 CST  
Sample ID: 344999 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 344999\_A Final\_PDA  
Date Acquired: 5/26/2008 23:18:24 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

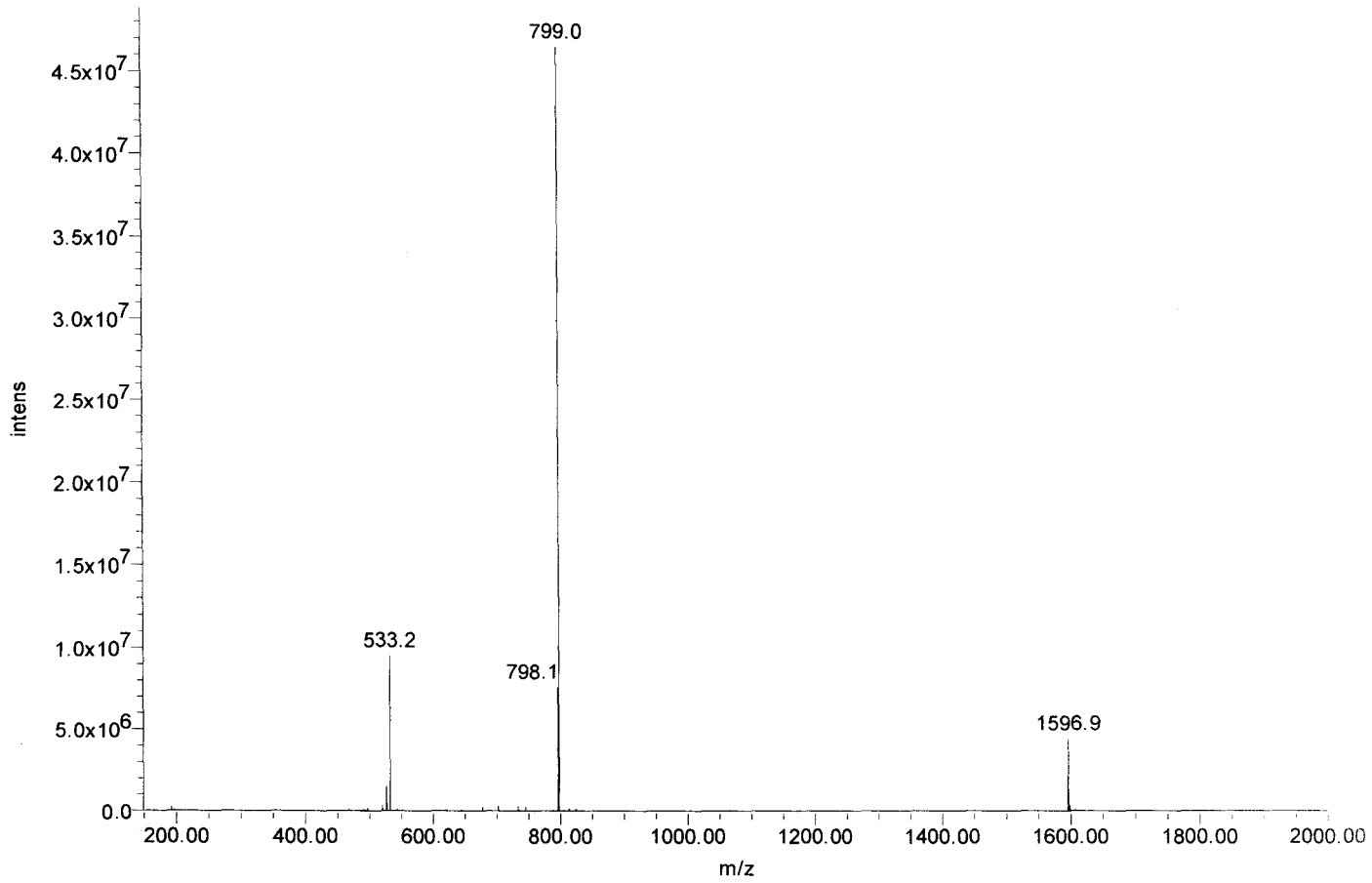
Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 11%-31% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	2.6	9.427	131537	7641
2	0.6	9.755	28357	4556
3	93.0	9.912	4707696	525379
4	3.1	10.699	154830	12916
5	0.8	11.209	38605	3368
Sum	100.00		5061025	553860.0

**American Peptide Company, Inc.**  
**MS Analysis Report**

<b>Sample ID:</b>	<b>344999</b>	<b>Lot # :</b> SW05196T	<b>Chemist :</b> Yan Li
<b>Date Acquired :</b>	5/26/2008 23:18:24 CST		
<b>Expected MS:</b>	MW: 1595.8		
<b>Acq. Method Set :</b>	Import		
<b>Processing Method :</b>	344999_A Final_MS		
<b>Data Path :</b>	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data		
<b>Run Time :</b>	25.0 Minutes		
<b>Flow rate :</b>	1.0 mL/min		
<b>Buffers :</b>	A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile		
<b>Instruments :</b>	Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000		





## Certificate of Analysis

SIVmac239 Pol #260  
DYGGGKEVDSSSIHME  
Cat#5969 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 345000                   **Lot #:** SW05202T  
**Sequence:** Asp-Tyr-Gly-Gly-Gly-Lys-Glu-Val-Asp-Ser-Ser-Ser-His-Met-Glu  
**Molecular Weight:** 1597.6 amu  
**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 84.4%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 74.1%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		His	1.00	0.97		Ser	3.00	2.47	
Glx	2.00	2.23		Lys	1.00	0.97		Tyr	1.00	0.92	
Gly	3.00	2.79		Met	1.00	0.97		Val	1.00	0.95	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

*Yan Li*

Date: 05/28/08

Quality Control Department

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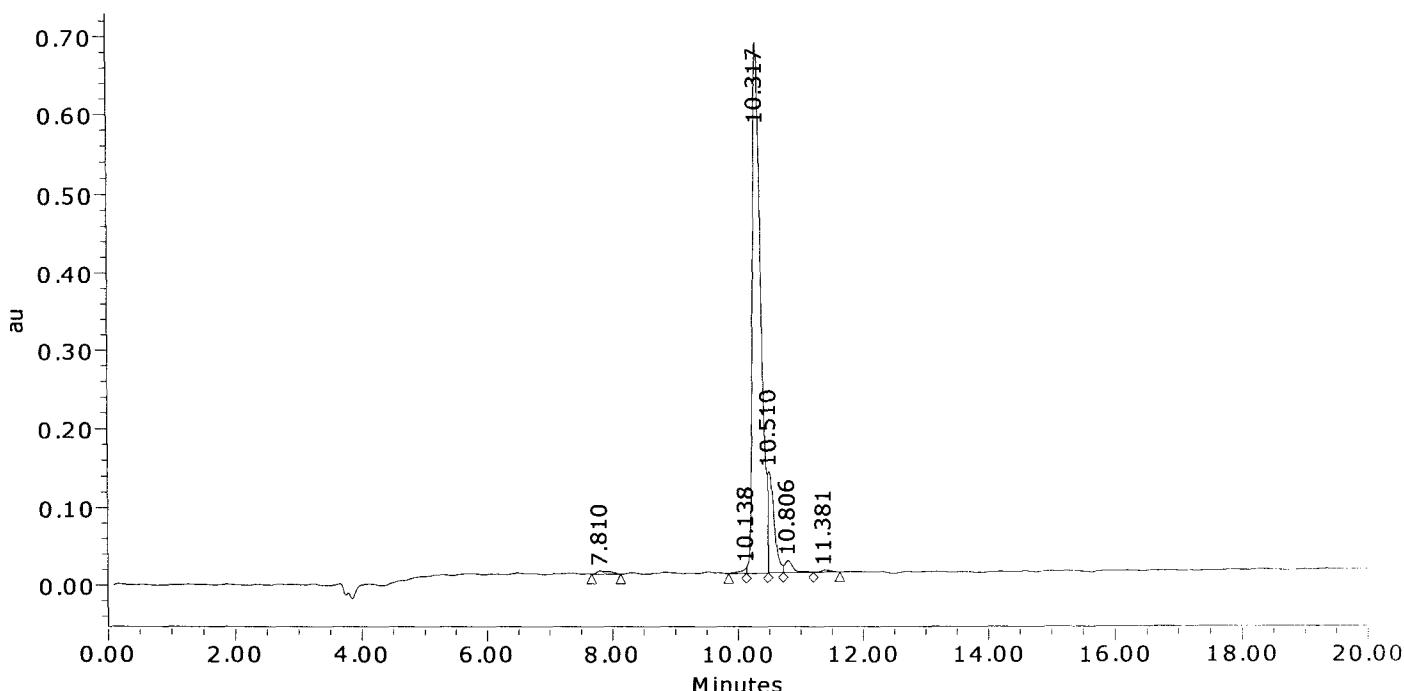
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 345000/SW05202T**

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 13:12:34 CST  
Sample ID: 345000 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 345000\_A\_Final\_PDA  
Date Acquired: 5/27/2008 0:37:31 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 9% -29% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	0.8	7.810	58766	4280
2	0.5	10.138	37606	7462
3	84.4	10.317	6266107	678131
4	12.0	10.510	891743	129751
5	2.0	10.806	147053	15559
6	0.4	11.381	27398	2495
<b>Sum</b>	<b>100.00</b>		<b>7428673</b>	<b>837677.6</b>

# American Peptide Company, Inc.

## MS Analysis Report

Sample ID:

345000

Lot # : SW05202T

Chemist : Yan Li

Date Acquired :

5/27/2008 0:37:31 CST

Expected MS :

MW: 1597.6

Acq. Method Set :

Import

Processing Method :

345000\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

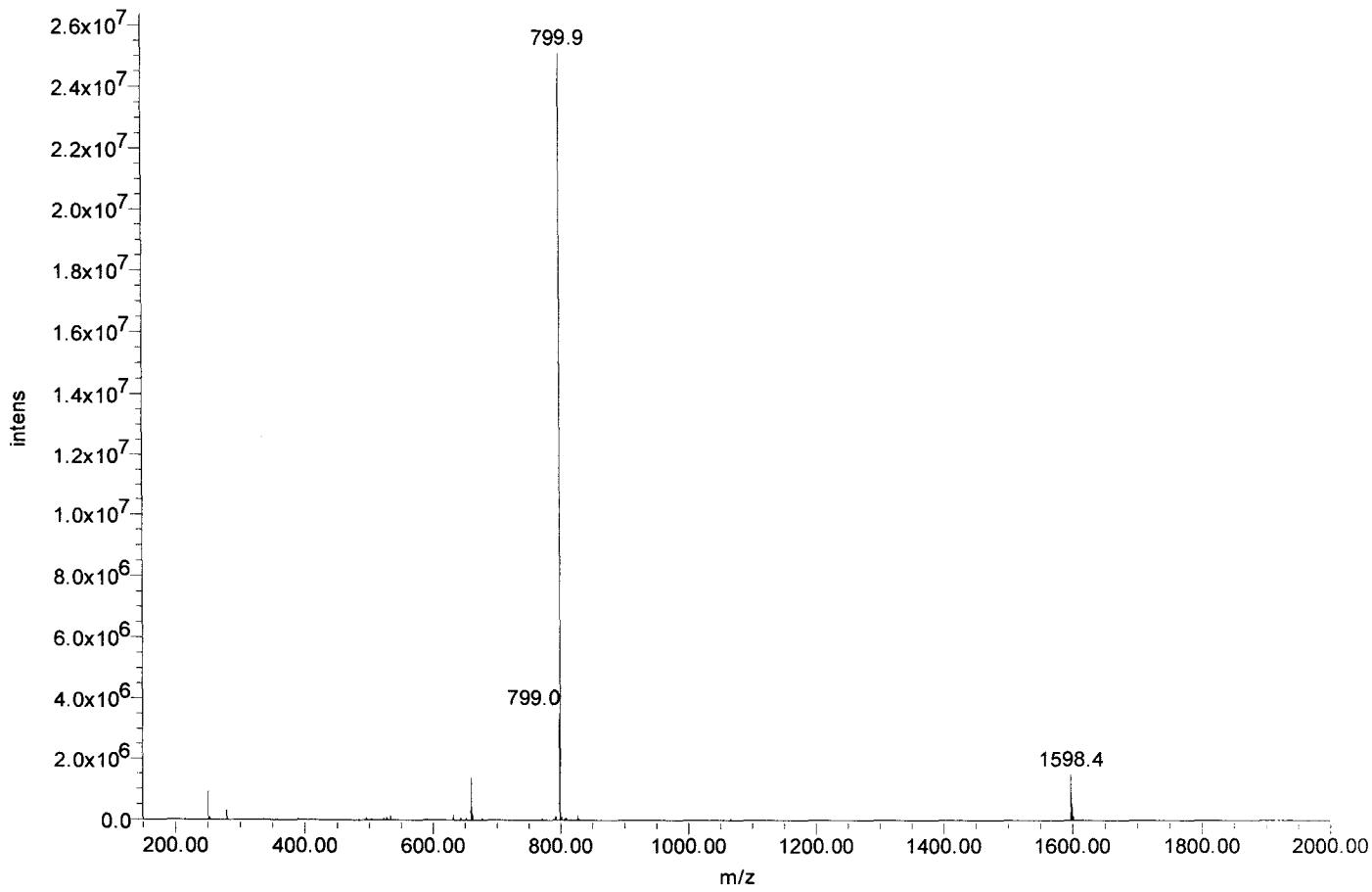
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #261  
GKEVDSSSHMEDTGE  
Cat#5970 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide

**Product #:** 345001                   **Lot #:** SW05257T

**Sequence:** Gly-Lys-Glu-Val-Asp-Ser-Ser-His-Met-Glu-Asp-Thr-Gly-Glu

**Molecular Weight:** 1607.6 amu

**Mass Spectra Analysis:** Electrospray " Exhibits correct MW "  
(see attached MS spectrogram)

**HPLC Analysis:** Peptide Purity: 95.1%

(see attached HPLC chromatogram)

**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water

**Appearance:** White lyophilized powder

**Peptide Content:** 78.0%

**Counter Ion:** Trifluoroacetate

**Date of Mfg:** 05/30/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Asx	2.00	2.00		His	1.00	0.97		Ser	3.00	2.50	
Glx	3.00	3.22		Lys	1.00	0.97		Thr	1.00	0.98	
Gly	2.00	1.95		Met	1.00	0.97		Val	1.00	0.98	

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: \_\_\_\_\_

A handwritten signature in black ink that reads 'Yan Li'.

Date: 06/05/08

Quality Control Department

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Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

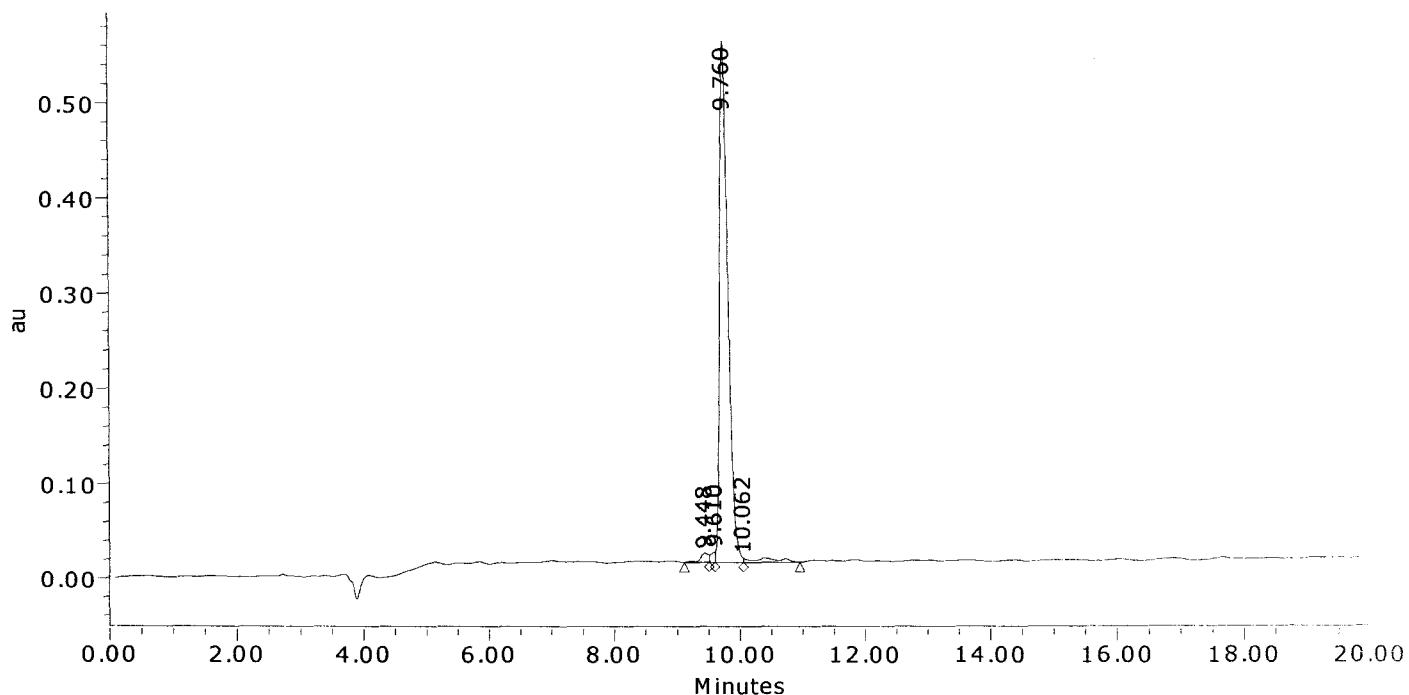
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 345001/SW05257T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/30/2008 13:39:11 CST  
Sample ID: 345001 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 345001\_A Final\_PDA  
Date Acquired: 5/30/2008 13:02:27 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 8% -28% Buffer B in 20 min.; Inj Vol.: 10 uL  
Analyst: Yan Li



	Result (%)	Ret Time (min)	Peak Area	Peak Height (μV)
1	1.6	9.448	82667	9566
2	0.9	9.610	50218	10898
3	95.1	9.760	5053993	546939
4	2.4	10.062	127300	4342
Sum	100.00		5314178	571744.4

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:**

**345001**

**Lot # : SW05257T**

**Chemist : Yan Li**

Date Acquired :

5/30/2008 13:02:27 CST

Expected MS :

MW: 1607.6

Acq. Method Set :

Import

Processing Method :

345001\_A Final\_MS

Data Path :

My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data

Run Time :

25.0 Minutes

Flow rate :

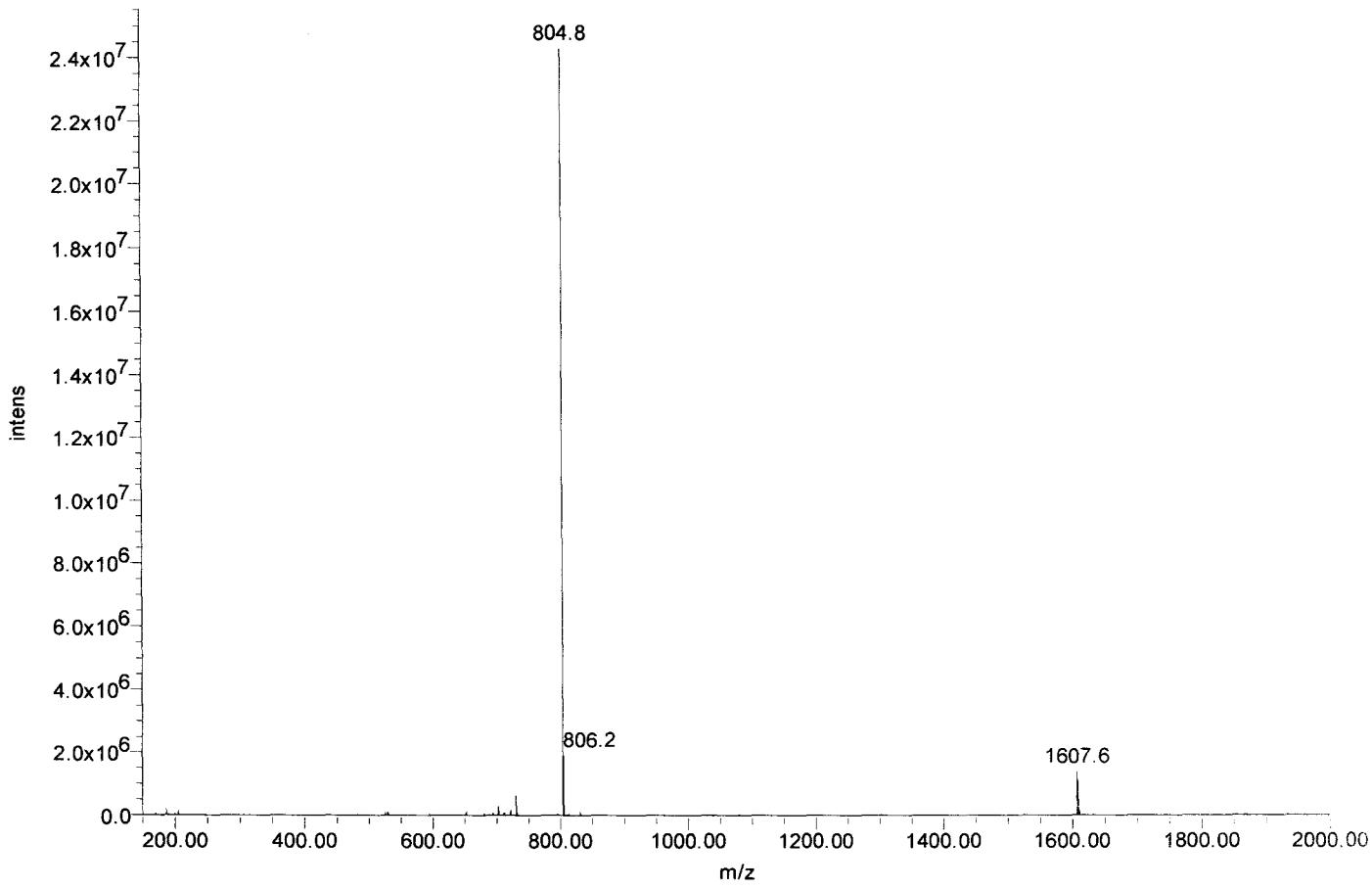
1.0 mL/min

Buffers :

A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile

Instruments :

Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

SIVmac239 Pol #262  
DSSSHMEDTGEAREV  
Cat#5971 Lot#080132  
Net Wt. 1mg

**Product Name:** Custom Peptide  
**Product #:** 345002                   **Lot #:** SW05201T  
**Sequence:** Asp-Ser-Ser-Ser-His-Met-Glu-Asp-Thr-Gly-Glu-Ala-Arg-Glu-Val  
**Molecular Weight:** 1649.7 amu  
**Mass Spectra Analysis:** Electrospray "Exhibits correct MW"  
(see attached MS spectrogram)  
**HPLC Analysis:** Peptide Purity: 89.8%  
(see attached HPLC chromatogram)  
**Solubility:** 1.0 mg/mL in 10% Acetonitrile in water  
**Appearance:** White lyophilized powder  
**Peptide Content:** 71.5%  
**Counter Ion:** Trifluoroacetate  
**Date of Mfg:** 05/26/08

### Amino Acid Analysis:

	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>		<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	1.00	1.03		Gly	1.00	1.03		Ser	3.00	2.44	
Arg	1.00	1.04		His	1.00	0.99		Thr	1.00	1.01	
Asx	2.00	2.00		Met	1.00	0.99		Val	1.00	1.00	
Glx	3.00	3.45									

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

Quality Assurance By: Yan Li Date: 05/28/08  
Quality Control Department

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1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6311 Fax: 81-297-45-6353

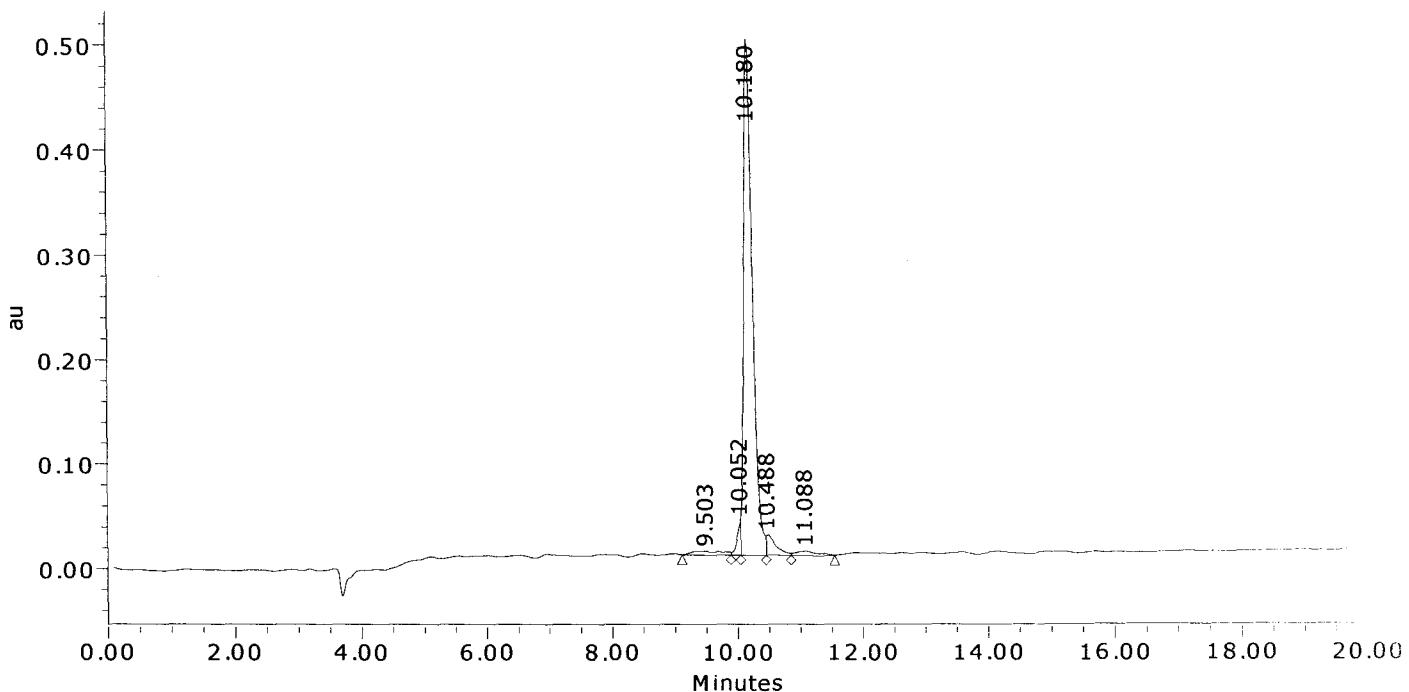
# American Peptide Company, Inc.

## HPLC Analysis Report

Product Number/Lot Number: 345002/SW05201T

Data File: My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data  
Channel Name: PDA 215.0 nm Date Processed: 5/27/2008 13:03:24 CST  
Sample ID: 345002 Time Calculated: Result # 1  
Instrument (Inj): Alliance 2695; PDA 2996; ZQ4000 Processing Method: 345002\_A Final\_PDA  
Date Acquired: 5/26/2008 23:57:56 CST Run Mode: Analysis  
Acq. Method Set: Import Peak Measurement: Peak Area  
Run Time: 25.0 Minutes Calculation Type: Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 10% -30% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L.  
Analyst: Yan Li

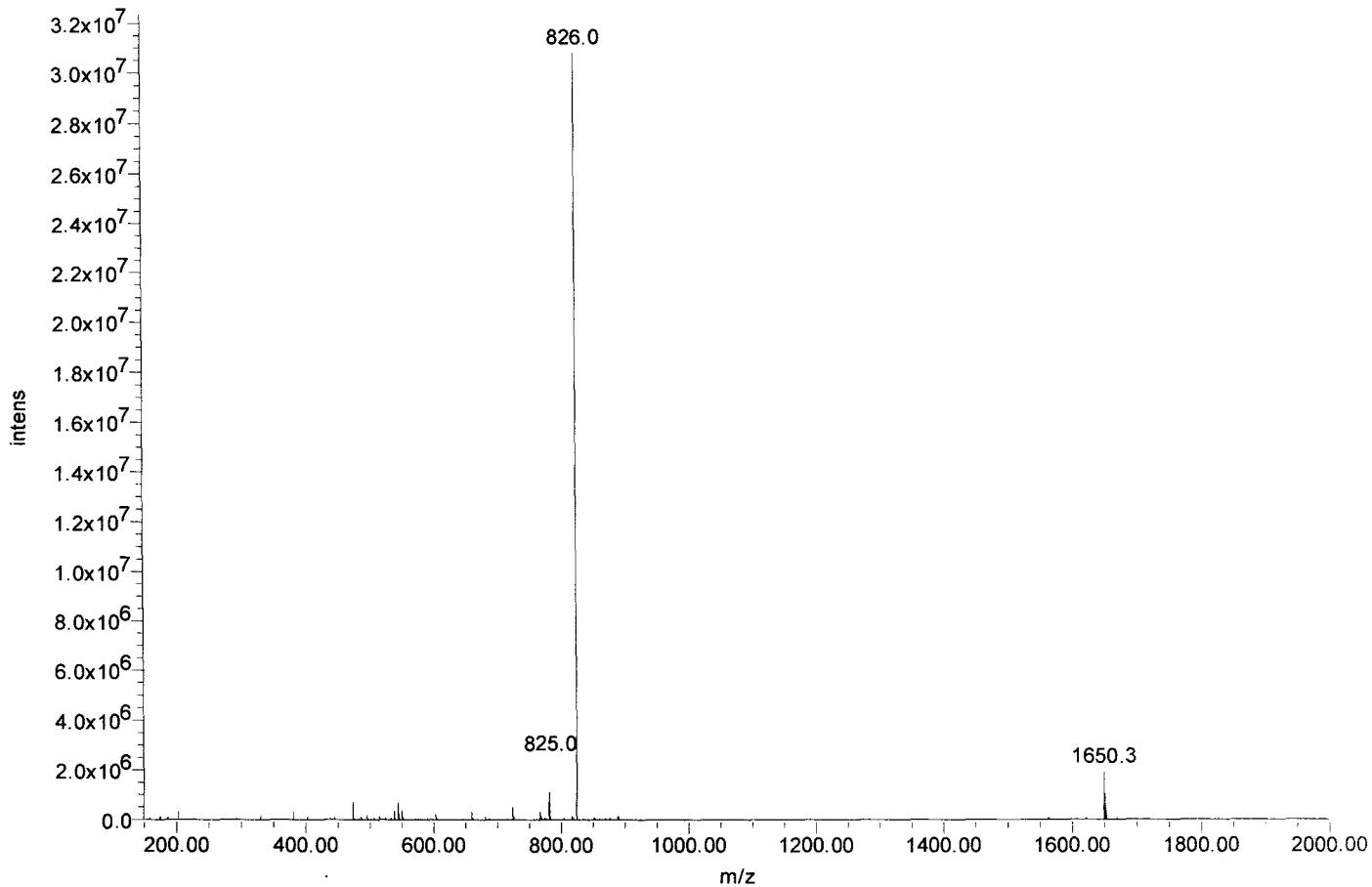


	Result (%)	Ret Time (min)	Peak Area	Peak Height ( $\mu$ V)
1	2.3	9.503	123549	3440
2	2.3	10.052	122273	32995
3	89.8	10.180	4789045	492685
4	3.9	10.488	209185	19437
5	1.7	11.088	91464	3919
Sum	100.00		5335516	552476.1

**American Peptide Company, Inc.**  
**MS Analysis Report**

**Sample ID:** 345002      **Lot # :** SW05201T      **Chemist :** Yan Li

Date Acquired : 5/26/2008 23:57:56 CST  
Expected MS : MW: 1649.7  
Acq. Method Set : Import  
Processing Method : 345002\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000





## Certificate of Analysis

**SIVmac239 Pol #263**  
HMEDTGEAREVA  
Cat#5972 Lot#080132  
Net Wt. 1mg

### **Amino Acid Analysis:**

<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>	<u>Calc.</u>	<u>Found</u>	<u>Remark</u>
Ala	2.00	1.98	Glx	3.00	3.31	Met	1.00	0.98
Arg	1.00	1.00	Gly	1.00	1.00	Thr	1.00	1.01
Asx	1.00	1.00	His	1.00	0.98	Val	1.00	0.96

**Remarks:** Not for human use, research purposes only.

**IMPORTANT:** Store in Freezer (-20 degree Celsius) immediately upon arrival. Please follow the recommended solubility information provided above; no guarantees per other methods.

**Quality Assurance By:** Varli L **Date:** 05/28/08  
**Quality Control Department**

Quality Control Department

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Vista, CA 92081 USA  
Tel: 760-507-0800 Fax: 760-507-0816

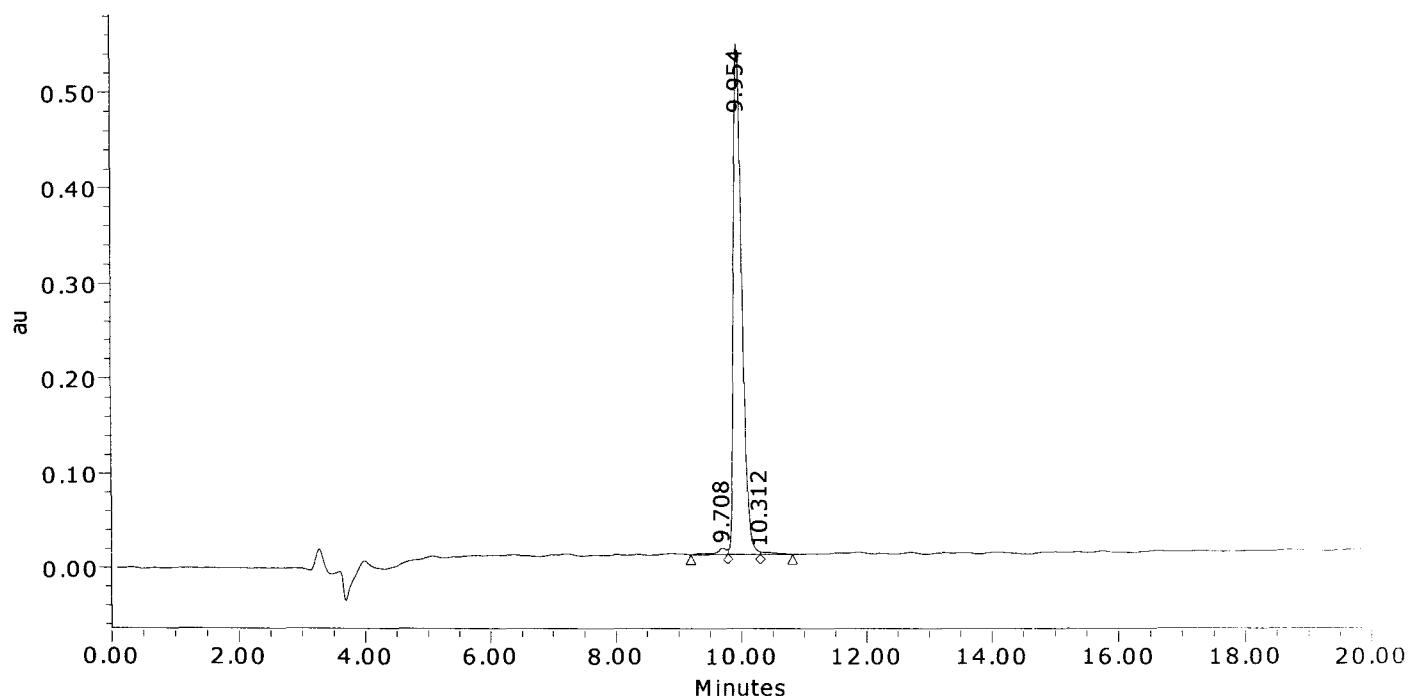
1-2-1 Kubogaoka  
Moriya, Ibaraki 302-0104 Japan  
Tel: 81-297-45-6211 Fax: 81-297-45-6252

**American Peptide Company, Inc.**  
**HPLC Analysis Report**

**Product Number/Lot Number: 345003/SW05181T**

Data File:	My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\Data		
Channel Name:	PDA 215.0 nm	Date Processed:	5/26/2008 14:54:15 CST
Sample ID:	345003	Time Calculated:	Result # 1
Instrument (Inj):	Alliance 2695; PDA 2996; ZQ4000	Processing Method:	345003_A Final_PDA
Date Acquired:	5/24/2008 2:51:47 CST	Run Mode:	Analysis
Acq. Method Set:	Import	Peak Measurement:	Peak Area
Run Time:	25.0 Minutes	Calculation Type:	Percent

Wavelength: 215 nm; Flow rate: 1.0 mL/min.; Buffer A: 0.1% TFA in Water, Buffer B: 0.1% TFA in Acetonitrile.  
Column: TSK-GEL ODS-120T C18, 4.6 x 250 mm, 5 micron; Gradient (Linear): 10% -30% Buffer B in 20 min.; Inj Vol.: 10  $\mu$ L  
Analyst: Yan Li



	<b>Result (%)</b>	<b>Ret Time (min)</b>	<b>Peak Area</b>	<b>Peak Height (<math>\mu</math>V)</b>
1	1.8	9.708	92197	7425
2	97.5	9.954	5041402	537384
3	0.7	10.312	38676	2685
<b>Sum</b>	<b>100.00</b>		<b>5172274</b>	<b>547494.4</b>

# American Peptide Company, Inc.

## MS Analysis Report

**Sample ID:** 345003      **Lot # :** SW05181T      **Chemist :** Yan Li

Date Acquired : 5/24/2008 2:51:47 CST  
Expected MS : MW: 1344.4  
Acq. Method Set : Import  
Processing Method : 345003\_A Final\_MS  
Data Path : My Network Places\System (C) on MassLynx V4.1 Workstation (Waters -lmfl2kh)\data  
Run Time : 25.0 Minutes  
Flow rate : 1.0 mL/min  
Buffers : A: 0.1% TFA in Water; B: 0.1% TFA in Acetonitrile  
Instruments : Waters LC-MS: Alliance 2695; PDA 2996; Micromass ZQ4000

