

Peptide Array, *Mycobacterium tuberculosis* TB10.4 Protein

Catalog No. NR-34826

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Product Description: The 21-peptide array spans the TB10.4 (ESAT-6-like *esxH*; CFP-7) protein of the bacterium *Mycobacterium tuberculosis* ([UniProt: POA568](http://www.uniprot.org/entry/POA568)). Peptides are 15- or 16-mers, with 11 amino acid overlaps.

Lot: T6195-1 to T6195-21

Note: The lot numbers of the individual peptides are shown on the vial labels and in Table 1 below.

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by MALDI-TOF
- Counter Ion Trifluoroacetate

Peptide-specific information is shown in the two tables below.

Table 1								
Peptide	Lot #	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
1 of 21	T6195-1	2/14/2012	15	1-MSQIMYNYPAMLGHA-15	1727.08	0.73	82.9%	88.3%
2 of 21	T6195-2	2/14/2012	15	5-MYNYPAMLGHAGDMA-19	1641.94	0.59	100.0%	87.8%
3 of 21	T6195-3	2/14/2012	15	9-PAMLGHAGDMAGYAG-23	1418.65	0.43	97.3%	86.2%
4 of 21	T6195-4	2/14/2012	15	13-GHAGDMAGYAGTLQS-27	1435.56	0.28	94.5%	86.3%
5 of 21	T6195-5	2/14/2012	15	17-DMAGYAGTLQSLGAE-31	1483.65	0.34	99.0%	86.7%
6 of 21	T6195-6	2/14/2012	15	21-YAGTLQSLGAEIAVE-35	1521.72	0.47	90.0%	87.0%
7 of 21	T6195-7	2/14/2012	15	25-LQSLGAEIAVEQAAL39	1512.76	0.51	81.2%	86.9%
8 of 21	T6195-8	2/14/2012	15	29-GAEIAVEQAALQSAW-43	1543.75	0.45	88.0%	87.1%
9 of 21	T6195-9	2/14/2012	15	33-AVEQAALQSAWQGDT-47	1574.71	0.3	81.4%	87.4%
10 of 21	T6195-10	2/14/2012	15	37-AALQSAWQGDTGITY-51	1581.74	0.46	80.8%	87.4%
11 of 21	T6195-11	2/14/2012	15	41-SAWQGDTGITYQAWQ-55	1711.84	0.46	98.4%	88.2%
12 of 21	T6195-12	2/14/2012	15	45-GDTGITYQAWQAQWN-59	1738.86	0.5	85.6%	88.4%
13 of 21	T6195-13	2/14/2012	15	49-ITYQAWQAQWNQAME-63	1868.10	0.58	98.9%	89.1%
14 of 21	T6195-14	2/14/2012	15	53-AWQAQWNQAMEDLVR-67	1846.09	0.47	100.0%	89.0%
15 of 21	T6195-15	2/14/2012	15	57-QWNQAMEDLVRAYHA-71	1832.06	0.41	97.4%	84.3%
16 of 21	T6195-16	2/14/2012	15	61-AMEDLVRAYHAMSST-75	1681.95	0.34	96.7%	83.1%
17 of 21	T6195-17	2/14/2012	15	65-LVRAYHAMSSTHEAN-79	1686.90	0.36	97.9%	78.7%
18 of 21	T6195-18	2/14/2012	15	69-YHAMSSTHEANTMAM-83	1681.93	0.42	88.6%	83.1%
19 of 21	T6195-19	2/14/2012	15	73-SSTHEANTMAMMARD-87	1652.89	0.22	93.0%	82.9%
20 of 21	T6195-20	2/14/2012	15	77-EANTMAMMARDTAEA-91	1612.89	0.22	83.9%	87.6%
21 of 21	T6195-21	2/14/2012	16	81-MAMMARDTAEAAKWGG-96	1697.06	0.27	94.0%	83.2%

^a% full-length
^bRemainder is salt and water

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)		
1 of 21	Expected	2.00		1.00		1.00	1.00	1.00	1.00	1.00		3.00		1.00	1.00				2.00		
	Actual	1.92		1.05		1.01	1.01	0.97	0.99	1.06		2.67		1.00	0.83				1.73		
2 of 21	Expected	3.00		2.00			2.00	1.00		1.00		3.00		1.00					2.00		
	Actual	2.81		1.95			2.04	1.04		1.00		2.64		1.01					1.73		
3 of 21	Expected	4.00		1.00			4.00	1.00		1.00		2.00		1.00					1.00		
	Actual	3.91		1.02			4.08	1.10		1.00		1.74		1.00					0.88		
4 of 21	Expected	3.00		1.00		1.00	4.00	1.00		1.00		1.00			1.00	1.00			1.00		
	Actual	3.00		0.97		1.03	4.07	1.16		1.00		0.88			0.84	1.00			0.91		
5 of 21	Expected	3.00		1.00		2.00	3.00			2.00		1.00			1.00	1.00			1.00		
	Actual	3.00		1.08		2.05	3.00			2.10		0.93			0.91	1.05			0.95		
6 of 21	Expected	3.00				3.00	2.00		1.00	2.00					1.00	1.00			1.00	1.00	
	Actual	2.90				3.08	2.08		1.03	2.00					0.85	0.87			0.83	1.04	
7 of 21	Expected	4.00				4.00	1.00		1.00	3.00					1.00					1.00	
	Actual	3.91				4.01	1.05		0.98	3.00					0.82					1.03	
8 of 21	Expected	5.00				4.00	1.00		1.00	1.00					1.00		1.00			1.00	
	Actual	4.76				4.01	1.08		1.00	1.11					0.86		0.00 ^a			1.10	
9 of 21	Expected	4.00		1.00		4.00	1.00			1.00					1.00	1.00	1.00			1.00	
	Actual	3.72		1.00		3.84	1.15			1.02					0.82	0.99	0.00 ^a			1.01	
10 of 21	Expected	3.00		1.00		2.00	2.00		1.00	1.00					1.00	2.00	1.00			1.00	
	Actual	2.84		1.00		1.97	2.19		1.06	1.01					0.80	1.97	0.00 ^a			1.00	
11 of 21	Expected	2.00		1.00		3.00	2.00		1.00						1.00	2.00	2.00			1.00	
	Actual	1.78		1.00		3.13	1.84		1.07						0.78	1.84	0.00 ^a			1.01	
12 of 21	Expected	2.00		2.00		3.00	2.00		1.00							2.00	2.00			1.00	
	Actual	1.90		1.98		2.99	2.07		1.05							1.87	0.00 ^a			1.00	
13 of 21	Expected	3.00		1.00		5.00			1.00			1.00				1.00	2.00			1.00	
	Actual	3.00		0.95		5.18			1.14			0.87				1.01	0.00 ^a			1.06	
14 of 21	Expected	3.00	1.00	2.00		4.00				1.00		1.00					2.00			1.00	
	Actual	2.79	1.07	2.00		3.92				1.00		0.97					0.00 ^a			0.99	
15 of 21	Expected	3.00	1.00	2.00		3.00		1.00		1.00		1.00					1.00	1.00		1.00	
	Actual	3.02	1.11	2.00		2.97		1.00		1.05		1.03					0.00 ^a	1.00		1.05	
16 of 21	Expected	3.00	1.00	1.00		1.00		1.00		1.00		2.00			2.00	1.00				1.00	1.00
	Actual	3.00	1.02	0.99		1.02		1.01		1.02		1.89			1.77	0.99				0.90	1.00
17 of 21	Expected	3.00	1.00	1.00		1.00		2.00		1.00		1.00			2.00	1.00				1.00	1.00
	Actual	2.91	1.20	0.87		0.82		2.00		1.03		0.74			1.73	0.79				0.97	1.19
18 of 21	Expected	3.00		1.00		1.00		2.00				3.00			2.00	2.00				1.00	
	Actual	3.08		1.13		1.08		2.00				2.72			1.67	2.00				0.99	
19 of 21	Expected	3.00	1.00	2.00		1.00		1.00				3.00			2.00	2.00					
	Actual	3.04	1.06	2.00		1.03		1.00				2.78			1.60	1.82					
20 of 21	Expected	5.00	1.00	2.00		2.00						3.00				2.00					
	Actual	5.08	0.98	2.00		2.13						2.72				1.99					
21 of 21	Expected	5.00	1.00	1.00		1.00	2.00					1.00	3.00			1.00	1.00				
	Actual	5.00	1.09	0.98		1.06	2.15					0.82	2.96			1.00	0.00 ^a				

^aTrp was completely destroyed during hydrolysis

Date: 30 APR 2012

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication or designee

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