



CERTIFICATE OF ANALYSIS

| | | | | |
|---------------------------------|--|--|------------------|---------------|
| Product Name | | 1837 HIV-1 V3 Peptide Cyclic Cys-17-Cys-NH ₂ | | Lot:150105 |
| Molecular Formula | | <i>C</i> ₇₉ <i>H</i> ₁₁₉ <i>N</i> ₂₄ <i>O</i> ₂₁ <i>S</i> ₂ | Item No. | 12833 |
| Peptide Molecular Weight | | 1808.10 | Batch No. | 0658 |
| Manufacturing Date | | 2015-04-16 | Test Date | 2015-04-23 |
| Sequence | | Cys-Lys-Ser-Ile-His-Ile-Gly-Pro-Gly-Arg-Ala-Phe-Tyr-Thr-Thr-Gly-Cys-NH ₂ Note: Disulfide bond: Cys1 to Cys17 | | |
| TEST | | SPECIFICATION | | RESULT |
| 1 | Appearance | White to off-white powder | | Complies |
| 2 | Peptide Identity (By Mass Spectral Analysis) | Expected M.W.: 1808.10 ± 1 m.u. | | 1807.92 |
| 3 | Peptide Purity (By HPLC) | ≥ 95% | | 97.67% |

Quality Control By: _____

Date: _____

4/29/2015

Print of window 80: MS Spectrum3

Date File : C:\Xcalibur\Data\File_150423171159 #35

Sample Name : 1837 HIV-1 V3 Peptide Cyclic Cys-17-Cys-NH₂

Acq. Operator : QC

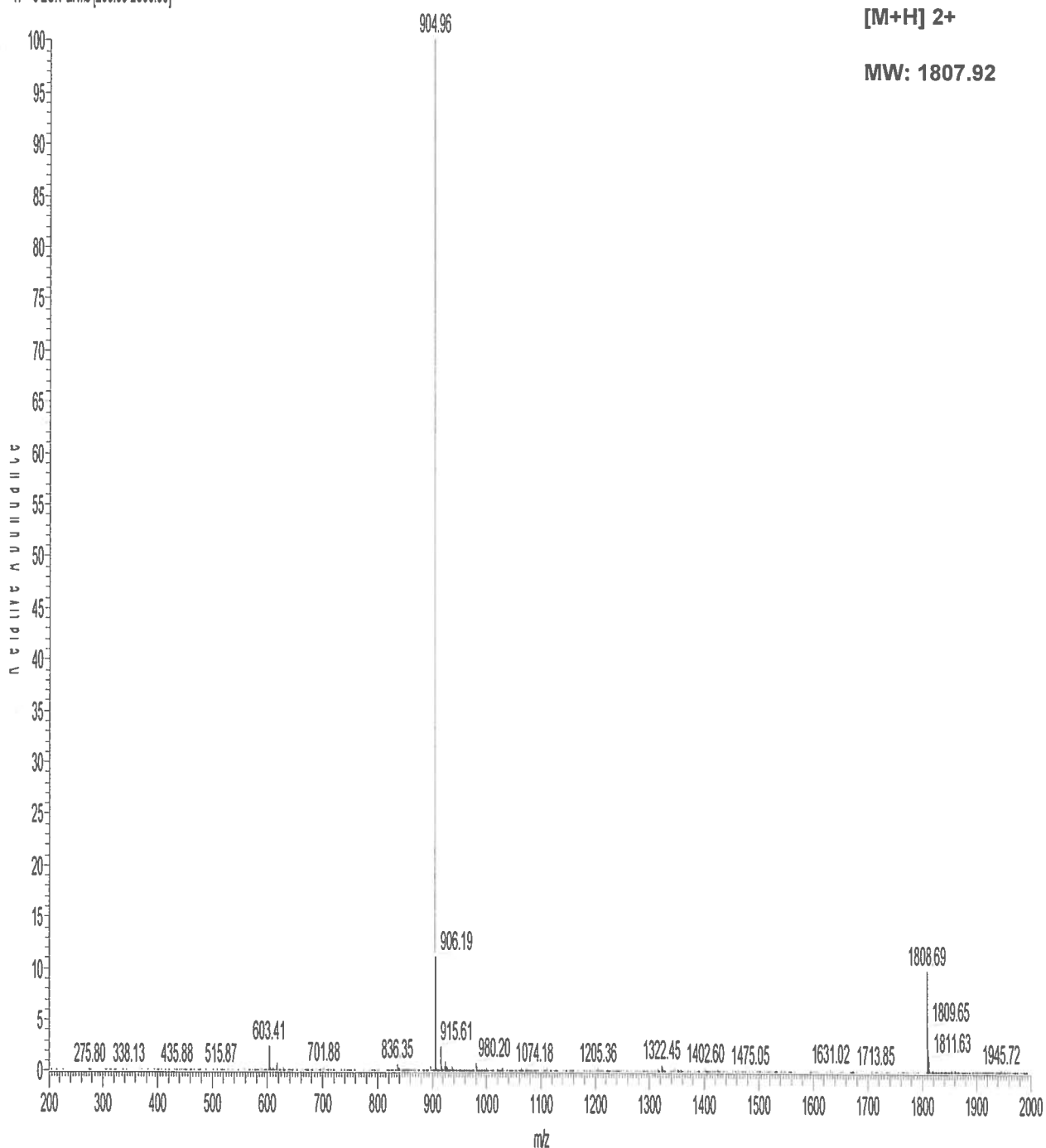
Seq. Line : 7

Acq Instrument : Instrument 10:55:11 AM

Inj : 15.0 ul

FILE 150423171159#35 RT: 0.85 AV: 1 NL: 5.11E8

T: +c ESI: Full ms [200.00-2000.00]

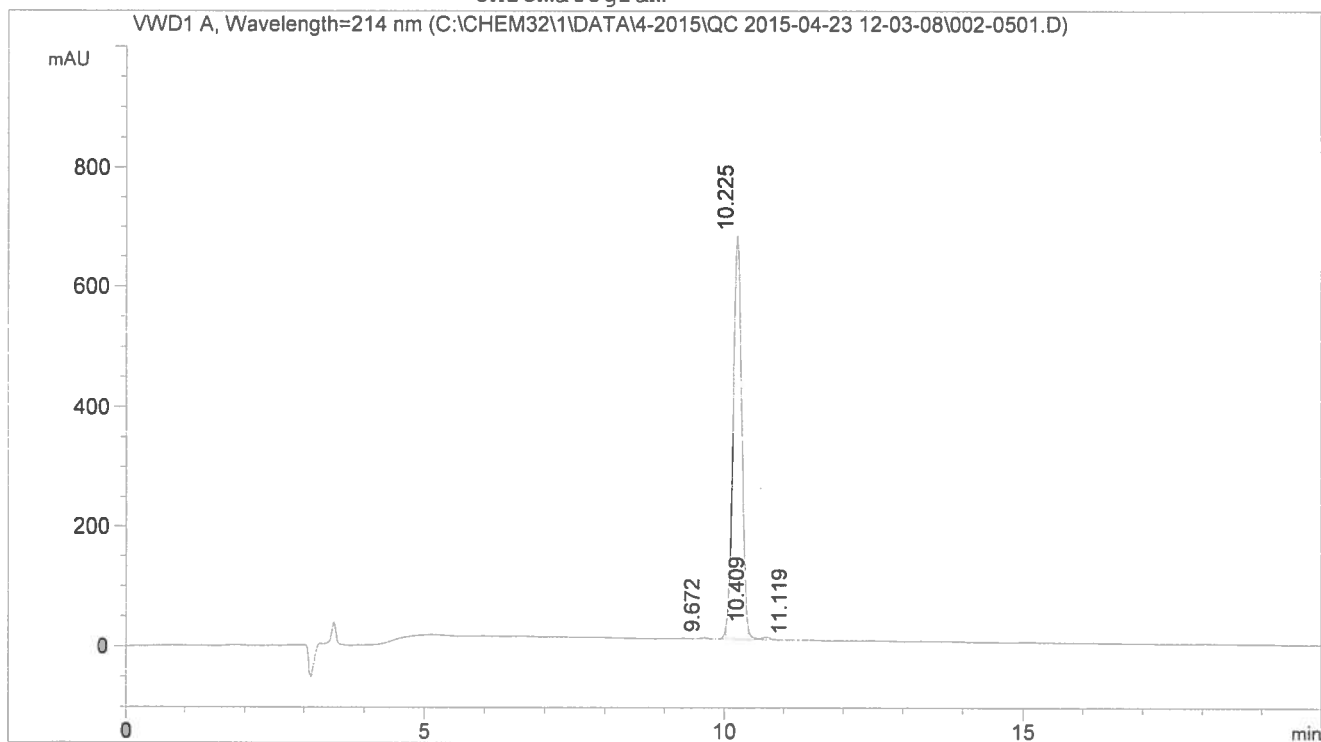


Sample Name: 1837 HIV-1 V3 Peptide Cyclic Cys-17-Cys-NH2
 Pump A: 0.1% Trifluoroacetic Acid in 100% Water
 Pump B: 0.1% Trifluoroacetic Acid in 100% Acetonitrile
 Total Flow: 1 ml/min
 Wavelength: 214 nm

| Time | Unit | Command | Value |
|-------|-------|---------------|-------|
| 0.00 | Pumps | Pump A B.Conc | 15 |
| 20.00 | Pumps | Pump A B.Conc | 45 |
| 20.10 | Pumps | Pump A B.Conc | 95 |
| 22.00 | Pumps | Pump A B.Conc | 95 |
| 22.10 | Pumps | Pump A B.Conc | 15 |
| 29.00 | Pumps | Pump A B.Conc | 15 |

Column: Column: Phenomenex Luna C18 5u, 4.6 x 250 mm, 100A

Chromatogram



| Peak # | RT [min] | Area | Height | Area % |
|--------|----------|------|--------|--------|
| 1 | 9.672 | 18 | 2 | 0.26 |
| 2 | 10.022 | 45 | 17 | 0.64 |
| 3 | 10.225 | 6851 | 674 | 97.67 |
| 4 | 10.409 | 97 | 19 | 1.38 |
| 5 | 11.119 | 4 | 0 | 0.06 |