MZ Biolabs
2102 N Country Club Rd
Tucson, AZ 85716
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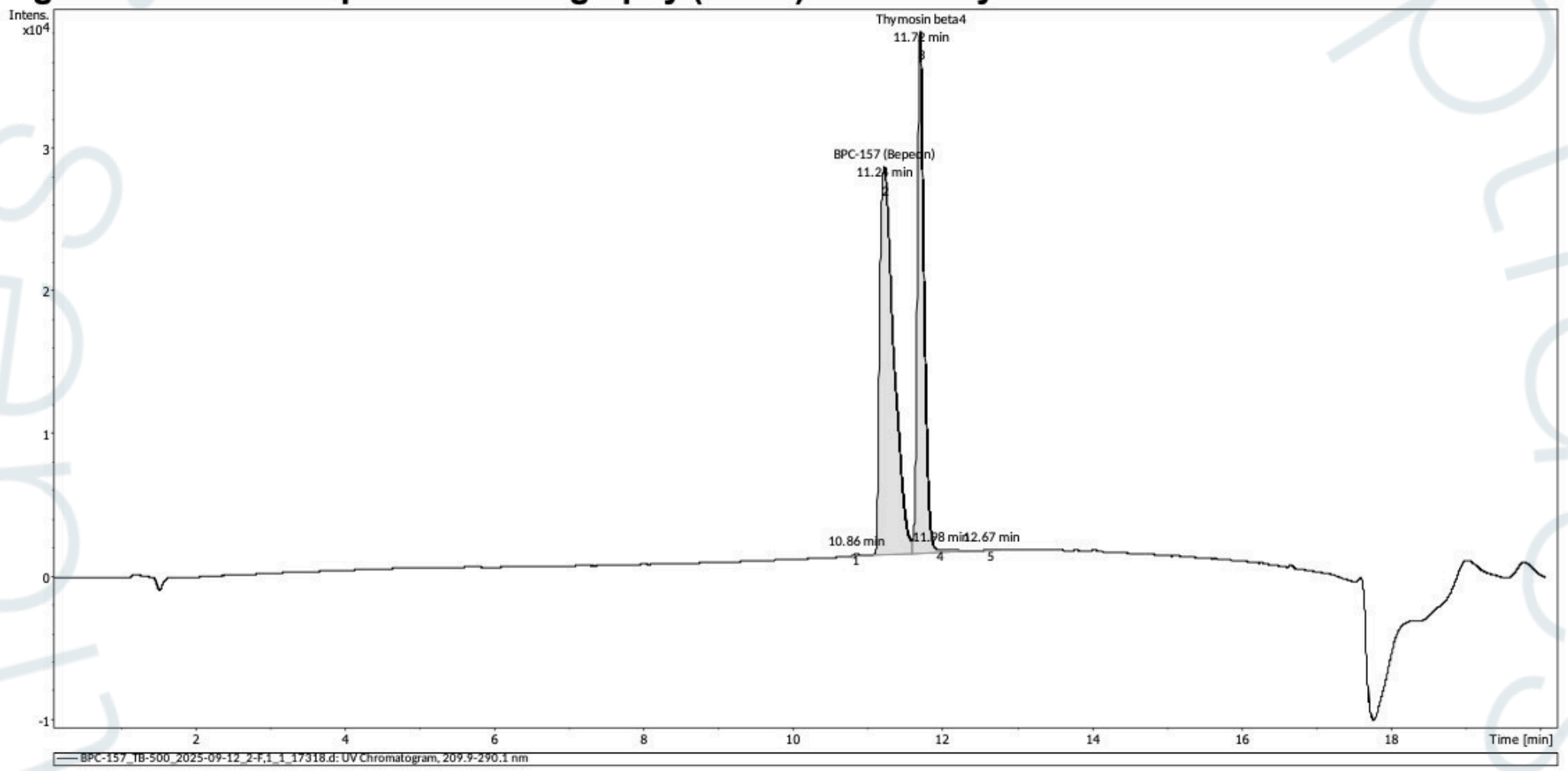
# Certificate of Analysis

## BPC-157 + Thymosin beta4

**Compound** : **BPC-157, Thymosin beta4**
**Lot number** : **2025-09-12**
**Analysis date** : **2025-09-22**
**Purity %** : **99.76%**
**Method** : **HPLC-UV-MS**

**Client :** **Tides Peptides**
www.tidespeptides.com

**High Performance Liquid Chromatography (HPLC) UV – Purity Test**




PEAK LIST — Number of detected peaks: 5

| | Time (min) | Area | %Area | |
|---|---|---|---|---|
| 1 | 10.86 | 7.90E+02 | 0.13 | |
| 2 | **11.24** | **3.52E+05** | **59.71** | **BPC-157** |
| 3 | **11.72** | **2.36E+05** | **40.05** | **Thymosin beta4** |
| 4 | 11.98 | 2.88E+02 | 0.05 | |
| 5 | 12.67 | 3.35E+02 | 0.06 | |

**Overall Purity :** **99.76**


Analysis Performed by
Ken Pendarvis, ChE
Analytical Chemist
MZ Biolabs
contact@mzbiolabs.com

2025-09-29

Note: Injectable peptides may contain salts and sugars to aid in solubility and act as pH buffers. These are not normally detected using UV and are not considered impurities.

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# BPC-157 + Thymosin beta4

## Mass Spectrometry (MS)–IdentityTest

### IdentityconfirmedusingHPLC-MS

Molecular weight calculated using monoisotopic m/z values from mass spectrum

Note : Monoisotopicm/zvaluesare not easilyseen in fullspectrumviewfor larger moleculesandpeptides.

The dominant isotopic peak (base peak) shown in the spectrum below can be used to approximate the average molecularweight frequently reported by vendors and databases as a secondary means of confirmation.

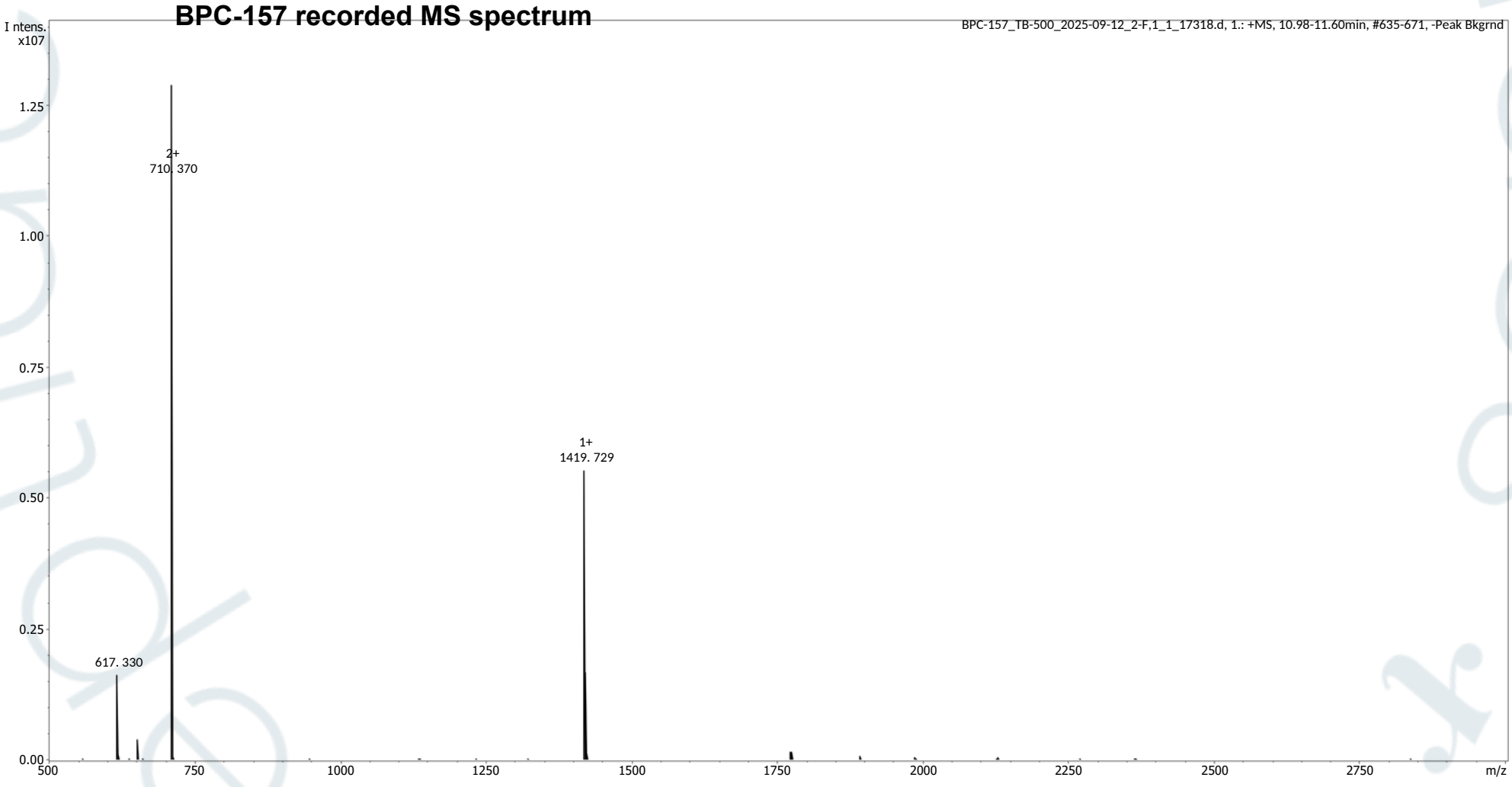
**BPC-157**

PubChem CID: 9941957
https://pubchem.ncbi.nlm.nih.gov/compound/9941957

| | | |
|---|---|---|
| Expected monoisotopic mass : | 1418.70 | Da |
| Measured monoisotopic mass : | 1418.74 | Da |

**Molecular weight confirmed**

**BPC-157 recorded MS spectrum**





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# BPC-157 + Thymosin beta4

## Mass Spectrometry (MS)–IdentityTest

### IdentityconfirmedusingHPLC-MS

Molecular weight calculated using monoisotopic m/z values from mass spectrum

Note : Monoisotopicm/zvaluesare not easilyseen in fullspectrumviewfor larger moleculesandpeptides.

The dominant isotopic peak (base peak) shown in the spectrum below can be used to approximate the average molecular weight frequently reported by vendors and databases as a secondary means of confirmation.

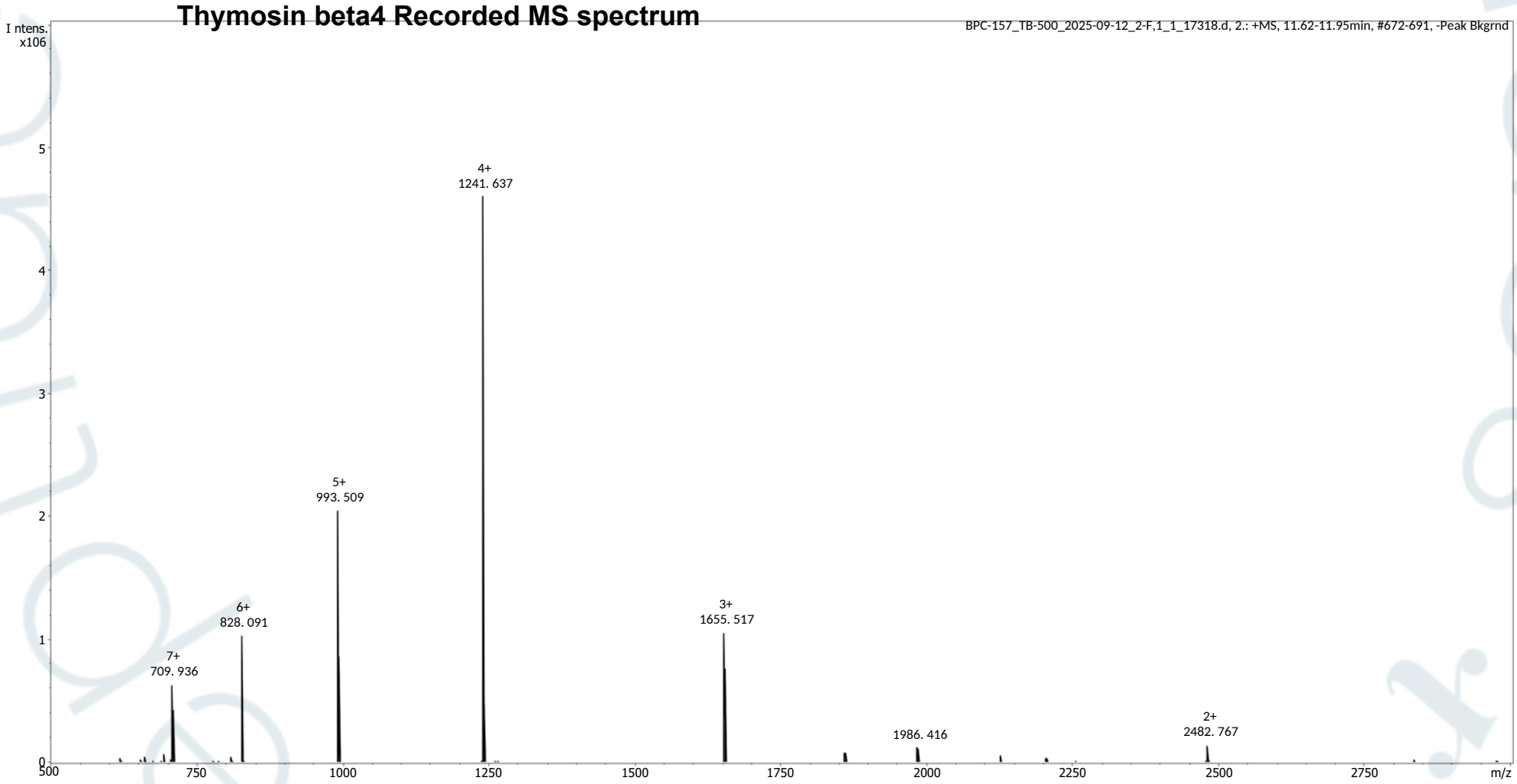
### Thymosin beta4

PubChem CID: 16132341
https://pubchem.ncbi.nlm.nih.gov/compound/16132341

| | | |
|---|---|---|
| Expected monoisotopic mass : | 4960.48 | Da |
| Measured monoisotopic mass : | 4960.53 | Da |

**Molecular weight confirmed**

### Thymosin beta4 Recorded MS spectrum





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2025-09-29

tides™
peptides

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| Product Name | BPC-157 | CAS NO. | 137525-51-0 |
| Batch NO. | NCBPC250621 | Molecular formula | C26H98N16O22 |
| Manufacture Date | June.21, 2025 | Molecular weight | 1419.56 |
| Reference standard | Enterprise Standard | | |

| TEST | SPECIFICATION | RESULTS |
|---|---|---|
| Appearance | White or almost white fluffy powder | Conforms |
| Identity by HPLC | The retention time of the main principal of the test Solution corresponds to that of the reference Solution, as obtained in the assay | Conforms |
| Solubility | ≥100mg/ml(H2O) | Conforms |
| Purity(HPLC) | ≥ 98% | 99.5% |
| Acetic Acid | ≤ 5.0% | 0.05% |
| Water | ≤ 8.0% | 3.61% |
| Trifluoroacetic acid | ≤ 0.5% | Not detected |
| pH | 3.0~5.0 | 4.05 |
| Related Substances | Total impurities ≤ 2.0% | 0.5% |
| | Large Single Impurity ≤ 1.0% | 0.27% |
| Bacterial Endotoxins | ⩽ 10 EU/mg | Conforms |
| Peptide Assay | ≥ 90.0% | 95.7% |
| Conclusion | This product conforms to the Enterprise Standard. | |

**Note: this product is intended for research use only**

**Important: Stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated.**

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| Product Name | TB-500 | CAS NO. | 77591-33-4 |
| Batch NO. | NCTB250610 | Molecular formula | C212H350N56O78S |
| Manufacture Date | June 10, 2025 | Molecular weight | 4963.44 |
| Reference standard | Enterprise Standard | | |

| TEST | SPECIFICATION | RESULTS |
|---|---|---|
| Appearance | White or almost white fluffy powder | Conforms |
| Identity by HPLC | The retention time of the main principal of the test Solution corresponds to that of the reference Solution, as obtained in the assay | Conforms |
| Solubility | Soluble in H2O | Conforms |
| Purity(HPLC) | ≥ 98% | 99.1% |
| Acetic Acid | ≤ 5.0% | 0.09% |
| Water | ≤ 8.0% | 5.69% |
| Trifluoroacetic acid | ≤ 0.5% | Not detected |
| pH | 4.0~6.0 | 4.93 |
| Related Substances | Total impurities ≤ 2.0% | 0.9% |
| | Large Single Impurity ≤ 1.0% | 0.55% |
| Bacterial Endotoxins | ≤ 10 EU/mg | Conform |
| Peptide Assay | ≥ 90.0% | 92.32% |
| Conclusion | This product conforms to the Enterprise Standard. | |

**Note: this product is intended for research use only**

**Important: Stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated.**