CERTIFICATE OF ANALYSIS

Product Name	API137, Cat. no: 318720
Order ID	C4079IB070_1
Lot No.	C4079IB070-1/PE0037
Sequence	{N,N,N',N'-tetramethylGuanidino}{ORN}NNRPVYIPRPRPPHPRL
Modification	N/A
Length	19AA
Storage	-20°C
Recommended Solvent*	Ultrapure water
Comments	TFA salt

Test Items	Specifications	Results
Molecular Weight	Theoretical MW: 2291.70	Consistent
HPLC purity	≥95.0%	97.6%
Appearance	White lyophilized powder	Conforms
Gross Weight	100 mg	20*5.0mg

NovoPro Bioscience Inc. (hereafter NovoPro) warrants material of said quality at the time of sale. It is the sole responsibility of the customers to determine the adequacy of all materials for any intended or specific purpose or use. NovoPro's sole obligation is to replace the material up to the extent of the purchase price. This warranty applies only to products in original packaging and does not apply to a product which has been tampered with or altered in any way in or which has been misused or damaged by accident or negligence. All claims must be received writing (by fax or email) within 30 days from date when product arrive at the destination city and failure to do so shall constitute a waiver by customers for any and all such claims.

Certified by:

Quality Assurance Department

Mar/28/2023

NovoPro Biosciences Inc. VERIFIED Quality Control

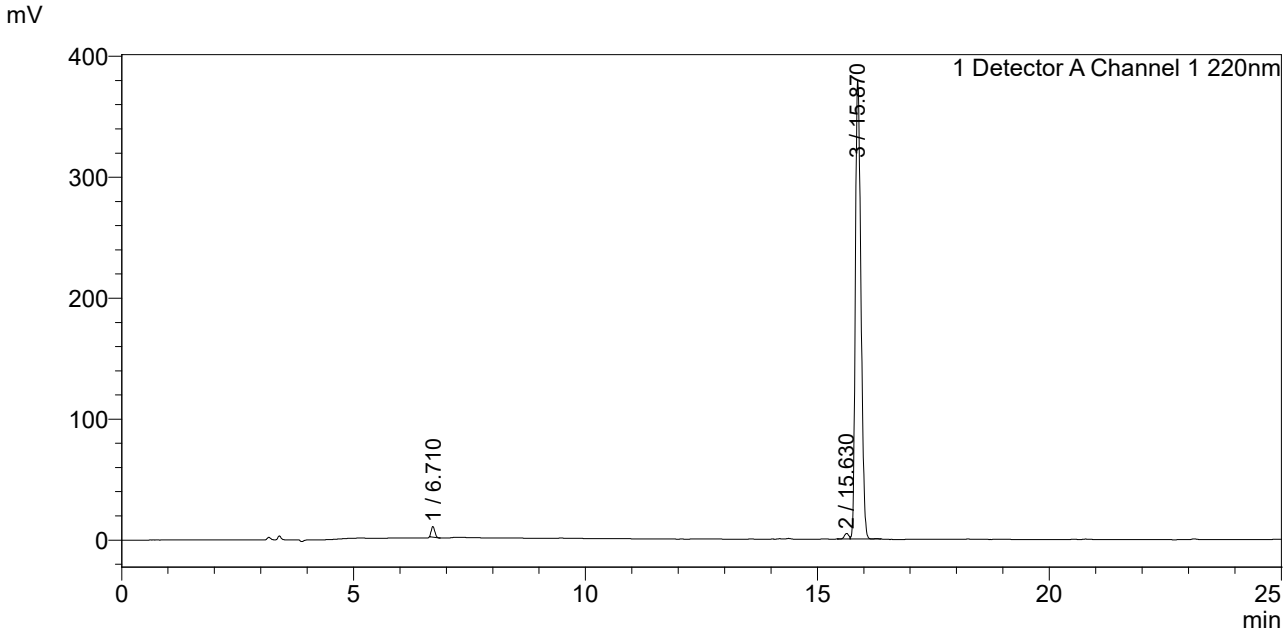
Sample Name : API137
Sample ID : C4079IB070-1
Time Processed :13:57:36
Month-Day-Year Processed :03/26/2023

Pump A : 0.065% trifluoroacetic in 100% water (v/v)
Pump B : 0.05% trifluoroacetic in 100% acetonitrile (v/v)
Total Flow:1 ml/min
Wavelength:220 nm
<<LC Time Program>>

Time	Module	Command	Value
0.01	Pumps	B.Conc	5
25.00	Pumps	B.Conc	65
25.01	Pumps	B.Conc	95
27.00	Pumps	B.Conc	95
27.01	Pumps	B.Conc	5
35.00	Pumps	B.Conc	5
35.01	Controller	Stop	

<<Column Performance>>
<Detector A>
Column :Inertsil ODS-SP 4.6 x 250 mm
Equipment: GR11010440

<Chromatogram>

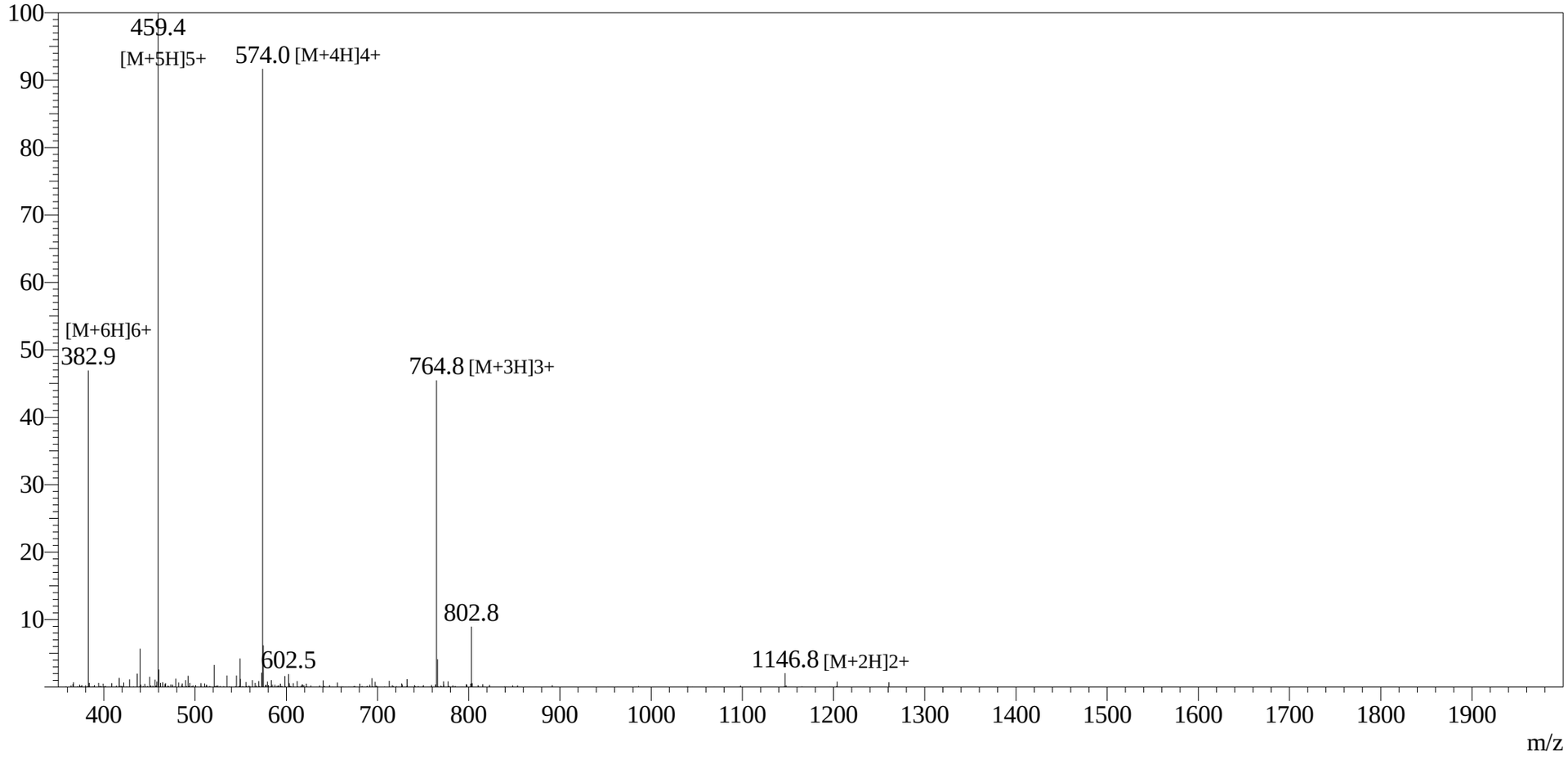


<Peak Table>

Detector A Channel 1 220nm

Peak#	Ret. Time	Area	Height	Area%
1	6.710	47735	8899	1.473
2	15.630	30925	4658	0.954
3	15.870	3161568	379155	97.572
Total		3240228	392711	100.000

Mass Spectrum



Sample Information

Month-Day Processed :	03/22/23
Time Processed :	23:03:37
Injection Volume :	0.2
Sample Name :	API137
Sample ID :	C4079IB070-1
Theoretical MW :	2291.70
Observed MW :	2292.0

Interface	:ESI
Nebulizing Gas Flow	:1.5L/min
CDL Temp	:250
Block Temp	:200

Equipment	: ZJ21010035
Interface Bias	: +4.5 kV
Drying Gas Flow	:5 L/min
T.Flow	:0.2 ml/min
B.conc	:50%H2O/50%MeOH

Peptide Qualitative Solubility Test Report

Name	API137
Order ID	C4079IB070-1

Solvent	Results
ultrapure water	Soluble
0.1M PBS 7.4	Soluble
DMSO	Soluble

DPBS Dulbecco's Phosphate Buffered Saline, containing Potassium Chloride(KCl),Potassium Phosphate monobasic (KH_2PO_4),Sodium Chloride (NaCl)and Sodium Phosphate dibasic (Na_2HPO_4-$7H_2O$);

Comments:
1. The solubility of peptides is largely determined by the polarity of the peptides. Acidic proteins are dissolved in alkaline solutions, basic proteins can be dissolved in acidic solutions, and hydrophobic and neutral polypeptides containing a large number of uncharged polar amino acid residues or hydrophobic amino acids can be dissolved in a small amount of organic solvents first. Then dilute with water. Peptides with higher hydrophobicity are recommended to be dissolved in pure DMSO.
2. Freely soluble: the solvent is added to the sample, the sample dissolves immediately, and the solution is clear and transparent. Soluble: the solvent is added to the sample, the sample dissolves after shaking or sonication , and the solution is clear and transparent. Insoluble: The solvent is added to the sample, the solution is cloudy or flocculent by shaking or sonication. Note: The dissolved concentration of the sample is about 1mg/ml.
3. Peptides containing Cysteine (C), Methionine (M) or Tryptophan (W) are sensitive to oxidation by DMSO. We advise that peptides dissolved in DMSO be used immediately or stored at -20°C (or preferably -80°C)prior to use. Usually, we recommend that the peptides be used in time after dissolving. If the solution peptides need to be stored, it is recommended to store them in small samples to avoid repeated freezing and thawing.
4. When the peptide is insoluble in the solvent of your choice, please refer to the table above for other suggested solvents.
5. Please note that distinct dissolution behaviors may happen between small amounts and large amounts of gross peptide in the same solvent. Generally, larger amounts of peptide take longer to dissolve.
6. The test results are for reference only, and the user needs to choose a suitable solvent according to the experimental needs.

Tested by: Ting Hu
03-27-2023