


CERTIFICATE OF ANALYSIS

Product Name	Retatrutide / LY3437943 (Cat.# 319206, >99% purity)
Lot No.	MTFA31504-0620
Sequence	Tyr-{Aib}-Gln-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile-{ α -Me-Leu}-Leu-Asp-Lys-{diacid-C20-gamma-Glu-(AEEA)-Lys}-Ala-Gln-{Aib}-Ala-Phe-Ile-Glu-Tyr-Leu-Leu-Glu-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-NH ₂ (Sodium salt)
Dissolution condition	100% H ₂ O
Length	39AA
Modification	sodium salt
Molecular Weight (MW)	4731.33
Storage	-20°C

	Specifications	Results
Appearance	White to off-white lyophilized powder	Conforms
MW by MS	4731.30±2Da	4731.60Da
Dissolution	Tested: Water Acetonitrile DMSO	Water: soluble, 197.5mg/ml Acetonitrile: insoluble DMSO: soluble, 105.0mg/ml
pH value	6.0-8.0	7.5
TFA	≤0.5%	0%, undetectable
Acetate	≤5.0%	0%, undetectable
Sodium salt	≤5.0%	1.1%
Purity	≥98.0%	99.281%
Impurity	Single Impurity ≤1.0%	0.7%
	Total Impurity ≤2.0%	0.7%
Polymer	≤5.0%	0%, undetectable
Net peptide content (NPC)	≥80.0%	90.9%
Water	≤10.0%	2.9%

Certified by:



Quality Assurance Department

Jun/27/2024



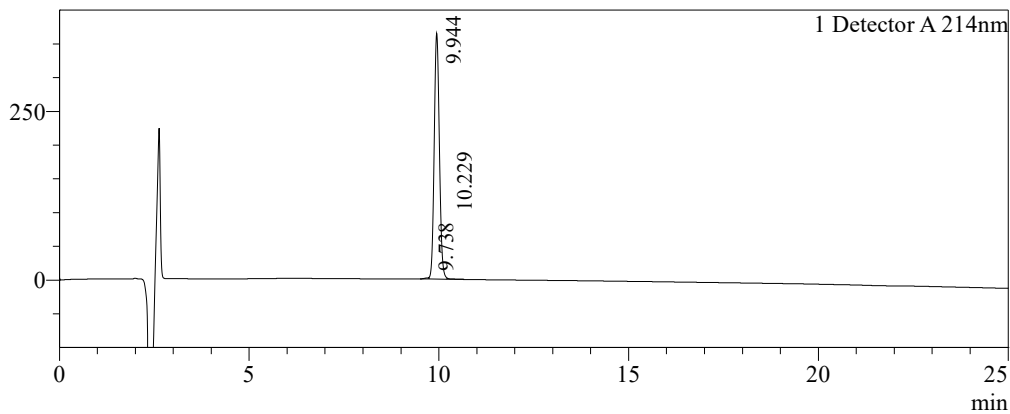
Sample Information

Order ID :MTFA31504
 Name :Retatrutide
 Sequence :Tyr- {Aib}-Gln-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile- { α -Me-Leu}
 -Leu-Asp-Lys- {diacid-C20-gamma-Glu-(AEEA)-Lys}-Ala-Gln- {Aib}
 -Ala-Phe-Ile-Glu-Tyr-Leu-Leu-Glu-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-
 Pro-Pro-Ser-NH₂
 Lot. No :MTFA31504-0620
 Pump A :0.1%Trifluoroacetic in 100% water
 Pump B :0.1%Trifluoroacetic in 100% acetonitrile
 Total Flow :1ml/min
 Wavelength :214nm
 Analytical column type :Kromasil 100-5-C18 (4.6*250mm*5 μ m)
 Dissolution method :100%H₂O
 Inj. Volume : 30ul

Time	Module	Action	Value
0.01	Pumps	B.Conc	45
25.00	Pumps	B.Conc	70
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	45
50.00	Controller	Stop	

Chromatogram

mV

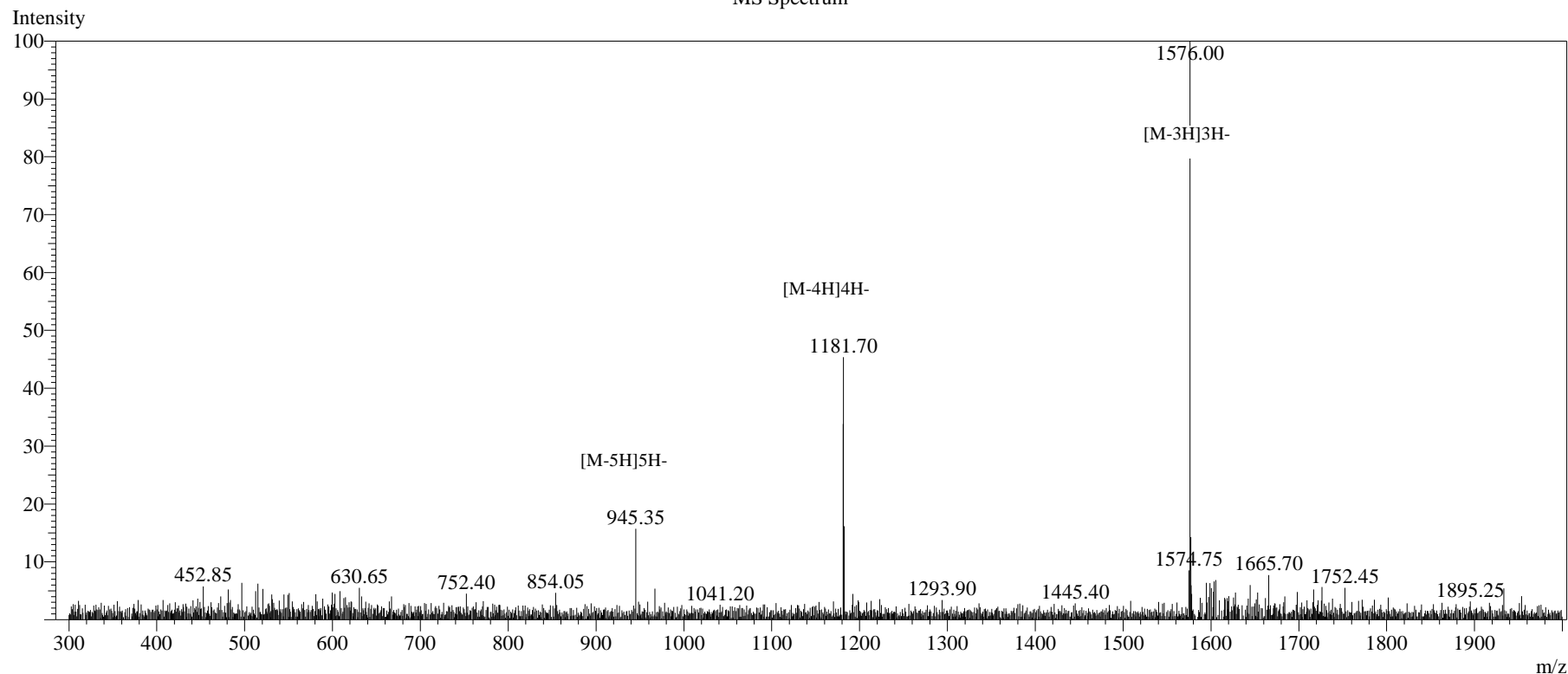


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	9.738	14495	2039	0.420
2	9.944	3423814	364508	99.281
3	10.229	10312	1501	0.299
Total		3448621	368047	100.000

MS Spectrum



Sample Information

Dissolution method	:15% ACN+85% H ₂ O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2024/06/21 13:33:15	Nebulizing Gas Flow	:1.50L/min	Detector	:-0.2kv
Injection Volume	:0.2ul	CDL Temp	:250°C	T.Flow	:0.2ml/min
Block Temp	:200	CDL Volt	:0v	B.conc	:50% H ₂ O/50% MEOH

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Lot.No	:MTFA31504-0620
Theoretical	:4731.33
Observed	:4731.00

Instructions for dissolving Retatrutide (LY3437943)

The Retatrutide is soluble in 100% H₂O or 1xPBS. The maximum concentration is 5.0 mg/ml.

The steps are as below:

1. Adding 1.0 ml ultrapure water to the 2.0 ml tube of Retatrutide;
2. Wait about 1 minute at room temperature until the solution is clear, which indicates the peptide is fully dissolved;
3. Use a sterile 0.22 μ m membrane filter for a particle-free and bacteria-free Retatrutide solution.

For example, Catalog# SLGPR33RB, Millipore Millex-GP Syringe Filter Unit, 0.22 μ m, polyethersulfone, 33 mm, gamma sterilized.

The detailed application information of Retatrutide can be found at:

<https://pubmed.ncbi.nlm.nih.gov/37366315/>