

CERTIFICATE OF ANALYSIS

Product Name	Liraglutide
Lot No.	GTA34662-1027
Sequence	His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys(palm-gama-Glu)-Glu-Phe-Ile-Ala-Trp-Leu-Val-Arg-Gly-Arg-Gly
Dissolution condition	30%ACN+70%H2O
Length	31AA
Modification	sodium salt
Molecular Weight (MW)	3751.20
Storage	-20°C

Test Items	Specifications	Results
MW by MS	3751.65	Conforms
Purity by HPLC	>98%	98.051%
Peptide Content	N/A	N/A
Moisture content	N/A	N/A
Acetic acid content	N/A	N/A
Appearance	White to off-white lyophilized powder	Conforms
Quantity	1g	100.0mg*10

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

Oct/30/2022

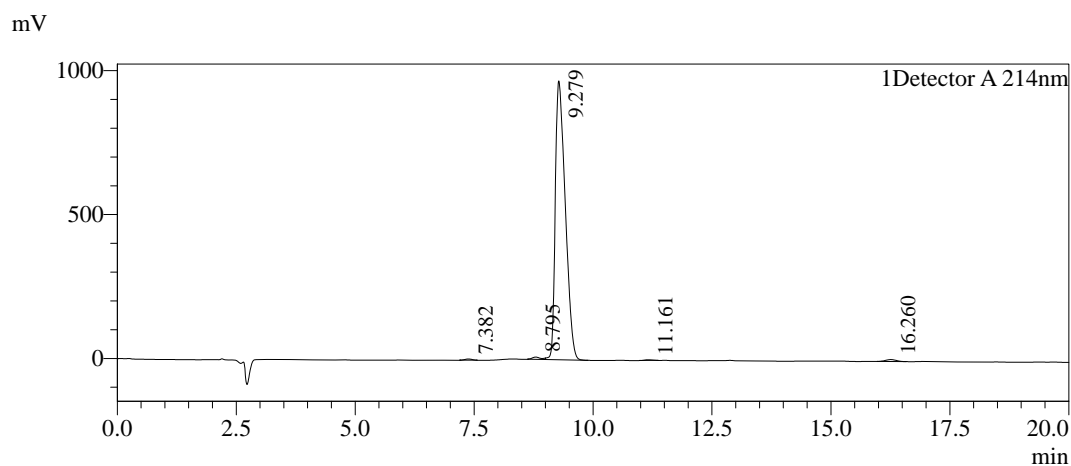


Sample Information

Order ID :GTA34662
 Name :Liraglutide
 Sequence :His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr
 -Leu-Glu-Gly-Gln-Ala-Ala-Lys(palm-gama-Glu)-Glu-Phe
 -Ile-Ala-Trp-Leu-Val-Arg-Gly-Arg-Gly
 Lot. No :GTA34662-1027
 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 :YMC-Triart C18(4.6*250mm*5um)
 Dissolution method :30% ACN+70% H2O
 Inj. Volume : 25ul

Time	Module	Action	Value
0.01	Pumps	B.Conc	50
20.00	Pumps	B.Conc	70
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	50
50.00	Controller	Stop	

Chromatogram

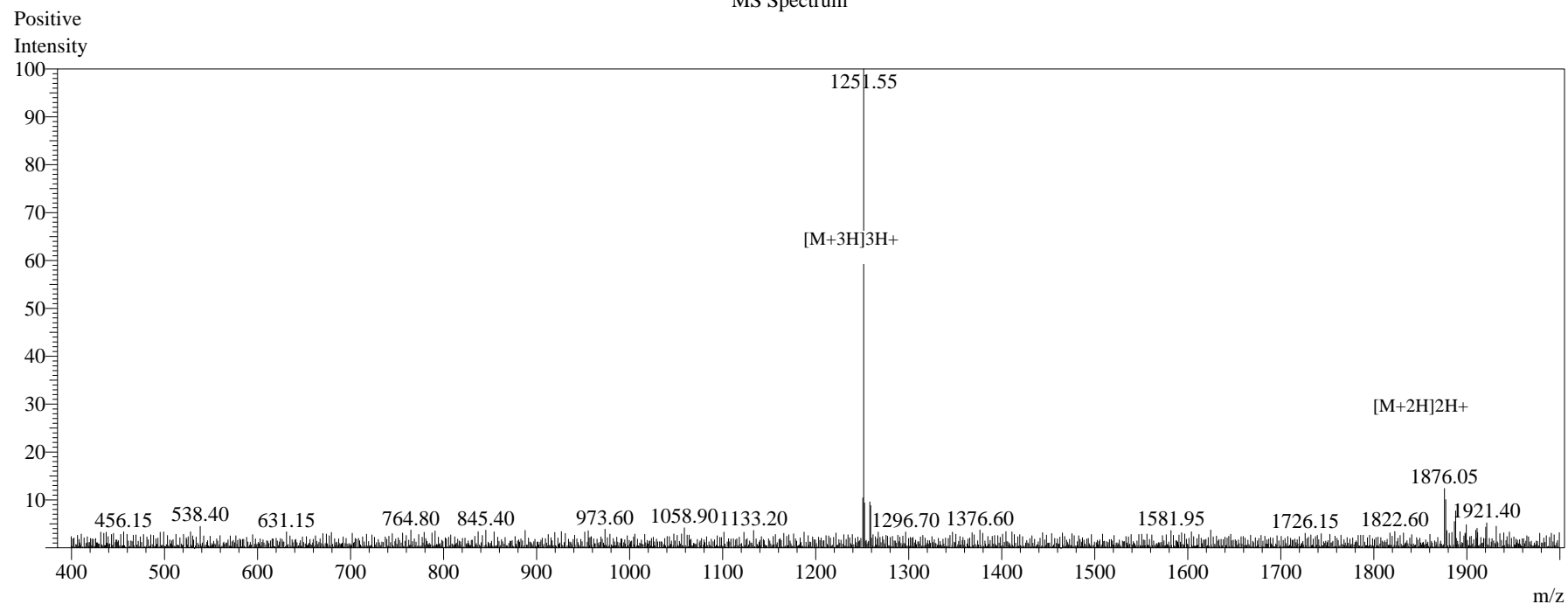


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	7.382	44075	4251	0.305
2	8.795	105212	8086	0.728
3	9.279	14173811	968653	98.051
4	11.161	25978	2414	0.180
5	16.260	106458	6763	0.736
Total		14455534	990167	100.000

MS Spectrum



Sample Information

Dissolution method	:30% ACN+70% H ₂ O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2022/10/28 15:29:40	Nebulizing Gas Flow	:1.50L/min	Detector	:-0.2kv
Injection Volume	:0.2ul	CDL Temp	:250C	T.Flow	:0.2ml/min
Block Temp	:200	CDL Volt	:0v	B.conc	:50% H ₂ O/50% MEOH
Order ID	:GTA34662				
Name	:Liraglutide				
Sequence	:His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys(palm-gama-Glu)-Glu-Phe-Ile-Ala-Trp-Leu-Val-Arg-Gly-Arg-Gly				
Lot.No	:GTA34662-1027				
Theoretical	:3751.20				
Observed	:3751.65				