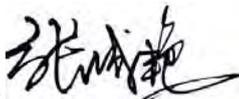

CERTIFICATE OF ANALYSIS

Product Name	Neuropeptide FF Morphine Modulating Neuropeptide F-8-F/NPFF, Cat.# 314522, TFA removed
Lot No.	GTA34685-2-1103
Sequence	FLFQPQRF-NH ₂ (Acetate Salt)
Dissolution condition	100%H ₂ O
Length	8AA
Modification	acetate salt
Molecular Weight (MW)	1081.26
Storage	-20°C

Test Items	Specifications	Results
MW by MS	1080.85	Conforms
Purity by HPLC	>95%	98.796%
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	10mg	5.0mg*2

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

Nov./24/2022

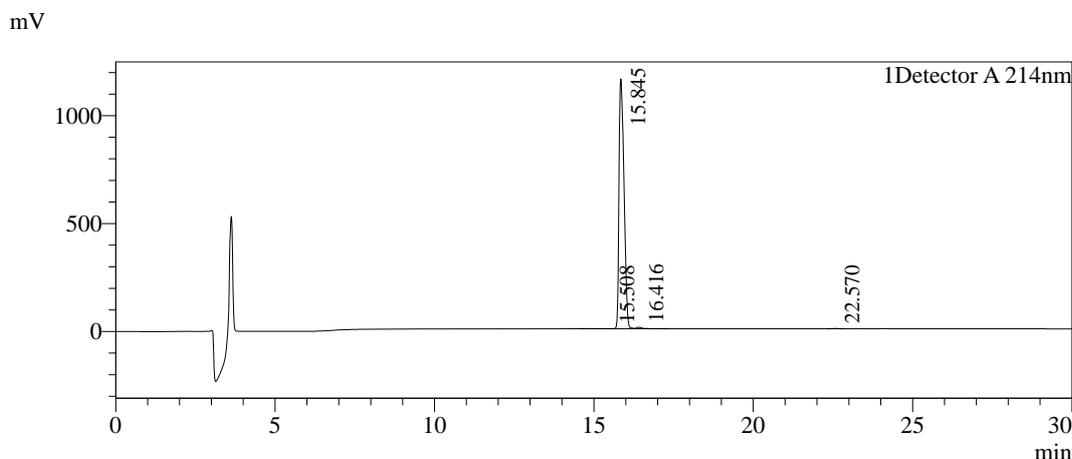


Sample Information

Order ID :GTA34685-2
 Name :Neuropeptide FF Morphine Modulating
 Neuropeptide F-8-F/NPFF, Cat.# 314522,TFA removed
 Sequence :FLFQPQRF-NH2(Acetate Salt)
 Lot. No :GTA34685-2-1103
 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 :100% H2O
 Inj. Volume : 25ul

Time	Module	Action	Value
0.01	Pumps	B.Conc	20
30.00	Pumps	B.Conc	50
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	20
50.00	Controller	Stop	

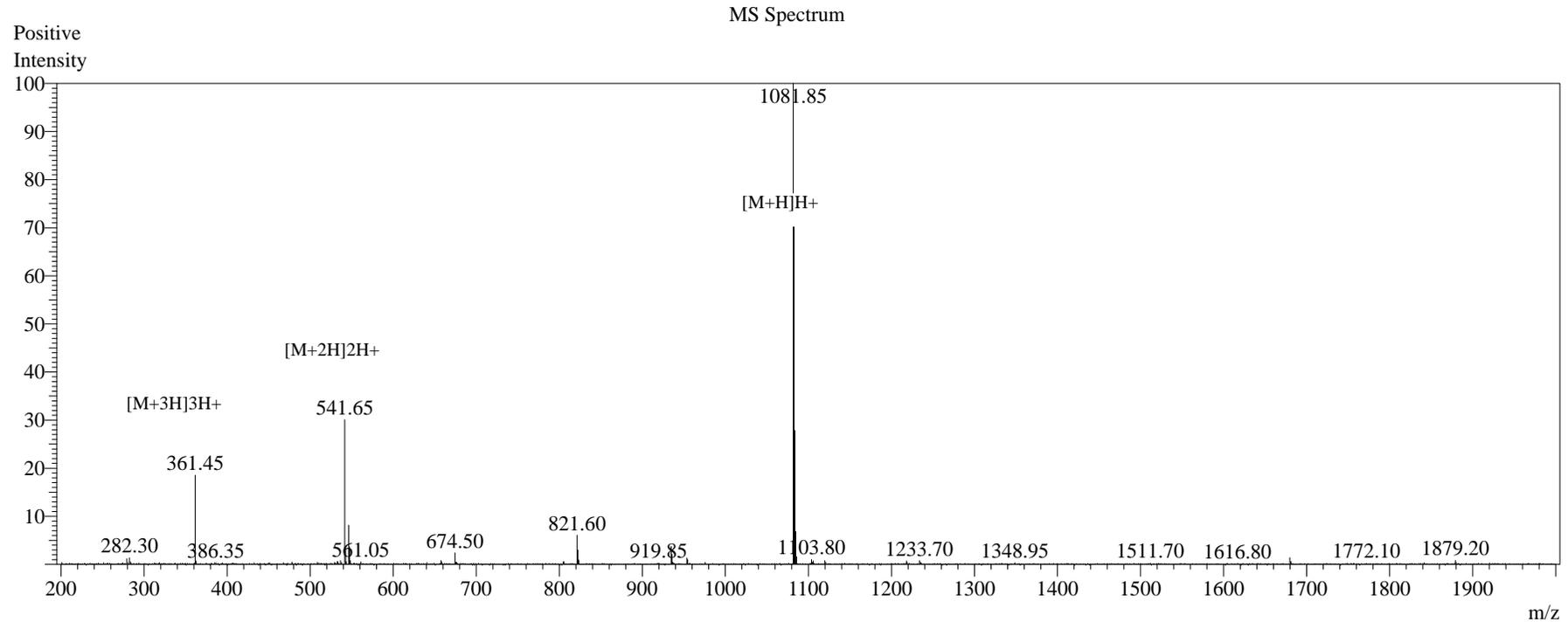
Chromatogram



Peak Table

Detector A 214nm				
Peak#	Ret. Time	Area	Height	Area%
1	15.508	26808	1130	0.208
2	15.845	12738726	1158186	98.796
3	16.416	115247	7240	0.894
4	22.570	13135	1160	0.102
Total		12893916	1167716	100.000

Neuropeptide FF Morphine Modulating



Sample Information

Dissolution method	:15% ACN+85% H ₂ O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2022/11/24 10:44:39	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	:GTA34685-2				
Name	:Neuropeptide FF Morphine Modulating Neuropeptide F-8-F/NPFF,Cat.# 314522,TFA removed				
Sequence	:FLFQPQRF-NH ₂ (Acetate Salt)				
Lot.No	:GTA34685-2-1103				
Theoretical	:1081.26				
Observed	:1080.85				