
CERTIFICATE OF ANALYSIS

Product Name	beta-Casomorphin (1-4) (bovine) peptide, Cat.# 310976
Lot No.	GTA34985-7-0222
Sequence	YPFP
Dissolution condition	100%H2O
Length	4AA
Modification	N/A
Molecular Weight (MW)	522.59
Storage	-20°C

Test Items	Specifications	Results
MW by MS	522.40	Conforms
Purity by HPLC	>95%	99.152%
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

Mach/18/2023

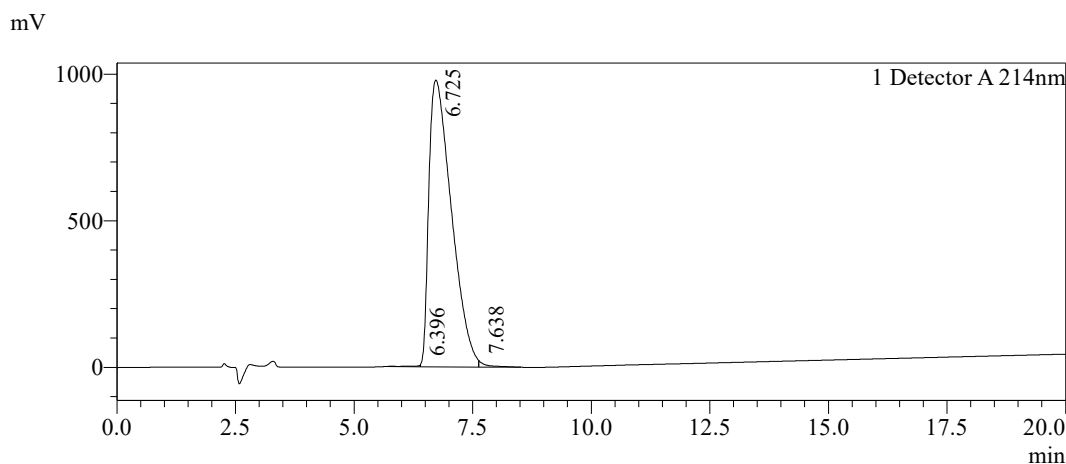


Sample Information

Order ID :GTA34985-7
 Name :β-Casomorphin (1-4) (bovine) peptide
 Sequence :YPFP
 Lot. No :GTA34985-7-0222
 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 :Shim-pack GIST C18(4.6*250mm*5um)
 Dissolution method :100%H2O
 Inj. Volume : 30ul

Time	Module	Action	Value
0.01	Pumps	B.Conc	25
20.00	Pumps	B.Conc	45
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	25
50.00	Controller	Stop	

Chromatogram

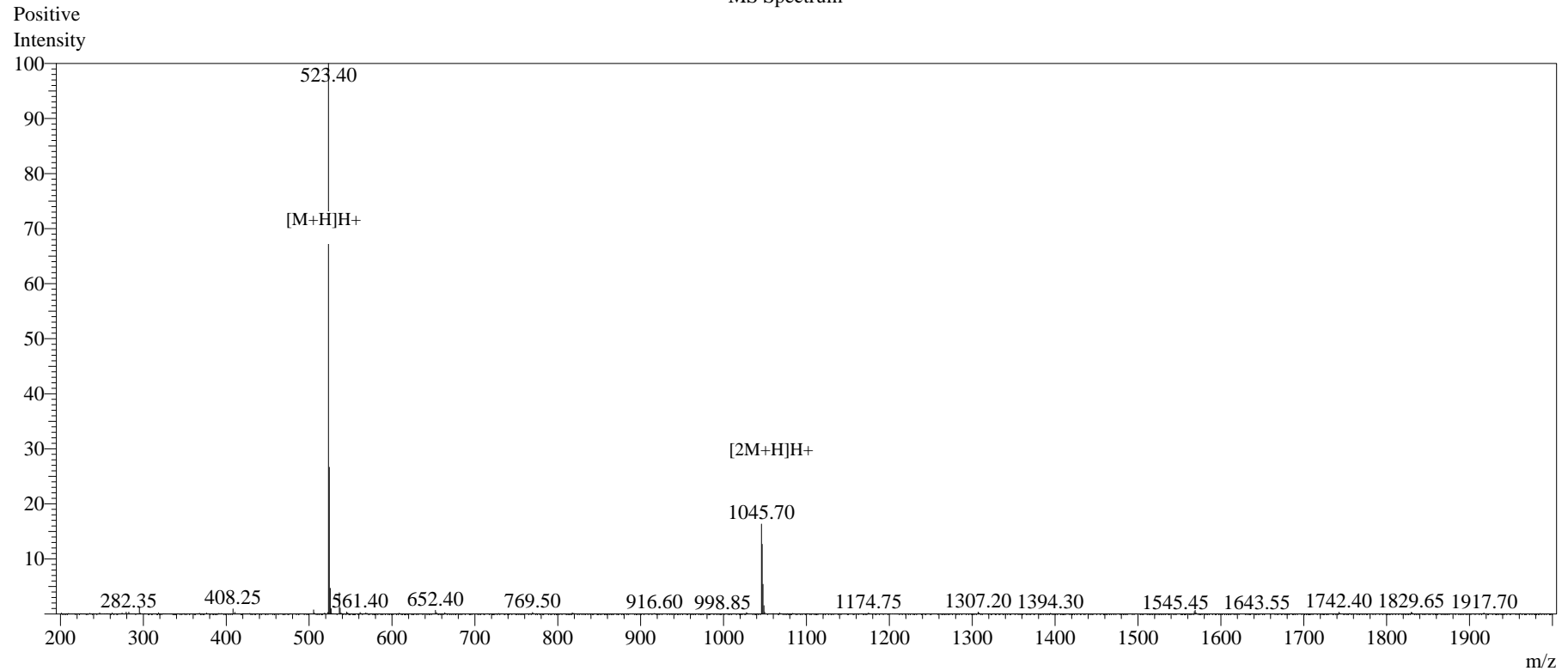


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	6.396	56915	5459	0.174
2	6.725	32352860	977747	99.152
3	7.638	219768	21446	0.674
Total		32629543	1004651	100.000

MS Spectrum



Sample Information

Dissolution method	:15%ACN+85%H ₂ O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2023/03/17 14:45:18	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	:GTA34985-7
Name	:β-Casomorphin (1-4) (bovine) peptide
Sequence	:YPPF
Lot.No	:GTA34985-7-0222
Theoretical	:522.59
Observed	:522.40