

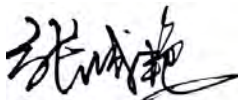
## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	Thymosin beta-4 (16-38) , (Cat.#303167, TFA removed)
<b>Lot No.</b>	GTA33955-5-0117
<b>Sequence</b>	KLKKTETQEKNPLPSKETIEQEK(Acetate Salt)
<b>Dissolution condition</b>	100%H2O
<b>Length</b>	23AA
<b>Modification</b>	Acetate salt
<b>Molecular Weight (MW)</b>	2727.08
<b>Storage</b>	-20°C

Test Items	Specifications	Results
MW by MS	2727.45	Conforms
Purity by HPLC	>95%	97.275%
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	20mg	5.0mg*4

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

Feb/12/2022

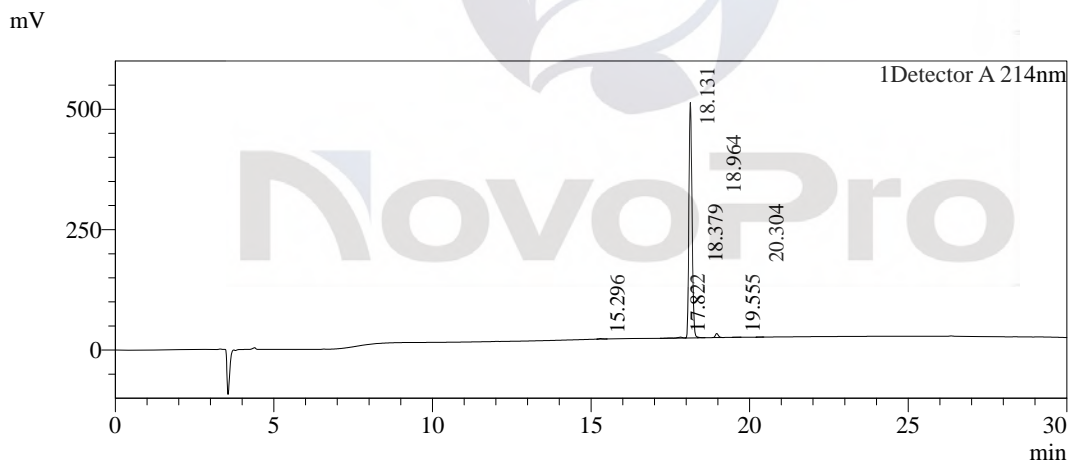


Sample Information

Order ID :GTA33955-5  
 Name :Thymosinb4(16-38)  
 Sequence :KLKKTETQEKNPLPSKETIEQEK(Acetate Salt)  
 Lot. No :GTA33955-5-0117  
 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	5
30.00	Pumps	B.Conc	35
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	5
50.00	Controller	Stop	

Chromatogram

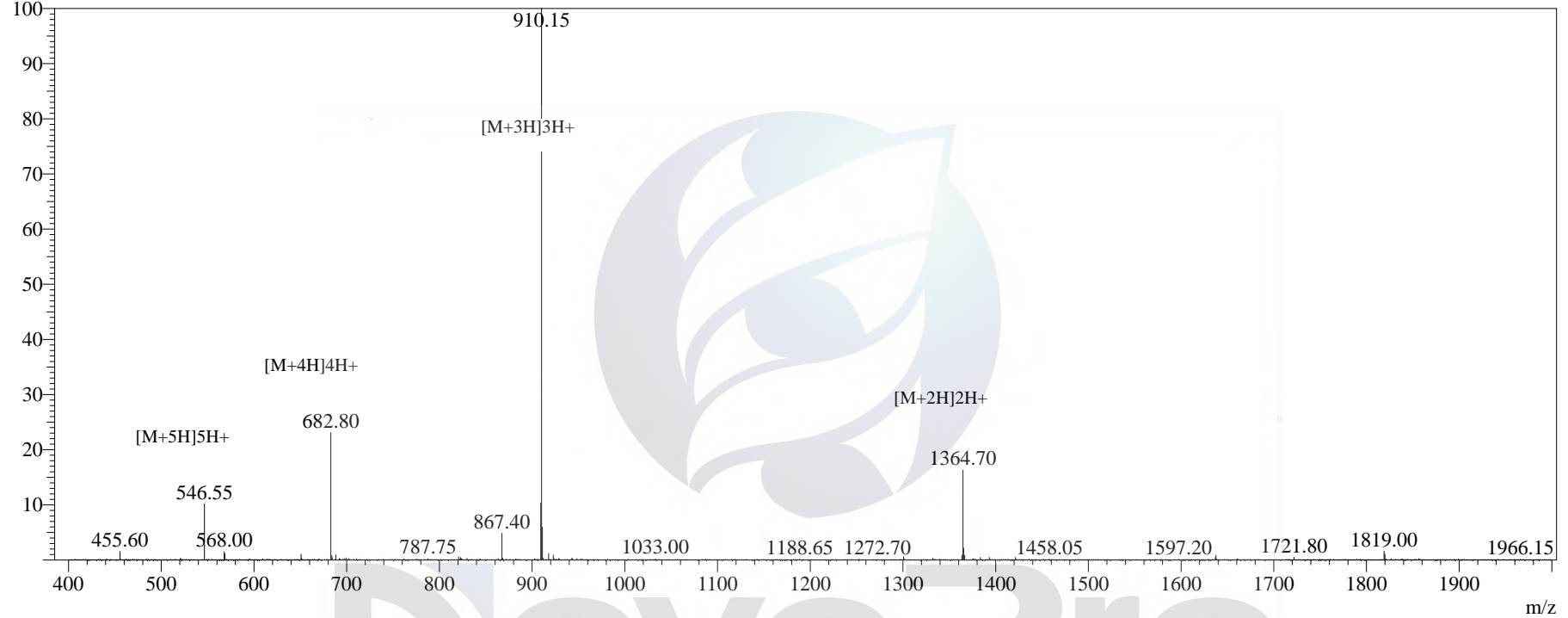


Peak Table

Detector A 214nm				
Peak#	Ret. Time	Area	Height	Area%
1	15.296	7178	1067	0.212
2	17.822	22463	1930	0.663
3	18.131	3293879	488440	97.275
4	18.379	5025	1159	0.148
5	18.964	54545	8398	1.611
6	19.555	2311	366	0.068
7	20.304	766	115	0.023
Total		3386167	501475	100.000

MS Spectrum

Positive Intensity



Sample Information

Dissolution method :5% HAC+8% ACN+87% H2O  
Date Acquired :2022/02/10 15:25:02  
Injection Volume :0.2ul  
Block Temp :200

Interface :ESI  
Nebulizing Gas Flow :1.50L/min  
CDL Temp :250C  
CDL Volt :0v

Prerod Bias :+4.5kv  
Detector :-.2kv  
T.Flow :0.2ml/min  
B.conc :50% H2O/50% MEOH

Order ID :GTA33955-5  
Name :Thymosinb4(16-38)  
Sequence :KLKKTETQEKNPLPSKETIEQEK(Acetate Salt)  
Lot.No :GTA33955-5-0117  
Theoretical :2727.08  
Observed :2727.45