

**CERTIFICATE OF ANALYSIS**

<b>Product Name</b>	Vasoactive intestinal polypeptide, VIP, Cat.#: 312079
<b>Lot No.</b>	MTFA30550-1007
<b>Sequence</b>	HSDAVFTDNYTRLRKQMAVKKYLNSILN
<b>Dissolution condition</b>	100%H <sub>2</sub> O
<b>Length</b>	33AA
<b>Modification</b>	N/A
<b>Molecular Weight (MW)</b>	3326.78
<b>Storage</b>	-20°C

<b>Test Items</b>	<b>Specifications</b>	<b>Results</b>
<b>MW by MS</b>	3226.80	Conforms
<b>Purity by HPLC</b>	>95%	95.368%
<b>Peptide Content</b>	N/A	N/A
<b>Moisture content</b>	N/A	N/A
<b>Acetic acid content</b>	N/A	N/A
<b>Appearance</b>	White to off-white lyophilized powder	Conforms
<b>Quantity</b>	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:



Oct/23/2023



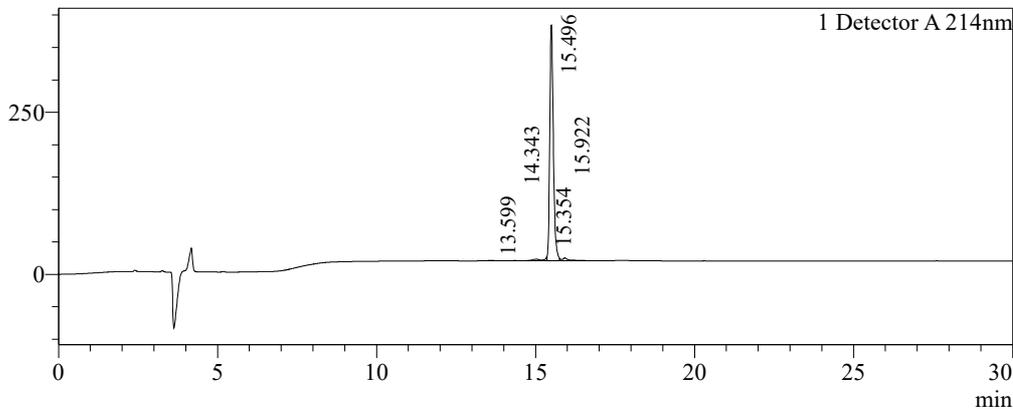
### Sample Information

Order ID :MTFA30550  
 Name :Vasoactive intestinal polypeptide  
 Sequence :HSDAVFTDNYTRLRKQMAVKKYLNSILN  
 Lot. No :MTFA30550-1007  
 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 :Phenomenex Luna® 5 µm C18(2) (4.6\*250mm\*5 µm)  
 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

mV

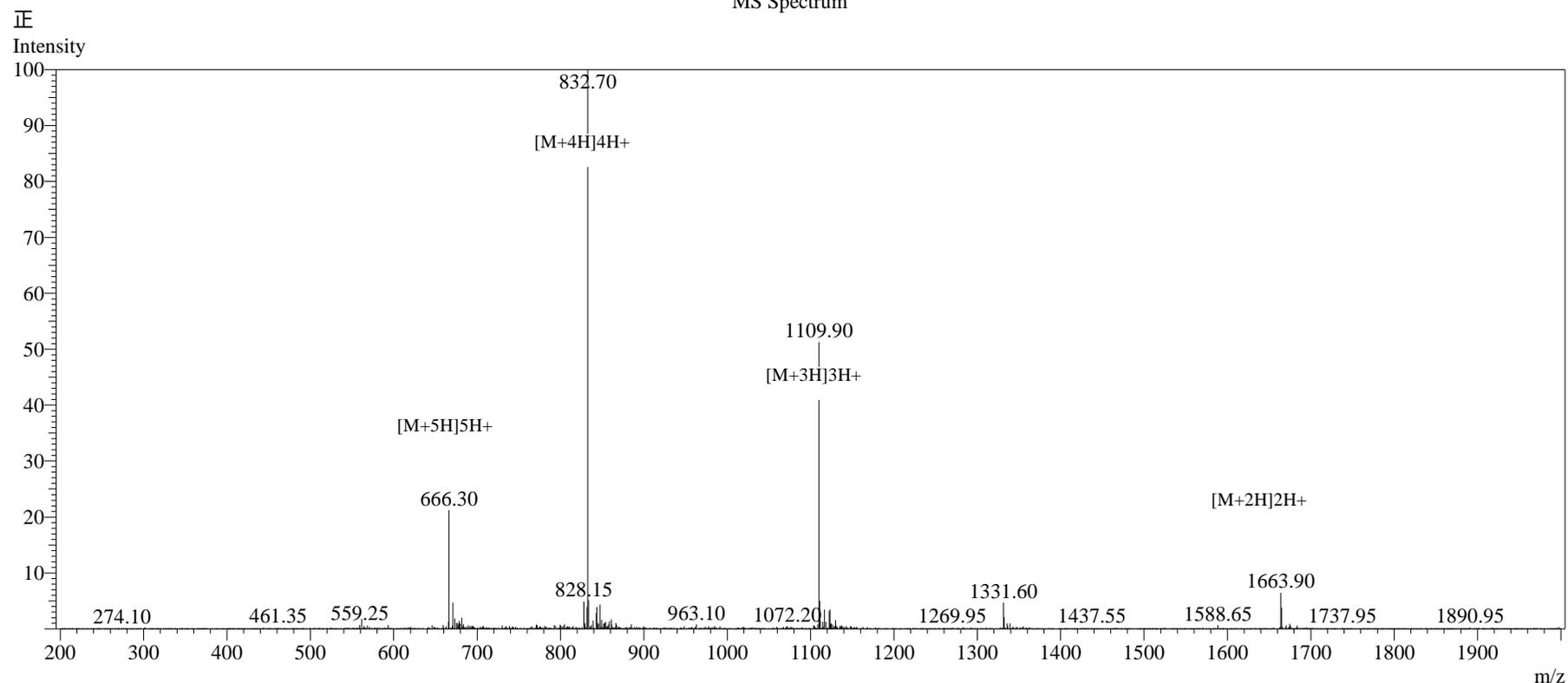


### Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	13.599	4685	461	0.157
2	14.343	1754	281	0.059
3	15.354	62322	5814	2.083
4	15.496	2853716	363258	95.368
5	15.922	69839	4356	2.334
Total		2992316	374169	100.000

## MS Spectrum



## Sample Information

Dissolution method	:15% ACN+85% H <sub>2</sub> O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2023/10/20 10:04:15	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 <sub>2</sub> O/50% MEOH

Order ID	:MTFA30550
Name	:Vasoactive intestinal polypeptide
Sequence	:HSDAVFTDNYTRLRKQMAVKKYLNSILN
Lot.No	:MTFA30550-1007
Theoretical	:3326.78
Observed	:3326.80