

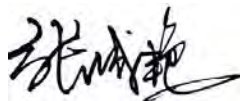
CERTIFICATE OF ANALYSIS

Product Name	MSP-1 P2, Malaria Merozoite Surface Peptide-1, Cat.#: 314139
Lot No.	MTFA30100-2-0420 (TFA removed)
Sequence	GYRKPLDNIKDNVVGKMEDYIKK(Acetate Salt)
Dissolution condition	100%H2O
Length	22AA
Modification	acetate salt
Molecular Weight (MW)	2625.02
Storage	-20°C

Test Items	Specifications	Results
MW by MS	2625.56	Conforms
Purity by HPLC	>95%	99.437%
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

May/05/2023

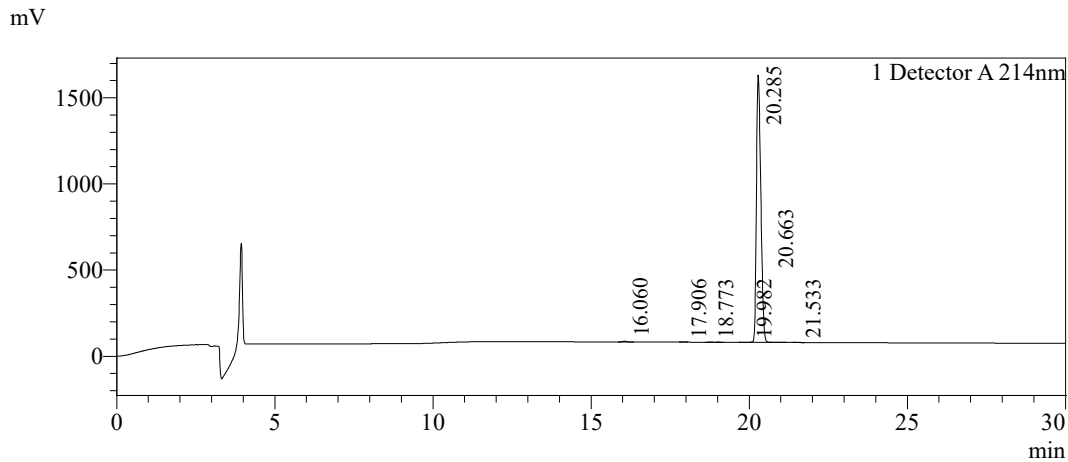


Sample Information

Order ID :MTFA30100-2
 Name :MSP-1 P2, Malaria Merozoite Surface Peptide-1, Cat.#: 314139
 Sequence :GYRKPLDNIKDNVKGKMEDYIKK(Acetate Salt)
 Lot. No :MTFA30100-2-0420
 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	15
30.00	Pumps	B.Conc	45
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	15
50.00	Controller	Stop	

Chromatogram

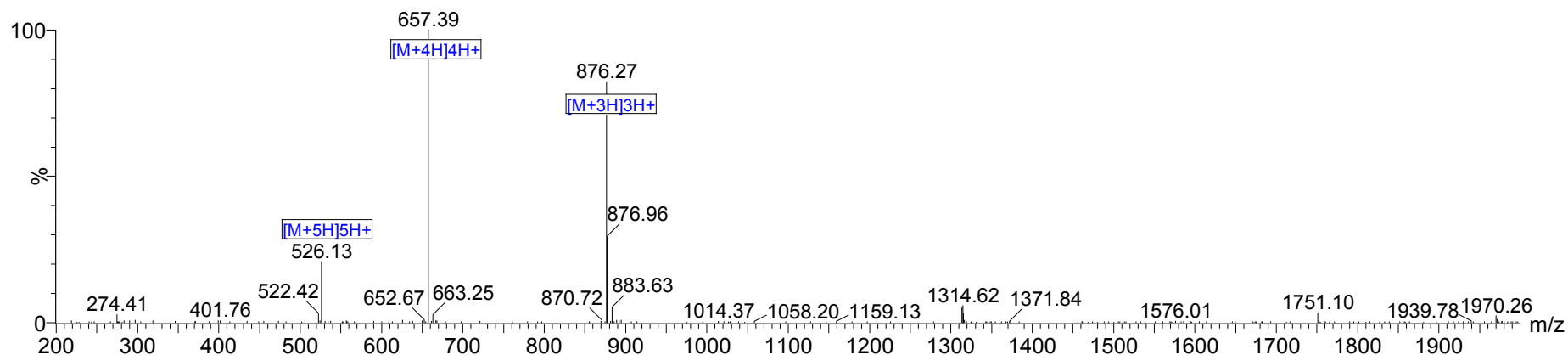


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	16.060	39482	4570	0.261
2	17.906	6681	1043	0.044
3	18.773	18982	1601	0.125
4	19.982	8919	878	0.059
5	20.285	15044328	1551377	99.437
6	20.663	6893	592	0.046
7	21.533	4291	547	0.028
Total		15129578	1560608	100.000

MS Spectrum

 Positive
Intensity


Dissolution method	:15%ACN+85%H2O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:5/6/2023 11:12:39	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%H2O/50%MEOH

Order ID	: MTF30100-2
Name	: MSP-1 P2, Malaria Merozoite Surface Peptide-1, Cat.#: 314139
Sequence	: GYRKPLDNIKDNVVGKMEDYIKK(Acetate Salt)
Lot.No	: MTF30100-2-0420
Theoretical	: 2625.02
Observed	: 2625.56