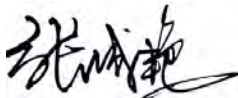

CERTIFICATE OF ANALYSIS

Product Name	Bacteriocin Plantaricin K (plnK), Cat.#: 314122
Lot No.	MTFA30408-9-0824
Sequence	RRSRKNGIGYAIGYAFGAVERA VLGGSRDYNK
Dissolution condition	100%H ₂ O
Length	32AA
Modification	N/A
Molecular Weight (MW)	3502.90
Storage	-20°C

Test Items	Specifications	Results
MW by MS	3502.80	Conforms
Purity by HPLC	>95%	95.645%
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

Sep/28/2023

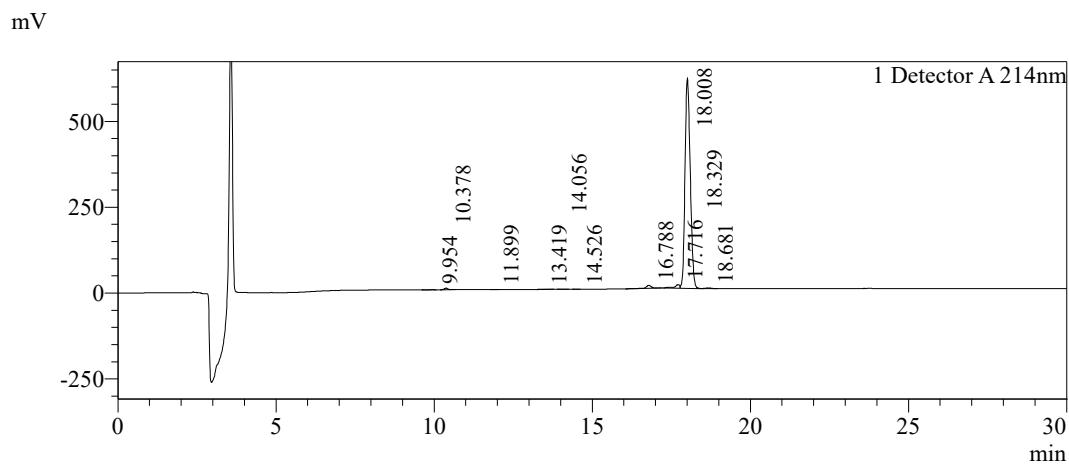


Sample Information

Order ID	:MFA30408-9
Name	:Bacteriocin Plantaricin plnK peptide
Sequence	:RRSRKNGIGYAIGYAFGAVERAVLGGSRDYNK
Lot. No	:MFA30408-9-0824
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%H ₂ O
Inj. Volume	: 40ul

Time	Module	Action	Value
0.01	Pumps	B.Conc	25
30.00	Pumps	B.Conc	55
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	25
50.00	Controller	Stop	

Chromatogram

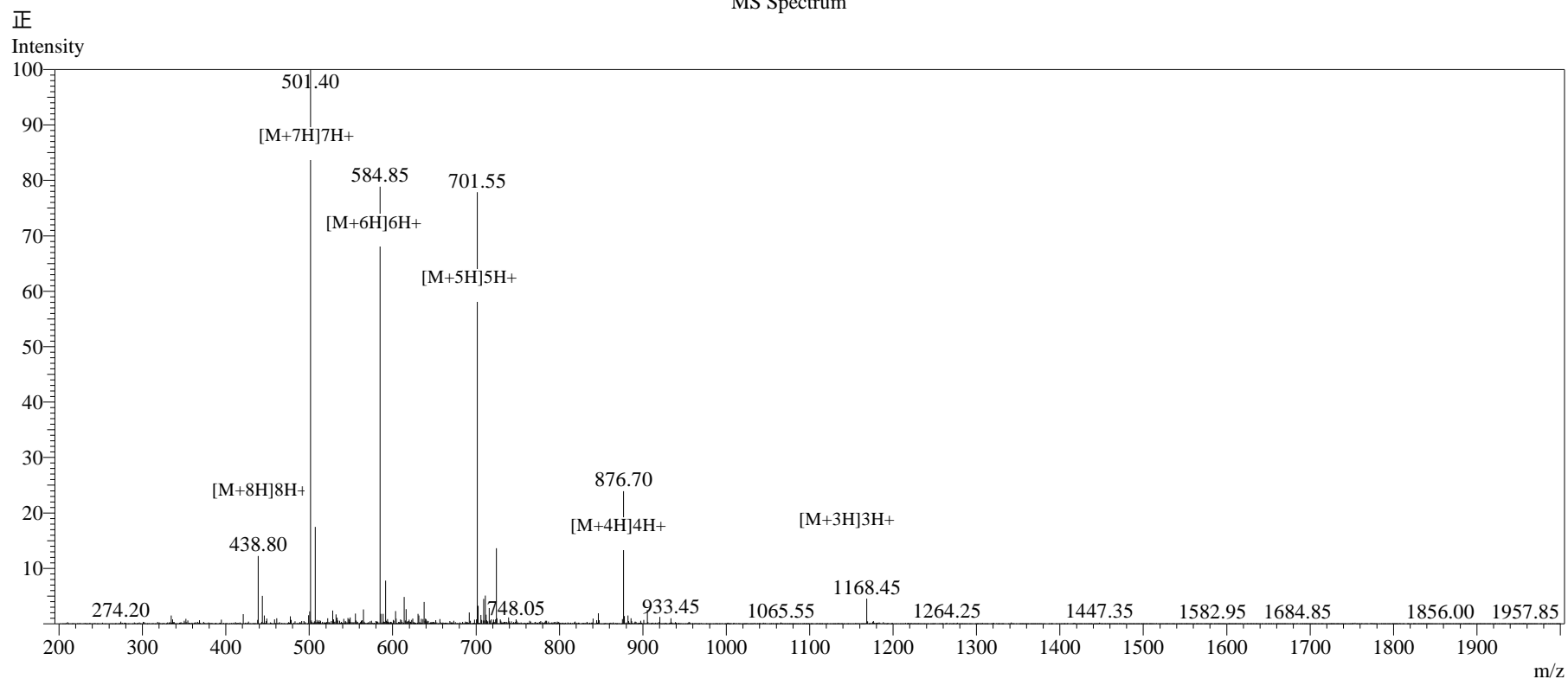


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	9.954	3324	248	0.045
2	10.378	41232	4768	0.559
3	11.899	1926	245	0.026
4	13.419	4437	361	0.060
5	14.056	1572	176	0.021
6	14.526	939	140	0.013
7	16.788	113094	8879	1.532
8	17.716	129284	10488	1.752
9	18.008	7058922	610574	95.645
10	18.329	3652	1709	0.049
11	18.681	21982	1800	0.298
Total		7380366	639388	100.000

MS Spectrum



Sample Information

Dissolution method	:15% ACN+85% H ₂ O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2023/09/12 11:29:17	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 ₂ O/50% MEOH

Order ID	:MTFA30408-9
Name	:Bacteriocin Plantaricin plnK peptide
Sequence	:RRSRKNGIGYAIGYAFGAVERAVLGGSRDYNK
Lot.No	:MTFA30408-9-0824
Theoretical	:3502.90
Observed	:3502.80