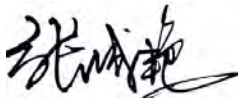

CERTIFICATE OF ANALYSIS

Product Name	Plantaricin S alpha chain, Cat.#: 303479
Lot No.	MTFA30408-6-0824
Sequence	RNKLAYNMGHYAGKATIFGLAAWALLA
Dissolution condition	100%H2O
Length	27AA
Modification	N/A
Molecular Weight (MW)	2922.39
Storage	-20°C

Test Items	Specifications	Results
MW by MS	2922.40	Conforms
Purity by HPLC	>95%	95.394%
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

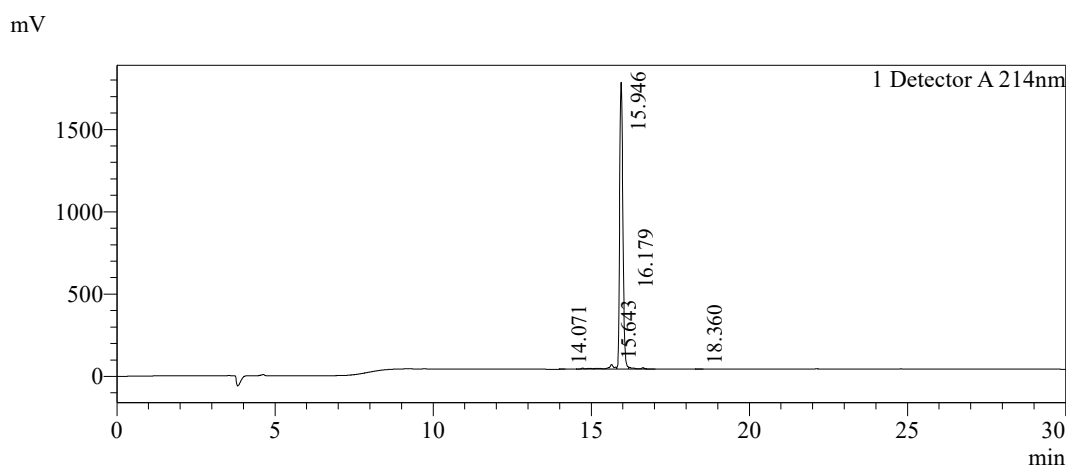


Sample Information

Order ID	:MTFA30408-6
Name	:Plantaricin S alpha chain
Sequence	:RNKLAYNMGHYAGKATIFGLAAWALLA
Lot. No	:MTFA30408-6-0824
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	: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	30
30.00	Pumps	B.Conc	60
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	30
50.00	Controller	Stop	

Chromatogram

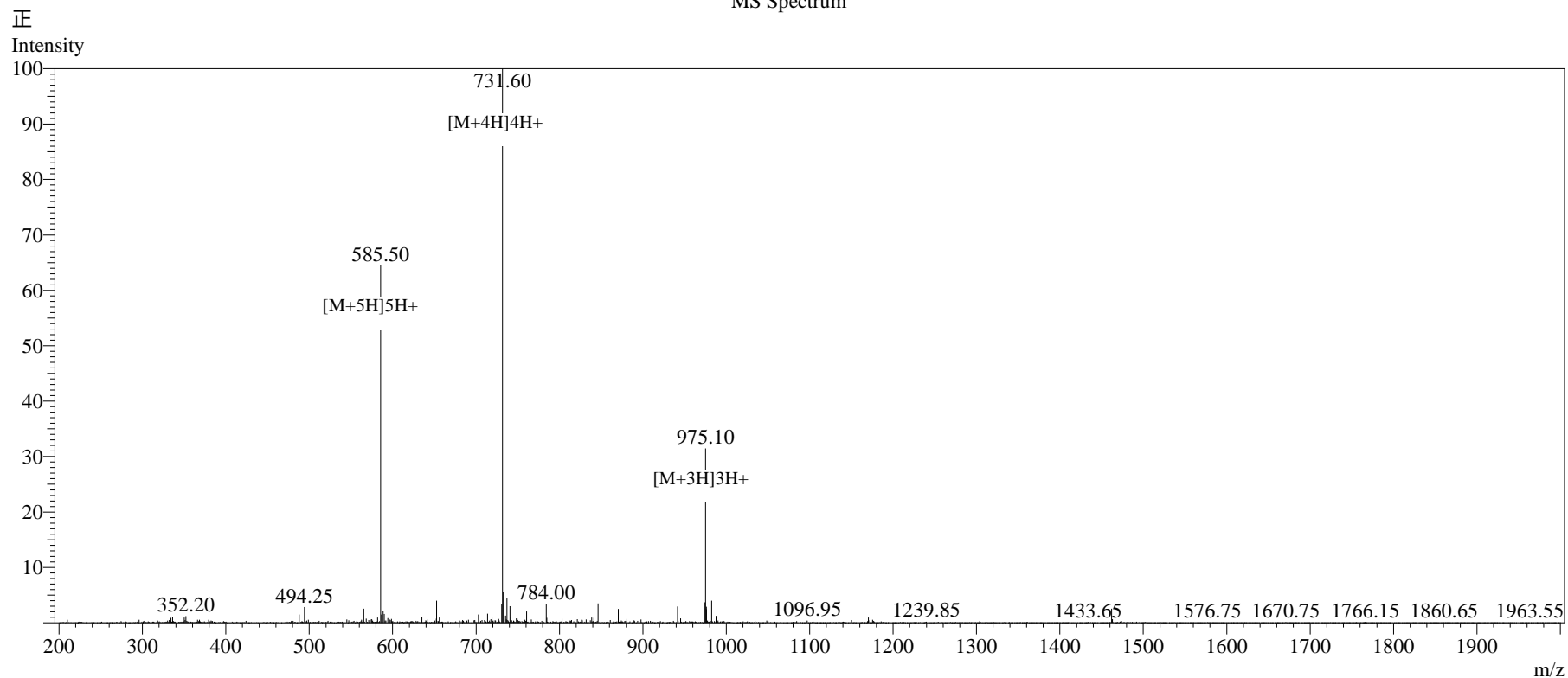


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	14.071	2303	453	0.018
2	15.643	423855	27603	3.255
3	15.946	12420145	1742003	95.394
4	16.179	167071	12610	1.283
5	18.360	6498	1250	0.050
Total		13019872	1783917	100.000

MS Spectrum



Sample Information

Dissolution method	:15% ACN+85% H ₂ O	Interface	:ESI	Prerod Bias	:+4.5kv
Date Acquired	:2023/09/13 13:25:21	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	:MTFA30408-6
Name	:Plantaricin S alpha chain
Sequence	:RNKLAYNMGHYAGKATIFGLAAWALLA
Lot.No	:MTFA30408-6-0824
Theoretical	:2922.39
Observed	:2922.40

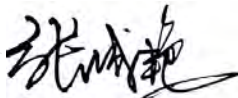
CERTIFICATE OF ANALYSIS

Product Name	Plantaricin S beta chain
Lot No.	MTFA30408-7-0824
Sequence	KKKKQSWYAAAGDAIVSFGEGFLNAW
Dissolution condition	100%H ₂ O
Length	26AA
Modification	N/A
Molecular Weight (MW)	2873.23
Storage	-20°C

Test Items	Specifications	Results
MW by MS	2873.00	Conforms
Purity by HPLC	>95%	95.484%
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

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Certified by:



Quality Assurance Department

Sep/28/2023

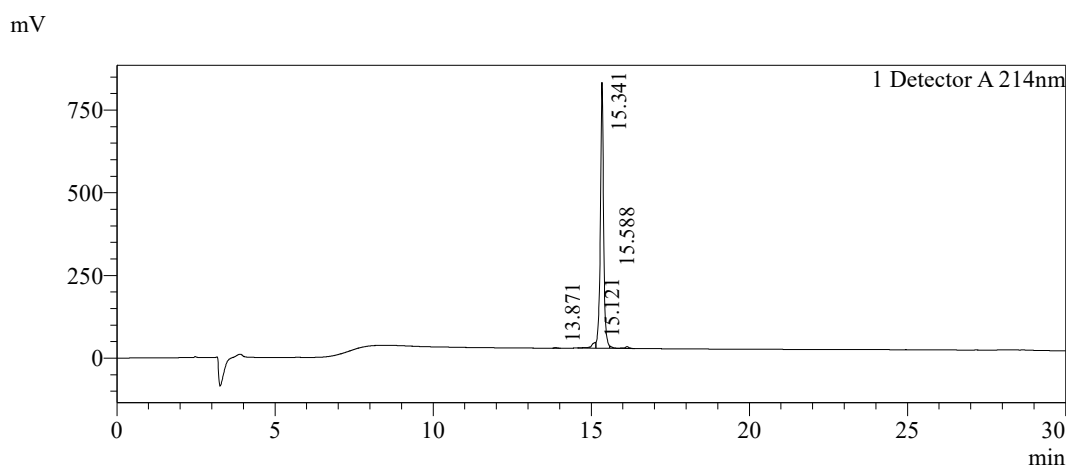


Sample Information

Order ID :MTFA30408-7
 Name :Plantaricin S beta chain
 Sequence :KKKKQSWYAAAGDAIVSFGEGFLNAW
 Lot. No :MTFA30408-7-0824
 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 :Phenomenex Luna® 5 µm C18(2) (4.6*250mm*5 µm)
 Dissolution method :100%H2O
 Inj. Volume : 45ul

Time	Module	Action	Value
0.01	Pumps	B.Conc	30
30.00	Pumps	B.Conc	60
33.00	Pumps	B.Conc	100
38.00	Pumps	B.Conc	100
40.00	Pumps	B.Conc	30
50.00	Controller	Stop	

Chromatogram

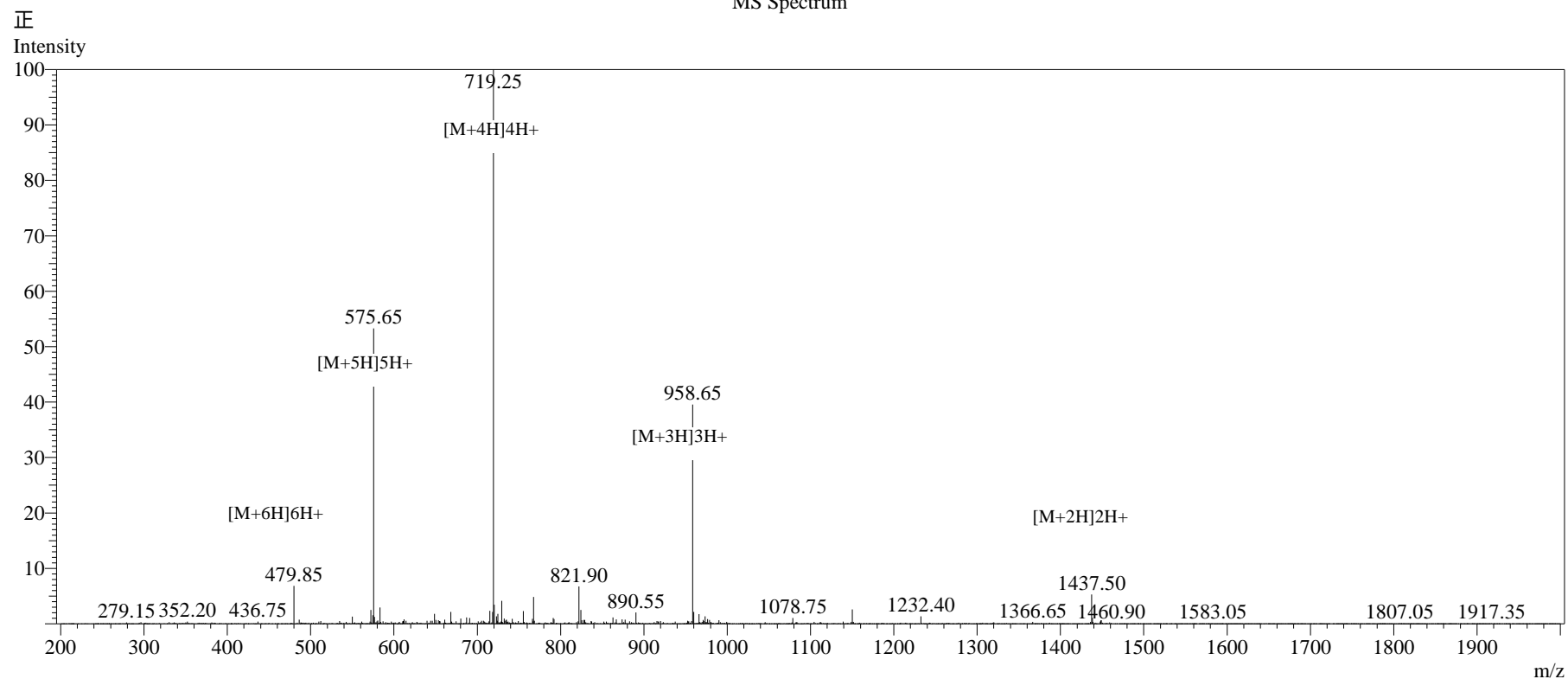


Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	13.871	9706	1778	0.163
2	15.121	171823	16795	2.887
3	15.341	5683332	803954	95.484
4	15.588	87247	7343	1.466
Total		5952108	829870	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 11:19:45	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	:MTFA30408-7
Name	:Plantaricin S beta chain
Sequence	:KKKKQSWYAAAGDAIVSFGEGFLNAW
Lot.No	:MTFA30408-7-0824
Theoretical	:2873.23
Observed	:2873.00