



CERTIFICATE OF ANALYSIS

Product Name	Sermorelin (CAT# 300020)
Lot No.	22437
Sequence	H-Tyr-Ala-Asp-Ala-Ile-Phe-Thr-Asn-Ser-Tyr-Arg-Lys-Val-Leu-Gly-Gln-Leu-Ser-Ala-Arg-Lys-Leu-Leu-Gln-Asp-Ile-Met-Ser-Arg-NH ₂
Dissolution condition	100% H ₂ O
Length	29 AA
Modification	Acetate salt
Molecular Weight	3357.9g/mol

	Specifications	Results
Strength	5mg	5.21mg
Appearance	White to off-white lyophilized powder	Conforms
pH value	6.0-8.0	7.2
Purity	≥98.0%	99.2%
Impurity	Single Impurity ≤1.0%	0.4%
	Total Impurity ≤2.0%	0.8%

Certified by:

Analytical Chemist





SAMPLE INFORMATION

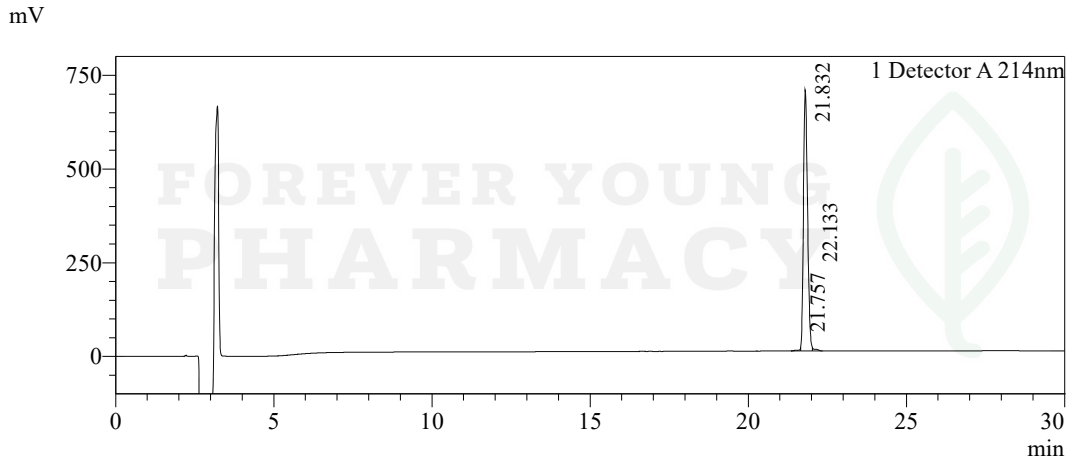
Name :Sermorelin 5mg
 Sequence :H-Tyr-Ala-Asp-Ala-Ile-Phe-Thr-Asn-Ser-Tyr-Arg-Lys-Val-Leu-Gly-Gln-Leu-Ser-Ala-Arg-Lys-Leu-Leu-Gln-Asp-Ile-Met-Ser-Arg-NH2

Lot. No : 22452

Pump A :0.1%Trifluoroacetic in 100% water
 Pump B :0.1%Trifluoroacetic in 100% acetonitrile
 Total Flow :1.0 ml/min
 Wavelength :214nm
 Analytical column type :Agilent ZORBAX StableBond 5 µm C18(2) (4.6*150mm*5 µm)
 Dissolution method :100%H2O
 Inj. Volume :20ul

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



Peak Table

Detector A 214nm

Peak#	Ret. Time	Area	Height	Area%
1	21.757	33418	6636	0.429
2	21.832	6232288	696295	99.2
3	22.133	55467	7941	0.398

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Conclusion

1. One 3 mL vial was received by customer on 06/26/2024. The vials contained a white lyophilized powder of unknown substance thought to be sermorelin 5mg. A lot number was not provided, however the vial is 3ml of lyophilized powder with a clear/silver top.

2. The sample was analyzed using Reverse Phase High Performance Liquid Chromatography (RP-HPLC) and determined to contain 99.2% sermorelin 0.4% acetate, and 0.4% trifluoroacetic acid.

Please Note:

Trifluoroacetic acid (TFA) and acetate are both commonly used in peptide synthesis and purification.

Acetate:

Acetate (CH_3COO^-) is a common counterion used in peptide formulations due to its solubility and stability. Acetate is generally considered safe for use in pharmaceuticals.

Trifluoroacetic acid (TFA):

TFA is used to cleave peptides from their respective resin after solid-phase peptide synthesis (SPPS). There are some potential risks to consider

Local Irritation:

TFA is acidic and can cause irritation at the injection site such as redness, swelling, and discomfort may occur.

Systemic Effects and Toxicity:

TFA can be absorbed into the bloodstream.

In high concentrations (>1.0% TFA), it may affect organs or tissues and is considered toxic.

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