

## CERTIFICATE OF ANALYSIS

## Product Information

Product Name:	Semax
Lot No.:	SX13520250819-30
Sequence:	Met-Glu-His-Phe-Pro-Gly-Pro
Modifications:	N/A

## Quality Control

Test Items	Specifications	Results
Appearance	White to off-white lyophilized powder	Conforms
Molecular Weight (MS)	813.92±1.0 Da	813.60 Da
Purity by HPLC	>98%	99.5%
Retention Time (HPLC)	±0.2min of Standard	Conforms
Net Peptide Content	≥30mg	34.1mg
Solubility	30 mg/1ml H <sub>2</sub> O	Clearly soluble
Acetic acid Content	≤12.0%	3.2%
TFA Content	≤0.500%	Conforms
DCM Content	≤0.060%	N.D.
DMF Content	≤0.088%	N.D.
Total Aerobic Count	≤100CFU/g	Conforms
Yeast & Molds Count	≤100CFU/g	Conforms
Endotoxins	≤0.5EU/mg	Conforms

Storage Conditions:	-20°C
Quality Control:	Mike P.
Date of Analysis:	August 2025

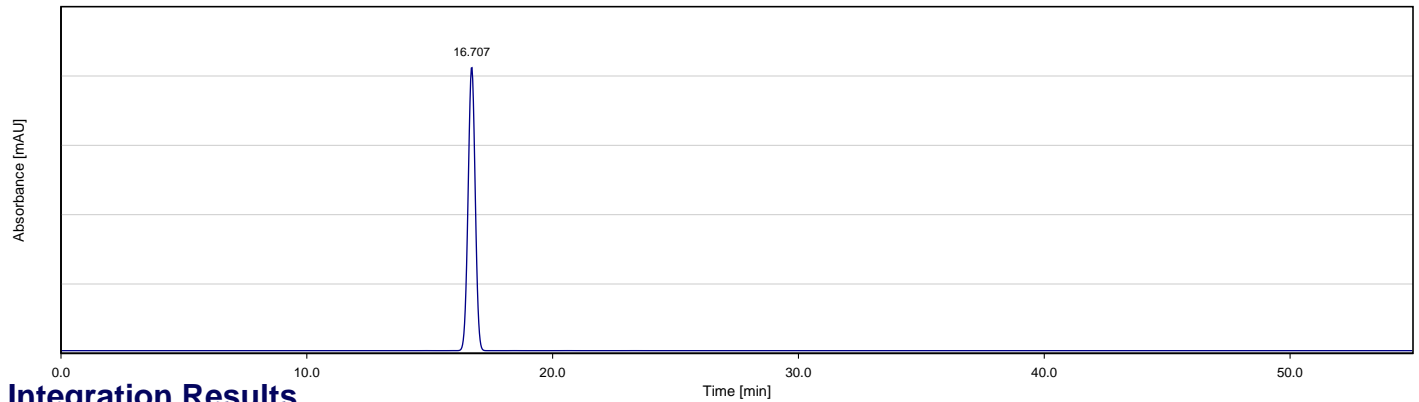
## Sample Information

Lot. No	SX13520250819-30
Pump A	0.1% trifluoroacetic in 100% water
Pump B	0.1% trifluoroacetic in 100% acetonitrile
Total Flow	0.8ml/min
Wavelength	220nm
Analytical column type	Phenomenex Luna 3um C18 (2) (4.6*150mm*3um)
Dissolution method	100%H2O
Inj. Volume	8ul

## Gradient Program

Time	Module	Action	Value
0.01	Pumps	B.Conc	10
25.00	Pumps	B.Conc	35
30.00	Pumps	B.Conc	90
40.00	Pumps	B.Conc	90
41.00	Pumps	B.Conc	10
55.00	Controller	Stop	

## Chromatogram

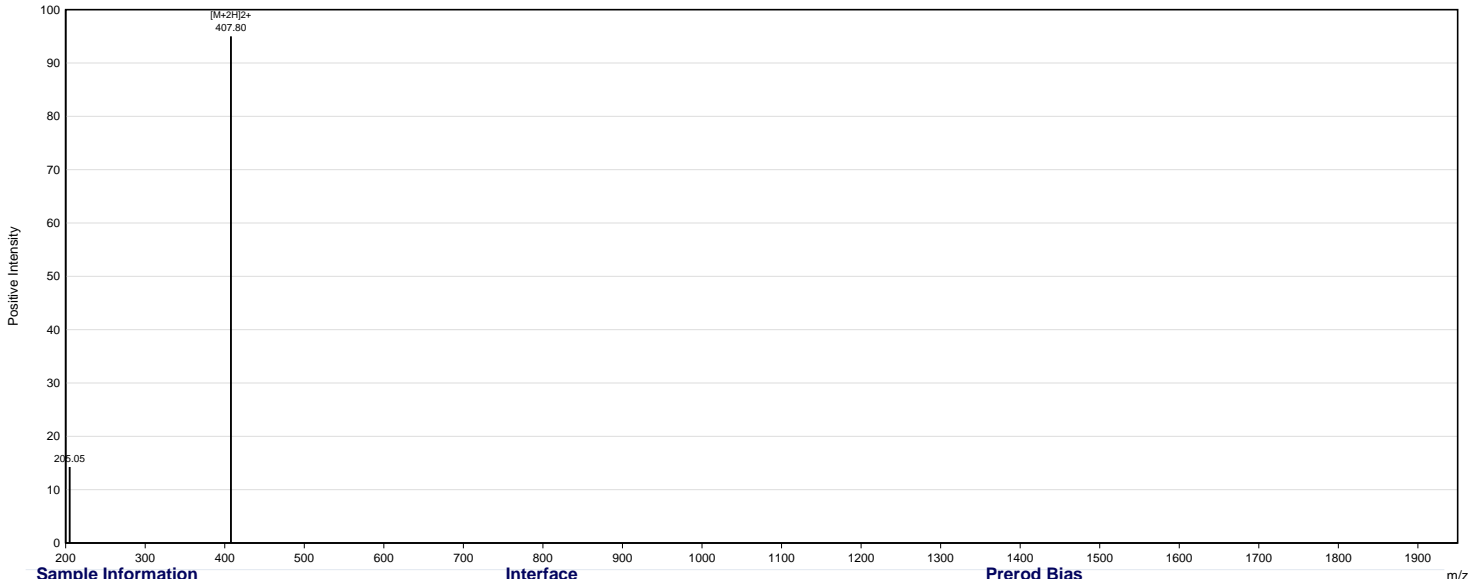


## Integration Results

No.	Ret. Time	Area	Height	Relative Area %	Amount
1	14.863	14684	1272	0.105	n.a.
2	15.977	25957	2050	0.186	n.a.
3	16.707	1388364	11301444	99.469	n.a.
4	17.391	4091	412	0.029	n.a.
5	17.733	2157	267	0.015	n.a.
6	18.462	12509	1278	0.090	n.a.
7	20.606	8612	1261	0.062	n.a.
8	23.354	6052	894	0.043	n.a.
<b>Total</b>		<b>13960427</b>	<b>1137578</b>	<b>100.000</b>	<b>n.a.</b>

**Conclusion: Main peak at RT 16.707 min, purity 99.47% by area**

## MS Spectrum



### Sample Information

Dissolution method :3%HAC+25%ACN+72%H2O  
Injection Volume :1ul

### Interface

Interface :ESI  
Nebulizing Gas Flow :1.50L/min  
CDL Temp :250C  
CDL Volt :0v  
Block Temp :200

### Prerod Bias

Prerod Bias :+4.5kv  
Detector :-0.2kv  
T.Flow :0.2ml/min  
B. conc :30%H2O/70%MeOH

---

<b>Lot No.</b>	SX13520250819-30
----------------	------------------

---

<b>Theoretical</b>	813.92
--------------------	--------

---

<b>Observed</b>	813.60
-----------------	--------

---