

## CERTIFICATE OF ANALYSIS

## Product Information

Product Name:	GHK-Cu
Lot No.:	VI620260107-50
Sequence:	Gly-His-Lys-Cu
Modifications:	N/A

## Quality Control

Test Items	Specifications	Results
Appearance	Blue lyophilized powder	Blue lyophilized powder (Conforms)
Molecular Weight (MS)	401.91±1.0 Da	340.15 (401.91-Cu2+) Da
Purity by HPLC	>98%	98.3%
Retention Time (HPLC)	±0.2min of Standard	Conforms
Net Peptide Content	≥50mg	55.7mg
Solubility	50mg/1ml H2O	Clearly soluble
Acetic acid Content	≤15.0%	11.3%
TFA Content	≤0.500%	Conforms
DCM Content	≤0.060%	0.008%
DMF Content	≤0.088%	0.022%
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:	January 2026

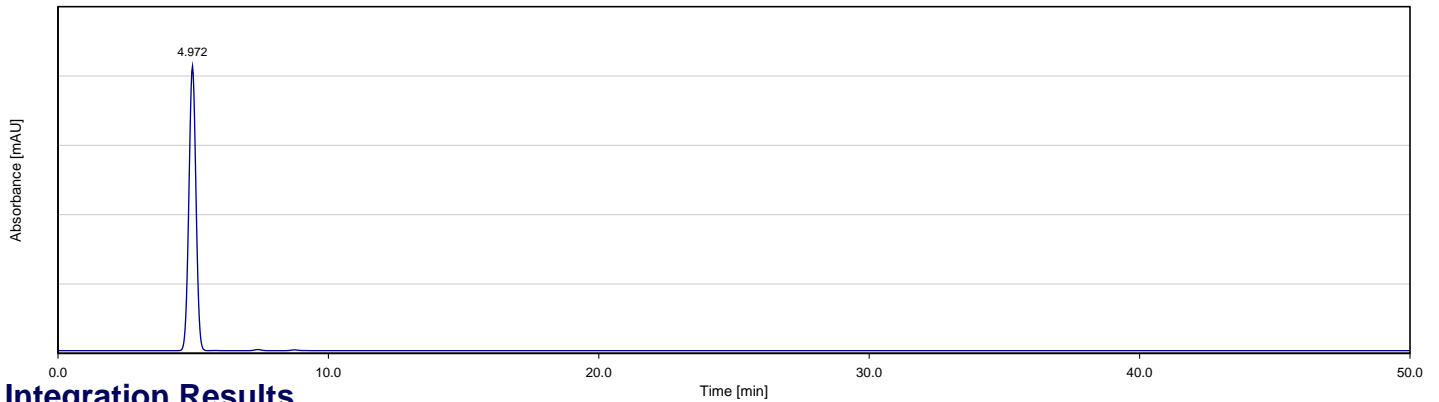
## Sample Information

Lot. No	VI620260107-50
Pump A	0.1% trifluoroacetic in 100% water
Pump B	0.1% trifluoroacetic in 100% acetonitrile
Total Flow	0.4ml/min
Wavelength	215nm
Analytical column type	Inertsil ODS-3 (4.6*250mm*3um)
Dissolution method	100%H2O
Inj. Volume	10ul

## Gradient Program

Time	Module	Action	Value
0.01	Pumps	B.Conc	5
20.00	Pumps	B.Conc	15
25.00	Pumps	B.Conc	90
35.00	Pumps	B.Conc	90
36.00	Pumps	B.Conc	5
50.00	Controller	Stop	

## Chromatogram

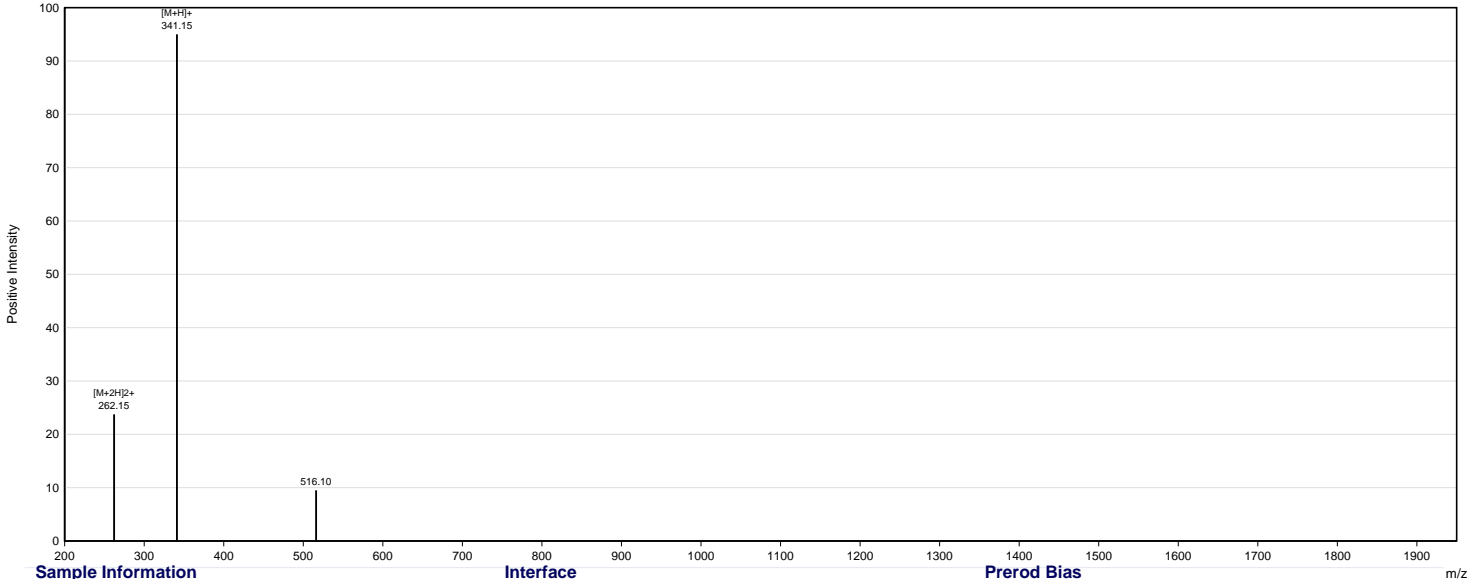


## Integration Results

No.	Ret. Time	Area	Height	Relative Area %	Amount
1	4.972	5739646	867432	98.299	n.a.
2	5.200	52628	4796	0.901	n.a.
3	5.801	2956	495	0.051	n.a.
4	7.390	22110	3282	0.379	n.a.
5	8.745	18790	2324	0.322	n.a.
6	9.113	2815	312	0.048	n.a.
<b>Total</b>		<b>5838945</b>		<b>100.000</b>	<b>n.a.</b>

**Conclusion: Main peak at RT 4.972 min, purity 98.30% 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

Lot No.	VI620260107-50
Theoretical	401.91
Observed	340.15 (401.91-Cu2+)