

CERTIFICATE OF ANALYSIS

GHK-Cu - 50 mg

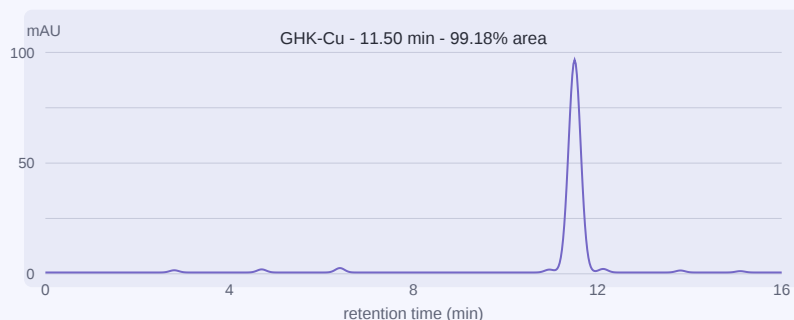
Copper(II) tripeptide complex - sequence GHK - lyophilised

Material	GHK-Cu	Client	novumpeptides.com	Received	2026-04-01 at 2-8 C
Batch / lot	CU-01-5Q2	Label claim	50 mg	Analysed	2026-04-02 to 2026-04-03

TEST RESULTS

ATTRIBUTE	RESULT	SPECIFICATION	METHOD	VERDICT
Peptide identity	Conforms	Matches reference	MA-MS-019 / LC-HRMS	Conforms
Complex purity (area %)	99.18%	$\geq 99.00\%$	MA-HPLC-033 / UV 220	Pass
Largest related species	0.24%	$\leq 0.50\%$	MA-HPLC-033 / UV 220	Pass
Total related species	0.82%	$\leq 1.00\%$	MA-HPLC-033 / UV 220	Pass
Complex per vial (n=2)	49.90 mg	45.00-55.00 mg	MA-ASSAY-033 / HPLC-UV	Pass
Cu:peptide molar ratio	1.00 mol/mol	0.95-1.05 mol/mol	MA-ICP-007 / ICP-OES	Pass
Water content	3.70%	$\leq 8.00\%$	MA-KF-004 / Karl Fischer	Pass
Residual acetonitrile	145 ppm	≤ 410 ppm	MA-GC-006 / HS-GC-FID	Pass

RP-UHPLC processed trace, UV detection



Related species > 0.05%

uncomplexed peptide	0.24%
Cu-deficient complex	0.18%
His variant	0.13%
deletion sequence	0.10%
late-eluting variant	0.07%
unresolved peaks	0.10%

Related species were assigned by orthogonal reference comparison and mass-spectrometric or chromatographic evidence. Mean area percentages; reporting threshold 0.05%.

Conclusion

Peptide identity, Cu(II) complexation and content met the stated criteria. Mean complex content was 49.90 mg/vial; chromatographic purity was 99.18% and the Cu:peptide molar ratio was 1.00.

Copper-peptide identity combines peptide LC-HRMS with ICP-OES stoichiometry; chromatographic purity alone does not establish metal loading.

Analytical review

Ines Abadi *I. Abadi*

Quality review

Marcus Oyelaran

Approval date: 2026-04-04 *M. Oyelaran*

Decision rule: guarded acceptance; reported outcomes account for method uncertainty and remain within the stated project specifications.