

Certificate of Analysis

Product Information

Product Name: GHK-Cu (Copper Tripeptide)
CAS Number: 49557-75-7
Molecular Formula: C14H24N6O4Cu
Molecular Weight: 340.2 g/mol
Appearance: Blue to light blue lyophilized powder

Batch Information

Batch / Lot Number: GHK-Cu-2025-002
Quantity: 100mg
Date of Manufacture: 02-Sep-2025
Retest Date: 02-Sep-2027
Storage Conditions: -20 °C, dry and protected from light

Analytical Results

| Test | Specification | Result | Method |
|------------------------------|--|-----------------------------|--------------------------|
| Identity (Mass Spectrometry) | Consistent with theoretical mass of 340.2 Da | 340.3 Da (M+H) ⁺ | ESI-MS |
| Purity (HPLC) | ≥ 98.0 % (by area) | 99.2 % | RP-HPLC |
| Sequence Confirmation | As per GHK peptide sequence (Gly-His-Lys) | Confirmed | MS/MS, Edman degradation |
| Appearance | Blue to light blue lyophilized powder | Light blue powder | Visual |
| Solubility | Soluble in sterile water (≥1 mg/mL) | Pass | Visual |
| Residual Solvent | ≤ 0.5 % | <0.2 % | GC |
| Water Content (Karl Fischer) | ≤ 5.0 % | 2.3 % | KF titration |
| Acetate Content | Report only | 5.0 % | Ion chromatography |
| Peptide Content | ≥70 % | 74 % | Nitrogen analysis |
| Endotoxin | < 0.25 EU/mg | 0.07 EU/mg | LAL test |
| Microbial Limit Test | <100 CFU/g, no pathogens | Pass | USP <61>/<62> |

Compliance Statement

The above batch of **GHK-Cu** complies with the stated specifications. This batch of **GHK-Cu** meets all specified analytical and microbiological criteria and is suitable for **research use only**. Manufactured and tested under controlled conditions to ensure consistency, purity, and integrity.