



Certificate of Analysis

Sample Information

Product Name:	GHK-Cu + BPC-157 + TB-500 + KPV Lyophilized Peptide Blend
Composition:	GHK-Cu 50mg + BPC-157 10mg + TB-500 10mg + KPV 10mg
Client Name/Lot No:	BBGK-2025-11-010
CAS Numbers:	GHK-Cu: 89030-95-5 / BPC-157: 137525-51-0 / TB-500: 885340-08-9 / KPV: 820959-17-9
Total Peptide Content:	80mg per vial
Appearance:	White to off-white lyophilized powder
Solubility Condition:	Soluble in sterile water or 0.9% NaCl solution
Storage Conditions:	Store at 2–8°C, protect from light and moisture

Peptide Sequence Overview

GHK-Cu	Gly-His-Lys + Cu ²⁺
BPC-157	Gly-Glu-Pro-Pro-Pro-Gly-Lys-Pro-Ala-Asp-Asp-Ala-Gly-Leu-Val
TB-500	Ac-Ser-Asp-Lys-Pro-Asp-Met-Ala-Glu-Ile-Glu-Lys-Phe-Asp-K-Ser-K-Ile-Glu...
KPV	Lys-Pro-Val

Test Results

Test Parameter	Specifications	Results
Strength	80.00 mg	80.5 mg
Appearance	White to off-white lyophilized powder	Conforms
Purity (HPLC)	≥98.0% (each component)	GHK: 99.2%, BPC: 98.8%, TB: 99.0%, KPV: 99.1%
pH (1mg/mL in H ₂ O)	5.0–7.0	6.4
Single Impurity	≤1.0%	<0.5%
Total Impurities	≤2.0%	<1.0%
Heavy Metals	≤10 ppm	<10 ppm
Water Content (KF)	≤5.0%	2.30%

Test Parameters

Parameter	Specification
Mobile Phase A	0.1% TFA in water
Mobile Phase B	0.1% TFA in acetonitrile
Column	C18, 4.6 × 250 mm, 5 μm
Flow Rate	1.0 mL/min
Detection Wavelength	220 nm
Injection Volume	20 μL
Diluent	Sterile water

Conclusion

This formulation contains GHK-Cu 50mg, BPC-157 10mg, TB-500 10mg, and KPV 10mg in a single lyophilized vial. All components meet specification standards with purity $\geq 98\%$. The blend is suitable for cosmetic and laboratory research use.

Certified by

Name: Jie Wang

Title: Analytical Chemist

Date: 2025-11-10



Minglong Pharmaceutical Co., Ltd.