Gold Standard Analytics

Gold Standard Analytics LLC, Houston, TX

CERTIFICATE OF ANALYSIS

Report GSA-COA-000129-12903-20261125 · issued Nov 25, 2026

Luke Pritchett

PRODUCT	ORDER	SAMPLE
KLOW blend (GHK-Cu, KPV, BPC-157, TB-500)	GSA-2026-000129	129-03

LABEL	ISSUED
KLOW 80 mg/ml, 50/10/10/10	Nov 25, 2026



THE SAMPLE AS RECEIVED

IDENTITY

GHK-Cu, KPV, BPC-157, TB-500

4 declared components found

PURITY

99.86 %

HPLC-UV, 214 nm

GHK-CU

74.00 %

found by mass; share of the peptide UV area

KPV

8.80 %

found by mass; share of the peptide UV area

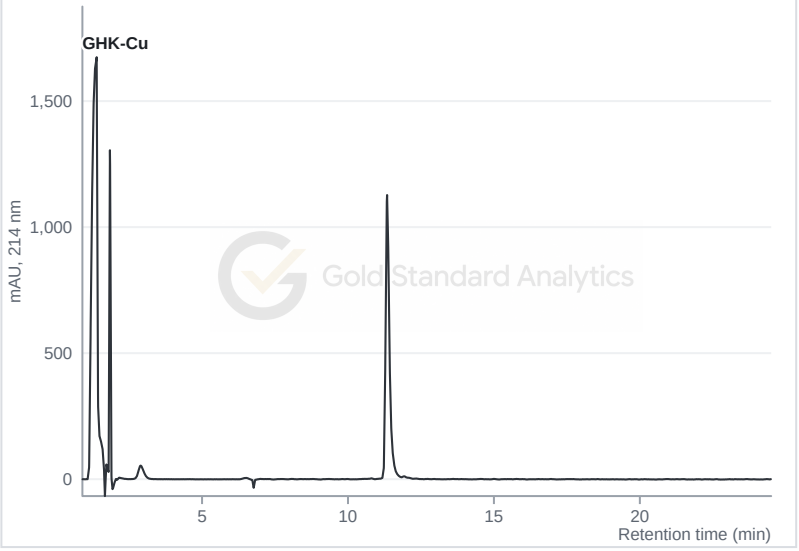
BPC-157 + TB-500 — **17.20 %**

one shared peak; share of the peptide UV area

Impurity analysis listed on the following page — **3 found**

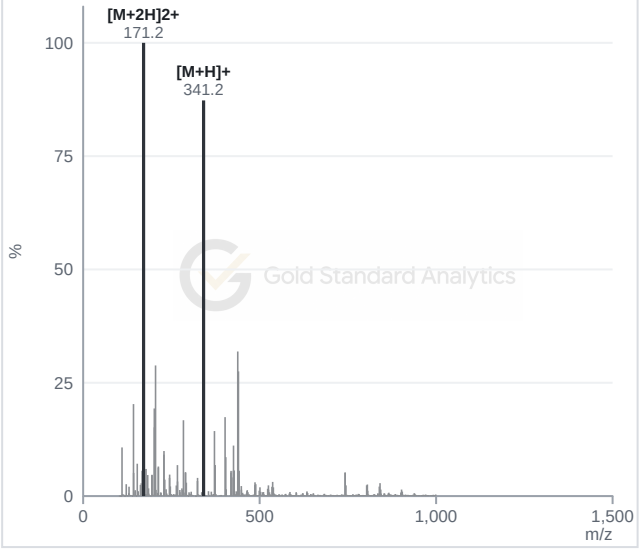
HPLC CHROMATOGRAM

UV, 214 nm



MASS SPECTRUM

main peak (1.39 min)



RELEASED BY

Ian Ebert

Laboratory Director · Nov 25, 2026

Scan to verify

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Results are not covered by ISO/IEC 17025 accreditation. Results relate only to the sample as received and tested.

The sample

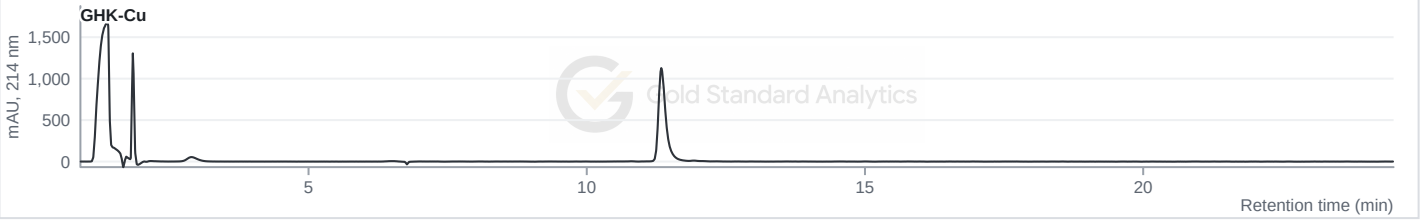
Order GSA-2026-000129 · Sample 129-03 · Luke Pritchett

Customer	**Luke Pritchett**	Prepared	**24 Nov 2026**
Order	**GSA-2026-000129**	Tested	**25 Nov 2026**
Sample	**129-03**	Tests	**Identity, Purity, Impurity breakdown**
Label	**KLOW 80 mg/ml, 50/10/10/10**		

Graphs

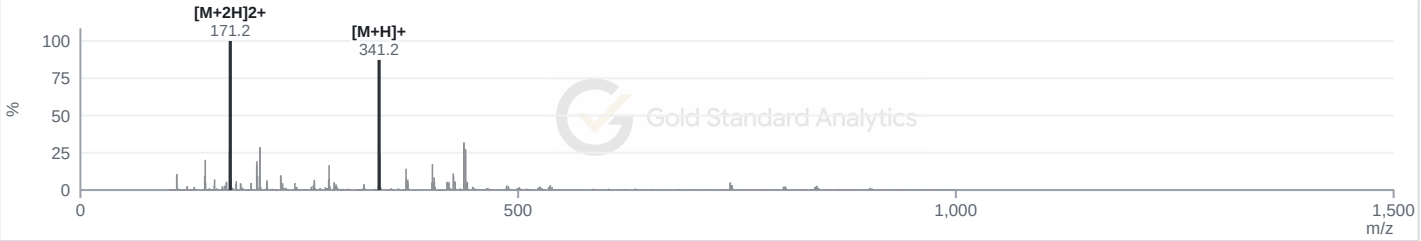
HPLC CHROMATOGRAM

HPLC chromatogram (UV, 214 nm) · mAU, 214 nm against Retention time (min)



MASS SPECTRUM

Mass spectrum of the main peak (1.39 min) · Counts against m/z



Results

Identity — **All declared components found** by their molecular mass: GHK-Cu (its peptide GHK, with the copper complex at m/z 402.1) at 1.19 min (m/z 341.2 and m/z 171.3; measured mass 340.4, expected 340.4); KPV at 2.91 min (m/z 343.2 and m/z 172.2; measured mass 342.3, expected 342.4); BPC-157 at 11.41 min (m/z 710.5 and m/z 474.0; measured mass 1,419.0, expected 1,419.5); TB-500 as full-length thymosin beta-4 at 11.41 min (m/z 993.5 and m/z 828.2; measured mass 4,963.8, expected 4,963.4). BPC-157 and TB-500 come off the column together. These retention times are from the 0.3 µL injection; the chromatogram shows the 6 µL injection, where the heavier load moves GHK-Cu to 1.39 min and KPV to 1.84 min.

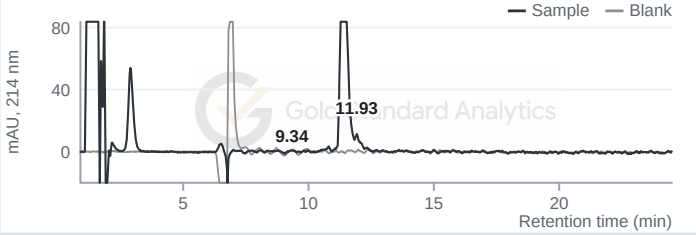
Purity — **99.86 %** by HPLC with UV detection at 214 nm (share of the total peak area), counting all declared components together. 3 impurities were found and are listed below. Forms of the peptides identified by mass are counted at any size; other peaks count above about 1.09 % of the smallest declared component's peak height. GHK-Cu, KPV, BPC-157 and TB-500 were too strong to measure in the 6 µL injection, so their peak area is taken from a 0.3 µL injection of the same solution, scaled by the injection volumes; peaks within 0.3 min of them could not be judged. At the 6 µL load KPV comes off the column as more than one hump; the 0.3 µL injection shows it as a single peak, so the humps are KPV and its area is taken from that injection in the same way. The vial also contains a sugar alcohol such as mannitol (a common vial filler), seen by mass at the start of the run; it is not a peptide and is not counted.

Composition — Share of the declared-peptide UV area at 214 nm: GHK-Cu 74.00 %, KPV 8.80 %, BPC-157 + TB-500 together 17.20 %. These are shares of UV signal, not of weight: the peptides absorb UV differently, so the split by weight cannot be read from them. BPC-157 and TB-500 come off together, so their individual shares cannot be measured by UV.

Zoomed views

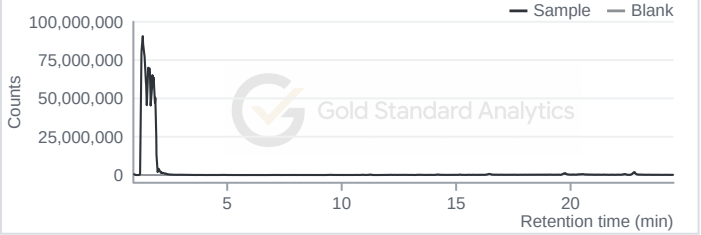
HPLC, SMALL PEAKS

Zoomed in on the small peaks (5 % of the main peak) · mAU, 214 nm against Retention time (min)



ION TRACE

Ion trace, m/z 341.2 (GHK-Cu [M+H]+): sample vs blank · Counts against Retention time (min)



Impurities

Every peak other than the declared peptides that was counted:

PEAK (MIN)	AMOUNT	WHAT IT IS
9.34	0.03 %	A small peak counted as a possible form of GHK-Cu (one of its ions is 17 lighter than GHK's); its structure is unknown.
10.80	0.03 %	TB-500 with one extra oxygen atom (mass about 4,979 instead of 4,963). This fits oxidation, a common change during storage.
11.93	0.08 %	BPC-157 that has lost one water molecule (mass about 1,401 instead of 1,419). A common by-product of peptide synthesis or storage.

> Amounts are each peak's share of the total UV peak area at 214 nm.

How it was tested

Liquid chromatography with UV and mass-spectrometry detection: Agilent 1290 Infinity II LC with a 6490 triple-quadrupole mass spectrometer. Column Polaris C18-A, 2.0 x 150 mm, 45 °C; water and acetonitrile, each with 0.1 % formic acid. Purity: UV peak area at 214 nm, after subtracting a blank run in the same sequence. Identity: molecular mass from the mass spectrum. 0.3 µL and 6 µL injected; autosampler at 12 °C.

Notes

Results apply only to the sample as received and tested.

Release

This report is signed electronically at release. The signature is printed on page 1, and the release record, added as the last page, gives the date and the verification code.

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Release record

Report GSA-COA-000129-12903-20261125 · Certificate GSA-2026-011040

Customer and order	Luke Pritchett · GSA-2026-000129
Sample and report	129-03 · KLOW blend (GHK-Cu, KPV, BPC-157, TB-500) Certificate of Analysis
Report reference	GSA-COA-000129-12903-20261125
Certificate accession	GSA-2026-011040
Released and signed by	Ian Ebert, Laboratory Director
Date and time (UTC)	2026-11-25 21:30:50Z
Signature meaning	Approved for release. The signer reviewed this report and approved its release to its customer.
Approval reference	6fb04bcc-ba80-406f-bba7-d05572b70d2f
Electronic signature	Signed electronically in a signed-in GSA staff account.
Original report SHA-256	10fce7395db38267bd028c26eddff64f5ea0012df1c5850c73c0e624b1de9608
Verify this certificate	https://goldstandardanalytics.com/coa/GSA-2026-011040

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Signature

Ian Ebert, Laboratory Director

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