



Understanding the GHK-Cu Certificate of Analysis

When reviewing our GHK-Cu test results, you will see that the identity is "✓ **Confirmed**", but there is a large mass error note. Please do not be alarmed; this is simply due to how the laboratory software calculates weight.

- **Exceptional Purity:** The HPLC analysis confirms this batch is highly pure at 99.1%.
- **The Automated Error:** The laboratory testing software was programmed to look for the base "GHK" peptide, which has a weight of 341.4 Da. It did not automatically account for the added weight of the Copper ("Cu") atom attached to it.
- **The Real Weight:** Because Copper is a heavy element, the actual detected weight of the completed GHK-Cu molecule was naturally higher, at 401.1 Da. This difference triggered an automated software warning.
- **Why it is Confirmed:** The human analytical chemist reviewing the results recognised that this extra weight was exactly the weight of the attached Copper atom. They manually approved the test, marking the final verification as "✓ **Confirmed**", proving the compound is exactly what it should be

Link to the **independent third party Verification COA** (as shown below)

<https://peptideverify.co.uk/verify/PV-F21A6E-SZKC-1C>

COA also shown further down this document below:



PeptideVerify | Certificate of Analysis

INDEPENDENT THIRD-PARTY PEPTIDE VERIFICATION

PREMIUM

Report PV-F21A6E-SZKC-1C

CERTIFICATE ID PV-F21A6E-SZKC-1C	ISSUE DATE 09/03/2026	BATCH/LOT LOT-2026-JGHK	CUSTOMER Amino Peptides Ltd
SAMPLE DESCRIPTION GHK-Cu	EXPECTED MW 341.4 Da	ANALYSIS DATE 05/03/2026 14:43	INSTRUMENT LCMS Line 1

VERIFICATION SUMMARY

Purity (HPLC)

99.1%

Calculated purity

Mass Match

Expected MW:	341.4 Da
Detected MW:	401.1 Da
Error:	+174834 ppm

MW calculated from m/z 402.1 [M+1H]⁺

ANALYTICAL RESULTS

VERIFIED PURITY

99.1%

HPLC Analysis

PEAK PURITY (PPI)

99.1%

Spectral homogeneity of main peak

MAIN PEAK AREA

99.1%

Main peak vs total integrated area

MAIN PEAK

#2 @ 5.504 min

TOTAL PEAKS

2

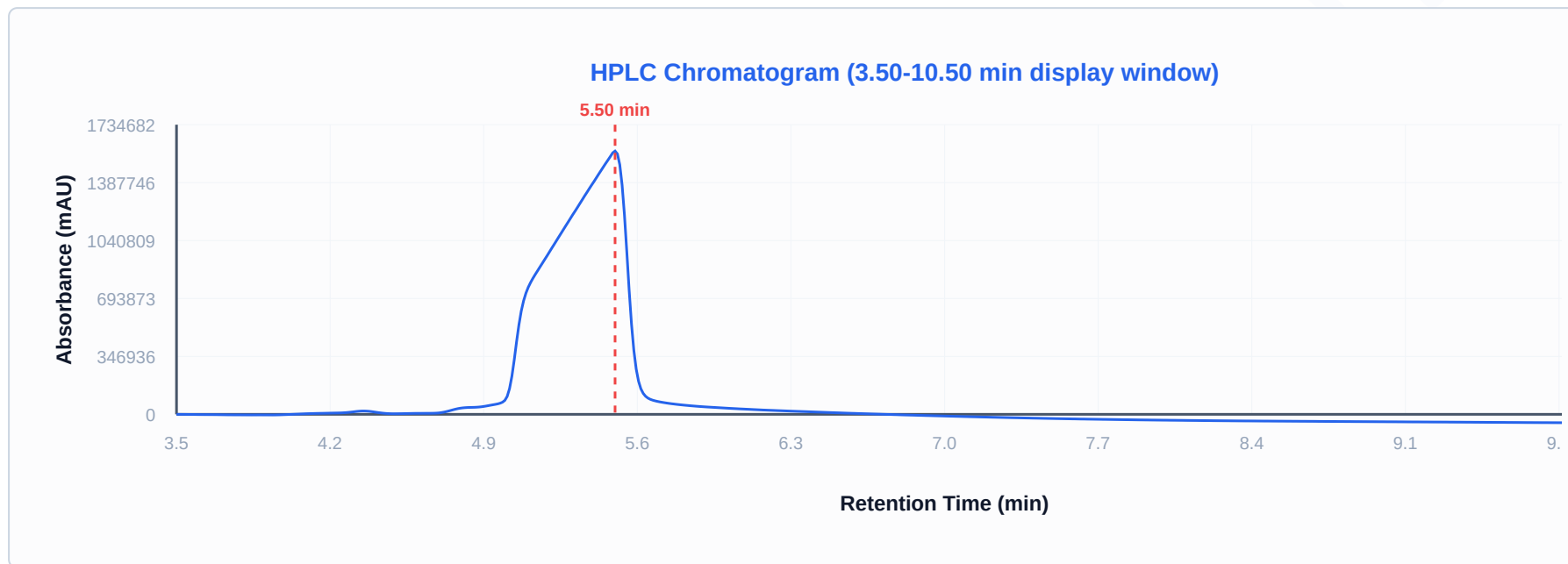
MS VERIFICATION

✓ Confirmed

DETECTION

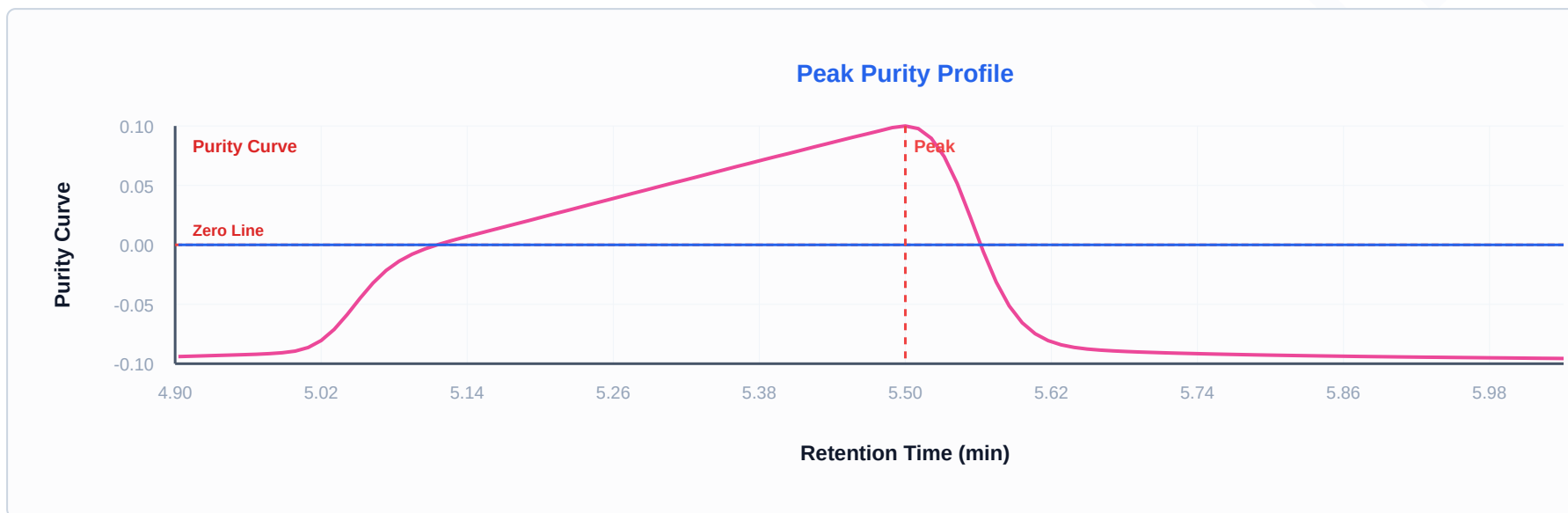
215 nm (± 4)

HPLC CHROMATOGRAM



Detection: 215 nm (± 4 nm)

PEAK PURITY PROFILE



PEAK INTEGRATION DATA

PEAK #	RETENTION (MIN)	AREA	HEIGHT	AREA %	WIDTH (MIN)	RESOLUTION (RS)	TAILING	PLATES (N)
1	5.003	1,554,455	N/A	3.61%	—	—	—	—
2	5.504	41,470,561	N/A	99.08%	—	—	—	633

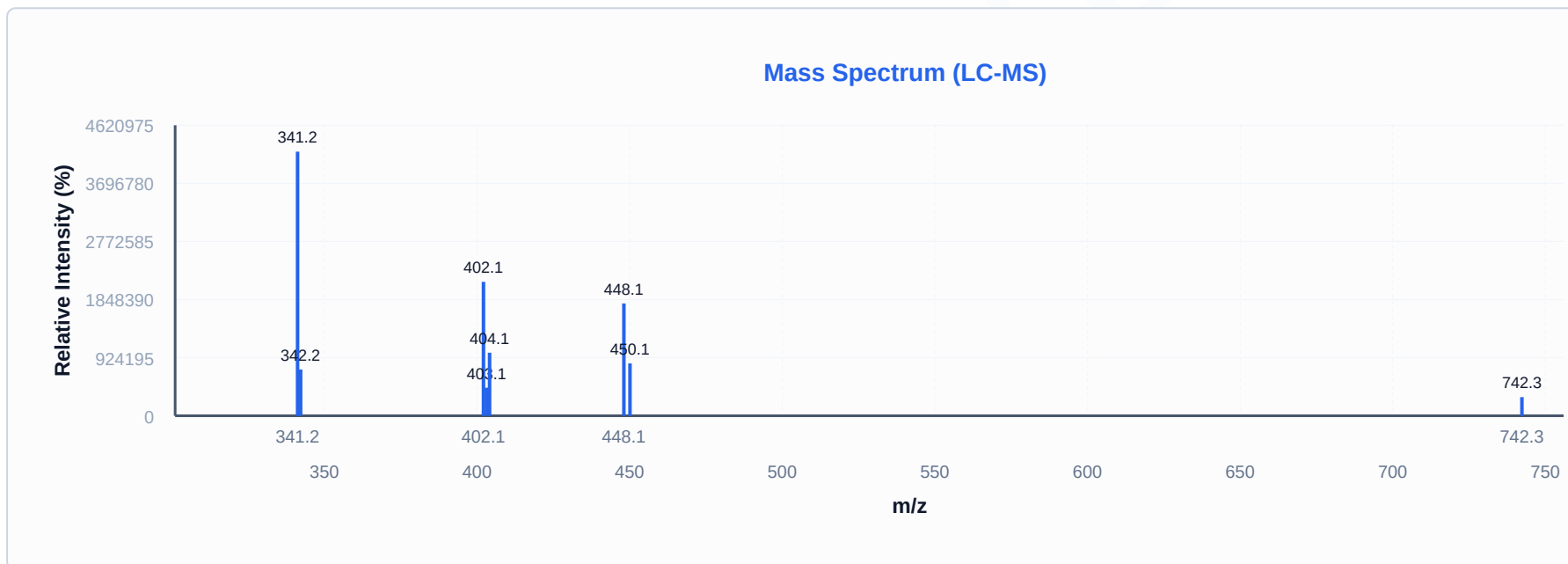
Resolution color-coded: Green ($Rs \geq 2.0$ or N/A for single peak), Yellow ($Rs \geq 1.0$), Red ($Rs < 1.0$). Values calculated from instrument data or derived from peak widths (USP <621>).

MASS SPECTROMETRY ANALYSIS (ESI+)

EXPECTED MW 341.4 Da	DETECTED MW 401.1 Da	MASS MATCH +174834 ppm	BASE PEAK m/z 341.20
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Predicted charge states:

- z=2+ → m/z 171.71
- z=3+ → m/z 114.81
- z=4+ → m/z 86.36
- z=5+ → m/z 69.29
- z=6+ → m/z 57.91



DETECTED M/Z	ASSIGNMENT	INTENSITY	RELATIVE %
341.20	—	4,200,886	100.0%
402.10	—	2,129,919	50.7%
448.10	—	1,786,653	42.5%
404.10	—	1,002,978	23.9%

DETECTED M/Z	ASSIGNMENT	INTENSITY	RELATIVE %
450.10	—	833,180	19.8%
342.20	[M+H] ⁺	735,650	17.5%
403.10	—	446,415	10.6%
742.30	—	296,322	7.1%

QUALITY CONTROL NOTES

Mass error +174834 ppm exceeds typical tolerance. Review recommended.

METHOD INFORMATION

Instrument	LCMS Line 1
Software	LabSolutions 5.97
Analyst	System Administrator
Method	HPLC-MS
Detection	215 nm (±4 nm)
MS Ionization	Electrospray (ESI+)

ANALYST NOTES

Lab Observations: Form: Lyophilized powder Color: Other Condition: As expected - no issues

Purity Calculation Method: Purity is calculated in accordance with laboratory practice. Where a single chromatographic peak is present, purity is derived from the Peak Purity Index (PPI) — a measure of spectral homogeneity. Where multiple peaks are detected, purity is calculated as the chromatographic area percentage of the main peak multiplied by its Peak Purity Index (Area% × PPI).



 **CERTIFICATE VERIFICATION**

INDEPENDENTLY VERIFIED

peptideverify.co.uk/verify/PV-F21A6E-SZKC-1C

Scan QR code or visit the URL above to verify this certificate's authenticity and view detailed analysis data.

IMPORTANT NOTE

Sample Composition reflects UV-detectable compounds only. Non-UV excipients (mannitol, sugars, salts) are not measured by this method.

PeptideVerify — Independent Third-Party Peptide Verification

Analysis performed under controlled laboratory conditions by GLP-compliant analytical facilities.

Certificate ID: PV-F21A6E-SZKC-1C | Batch/Lot: LOT-2026-JGHK | Customer: Amino Peptides Ltd | Generated: 09 Mar 2026, 22:46