Round 1 of 2: this report has 7 problems. Circle each one. Your vial says lot **BPC-2611-01**. PRACTICE

AMPLE
ANALYTICAL LABORATORY
Independent peptide testing

123 Sample Way, Suite 100
Anytown, USA 00000
www.example.com · info@example.com
(555) 010-0199

SAMPLE

Certificate of Analysis

Client	Example Customer
Accession #	2611-0457
Search code	EXC-2611-0457
Received	11/03/2026
Tested	10/28/2026
Lot	BPC-2609-07
Condition	Intact, ambient
Revision	0 (original issue)

SAMPLE SUMMARY



Sample as received

Product	BPC-157 GEPPPGKPADDAGLV	**Label claim**	10 mg per vial (gross weight)
Identity (LC-MS)	**Confirmed** (both vials)	**Purity (HPLC)**	**99.9%**
Peptide per vial	**9.50 mg · 9.57 mg** Vial 1 · Vial 2 (95.0% w/w)	**Appearance**	White lyophilized powder
Endotoxin (LAL)	< 0.5 ppm	**Final disposition**	PASS

ANALYTICAL RESULTS

Methods: reversed-phase HPLC with UV detection; identity by electrospray mass spectrometry (LC-MS); water by Karl Fischer; residual solvents by headspace GC; endotoxin by LAL. References: USP <85> (bacterial endotoxins), USP <921> (water determination), ICH Q3C (residual solvents).

Test	Method	Method ID	Specification	Result	Disposition
Appearance	Visual	QC-VIS-001	White to off-white lyophilized powder	**Conforms**	Pass
Identity	ESI-MS	QC-MS-007	1418.70 ± 0.50 Da (monoisotopic)	**1419.56 Da**	Pass
Purity	—	—	—	**99.9%**	Pass
Net peptide content	Amino acid analysis	QC-AAA-003	Report	**95.0% w/w**	—
Water	Karl Fischer	QC-KF-002	≤ 8.0% w/w	**5.2% w/w**	Pass
Counter-ion (TFA)	Ion chromatography	QC-IC-005	Report	**11.8% w/w**	—
Residual acetonitrile	Headspace GC	QC-GC-009	≤ 410 ppm	**120 ppm**	Pass
Bacterial endotoxin	LAL, kinetic chromogenic	QC-LAL-004	Report	**< 0.5 ppm**	—

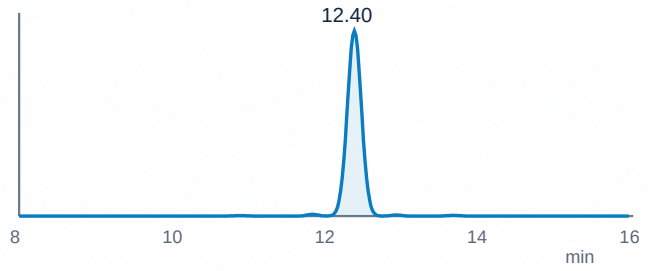
Notes: ND = not detected (< LOD) · < LOQ = below limit of quantitation · 1% = 10 mg/g = 10,000 ppm

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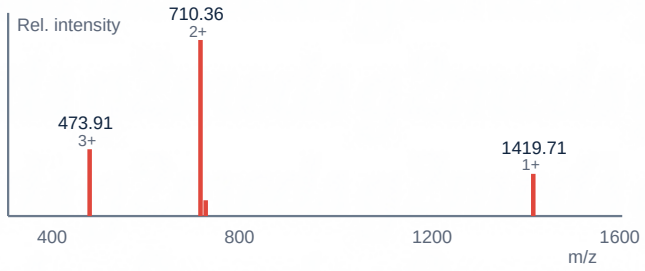
RAW DATA

Figure 1. HPLC chromatogram



Peak	RT (min)	Area %
1	10.90	0.02
2	11.85	0.06
3	**12.40**	**99.90**
4	12.95	0.01
5	13.70	0.01

Figure 2. ESI-MS spectrum (positive mode)



Ion	m/z	Charge
$[M+3H]^{3+}$	473.91	3+
$[M+2H]^{2+}$	**710.36**	**2+**
$[M+H]^{+}$	1419.71	1+

Performed by/Date: —

Checked by/Date: —

Notes: This certificate of analysis reflects only the sample indicated on this form, as received by the laboratory in good condition. This report may not be reproduced except in full. For research use only.

Accreditation shown on the original report
ISO/IEC 17025 accredited testing laboratory

Verify this report
www.example.com/verify
Search code EXC-2611-0457

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Round 2 of 2: this report has 8 problems. Circle each one. Your vial says lot **BPC-2611-01**. PRACTICE

AMPLE
ANALYTICAL LABORATORY
Independent peptide testing
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SAMPLE

Certificate of Analysis

Client	Example Customer
Accession #	2611-0457
Search code	—
Received	11/03/2026
Tested	11/04/2026
Lot	BPC-2611-01
Condition	Intact, ambient
Revision	0 (original issue)

SAMPLE SUMMARY



Sample as received

Product	BPC-157 GEPPPGKPAEDAGLV	**Label claim**	10 mg per vial (gross weight)
Identity (LC-MS)	**Confirmed** (both vials)	**Purity (HPLC)**	**99.2%** ± 0.3%
Peptide per vial	**8.56 mg** · **8.63 mg** Vial 1 · Vial 2 (85.6% w/w)	**Appearance**	White lyophilized powder
Endotoxin (LAL)	< 0.5 EU/mg	**Final disposition**	PASS

ANALYTICAL RESULTS

Methods: reversed-phase HPLC with UV detection; identity by electrospray mass spectrometry (LC-MS); water by Karl Fischer; residual solvents by headspace GC; endotoxin by LAL. References: USP <85> (bacterial endotoxins), USP <921> (water determination), ICH Q3C (residual solvents).

Test	Method	Method ID	Specification	Result	Disposition
Appearance	Visual	QC-VIS-001	White to off-white lyophilized powder	**Conforms**	Pass
Identity	ESI-MS	QC-MS-007	1418.70 ± 0.50 Da (monoisotopic)	**710.36 Da**	Pass
Purity	RP-HPLC, UV 280 nm	QC-HPLC-014	≥ 98.0% (area)	**99.2%**	Pass
Net peptide content	Amino acid analysis	QC-AAA-003	Report	**85.6% w/w**	—
Water	Karl Fischer	QC-KF-002	≤ 8.0% w/w	**0.0% w/w**	Pass
Counter-ion (TFA)	Ion chromatography	QC-IC-005	Report	**11.8% w/w**	—
Residual acetonitrile	Headspace GC	QC-GC-009	≤ 5,000 ppm	**3,900 ppm**	Pass
Bacterial endotoxin	LAL, kinetic chromogenic	QC-LAL-004	Report	**< 0.5 EU/mg**	—

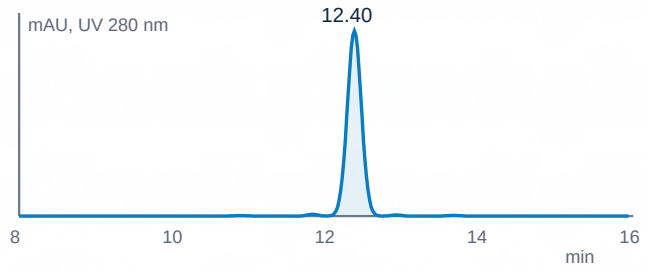
Notes: ND = not detected (< LOD) · < LOQ = below limit of quantitation · 1% = 10 mg/g = 10,000 ppm

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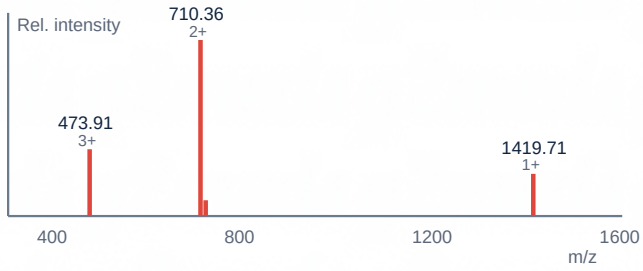
RAW DATA

Figure 1. HPLC chromatogram (UV 280 nm)



Peak	RT (min)	Area %
1	10.90	0.17
2	11.85	0.46
3	**12.40**	**99.20**
4	12.95	0.11
5	13.70	0.06

Figure 2. ESI-MS spectrum (positive mode)



Ion	m/z	Charge
$[M+3H]^{3+}$	473.91	3+
$[M+2H]^{2+}$	**710.36**	**2+**
$[M+H]^{+}$	1419.71	1+

Performed by/Date: *Alex Analyst*

Digitally signed by Alex Analyst
Date: 2026.11.04 16:42:10 -05'00'

Checked by/Date: *Quinn Reviewer*

Digitally signed by Quinn Reviewer
Date: 2026.11.05 09:18:52 -05'00'

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Answer key

The 15 red flags hidden in the two practice reports, and why each one matters.

g2meds

Play it online

Round 1: 7 red flags

1 Lot number

Mismatch. Your vial says lot BPC-2611-01, but this report covers BPC-2609-07. Every result on the page describes a different lot.

2 Dates

Impossible order. The sample was “tested” six days before the lab received it, which points to an edited or recycled report.

3 Identity (mass spec)

1419.56 Da is BPC-157’s average mass, but the specification is monoisotopic. The 0.86 Da gap is outside the ± 0.50 Da limit, yet the row says Pass. Either the mass types were mixed up or nobody checked the result.

4 Purity (HPLC)

No method, no wavelength and no specification, just a round 99.9%. Without the method you cannot tell what was measured. Identical round figures across many products are a classic sign of an invented number.

5 Net peptide content

The weight percentages no longer add up: 95.0% peptide + 5.2% water + 11.8% TFA = 112%. A powder cannot be more than 100% of itself, so at least one number is wrong or comes from another lot.

6 Endotoxin

Wrong unit. Endotoxin is measured in endotoxin units (EU), not ppm. A unit that does not fit the test suggests the report was assembled by someone who does not run it.

7 Sign-off

No analyst, no reviewer and no dates. Nobody is accountable for these results, and there is no evidence the data was ever checked.

Round 2: 8 red flags

8 Report file

A screenshot, not the lab’s original file. Converting a PDF to an image is usually how reports get edited, most often to swap in a different company name. Images carry no digital signature, so ask for the original PDF and confirm the results with the lab directly.

9 Laboratory

Slogans instead of details. There is no address, phone number or accreditation, so you cannot contact the lab or check its credentials. “Certified” means nothing without saying who certified what.

10 Product

Wrong sequence. BPC-157 is GEPPPGKPADDAGLV, but position 10 here reads E (glutamic acid) instead of D (aspartic acid). Either the identity check used the wrong structure or the report was copied from another document.

11 Identity (mass spec)

710.36 is the m/z of the doubly charged $[M+2H]^{2+}$ ion, not a mass in daltons. Writing it as the molecular mass, and passing it against a 1418.70 Da specification, shows the spectrum was misread.

12 Purity (HPLC)

Wrong wavelength. BPC-157 contains no tryptophan or tyrosine, so it barely absorbs at 280 nm, and neither do most of its impurities. Peptide purity should be measured at 214 to 220 nm, where the peptide bond absorbs.

13 Water

Lyophilized peptides are hygroscopic and always hold some water. A Karl Fischer result of exactly 0.0% is very unlikely and suggests the number was typed in rather than measured.

14 Residual solvent

Moved goalposts. The ICH Q3C limit for acetonitrile is 410 ppm, but this specification was loosened to 5,000 ppm so a high result of 3,900 ppm could pass.

15 Document control

Missing pages. The report says it has three pages, but only two are here. Missing pages often hold the chromatogram, the spectra or tests that failed. Ask for the complete report.

Play the interactive version: g2meds.com/spot-the-fake-coa **See the correct report:** g2meds.com/peptide-coa-results-and-units-explained

Explain your own COA: g2meds.com/peptide-coa-explainer

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