Gold Standard Analytics

Gold Standard Analytics LLC, Houston, TX

CERTIFICATE OF ANALYSIS

Report GSA-COA-CUST-LA-PT141-20261103-5 · issued Nov 18, 2026

LA Peptides

PRODUCT
PT-141 (bremelanotide) nasal spray

ORDER
Custom sample

SAMPLE
LA-PT141-20261103

ISSUED
Nov 18, 2026



THE SAMPLE AS RECEIVED

IDENTITY ✓

PT-141

confirmed by mass

PURITY ✓

98.7 %

HPLC-UV, 214 nm

ENDOTOXINS ✓

< 0.050 EU/mL

Pass; spike recovery 102 %

STERILITY ✓

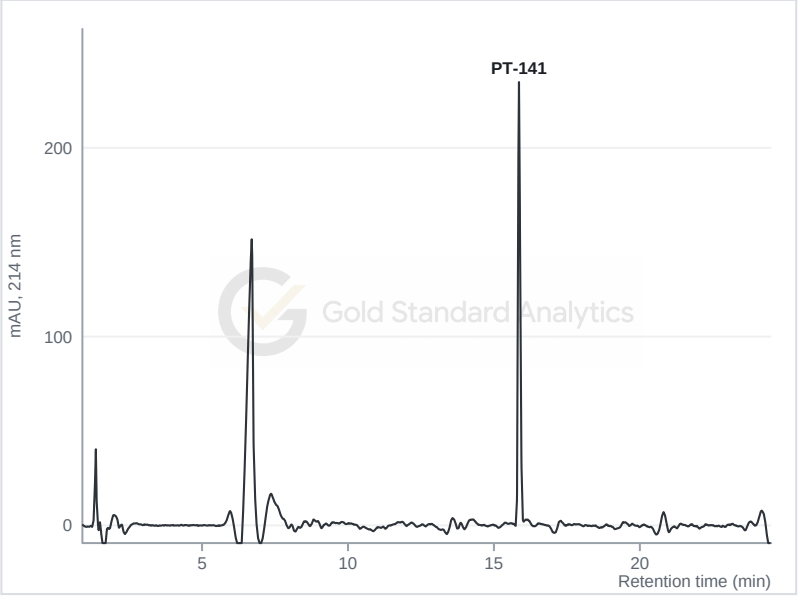
No growth

Pass; both canisters, 14 days

✓ **Heavy metals** USP <232>, ICP-MS: Pb, Cd, Hg, As, Co, V, Ni — **Pass**

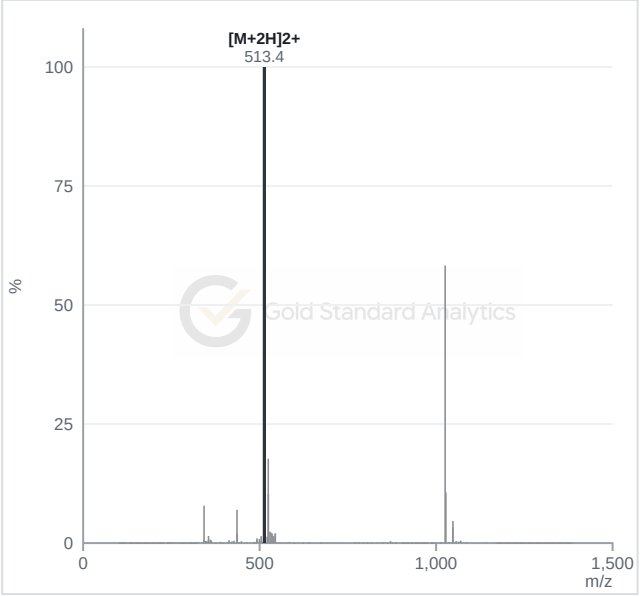
HPLC CHROMATOGRAM

UV, 214 nm



MASS SPECTRUM

main peak (15.86 min)



RELEASED BY

Ian Ebert
Laboratory Director · Nov 19, 2026

Scan to verify
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The sample

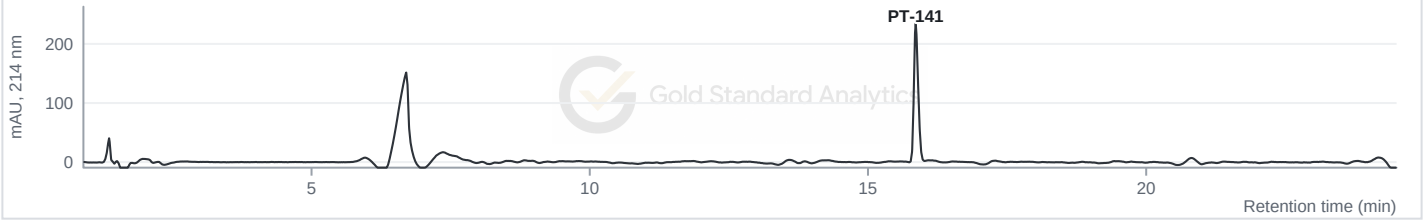
Custom sample · LA Peptides

Customer	**LA Peptides**
Order	**Custom sample**
Sample	**LA-PT141-20261103**
Label	**PT-141 nasal spray, 10 mg per bottle**
Prepared	**Spray diluted 1 in 7 with water containing 0.1 % formic acid, 3 Nov 2026**
Tested	**03 Nov 2026**
Tests	**Identity, Purity, Impurity breakdown, Bacterial endotoxins, Sterility, Elemental impurities**

Graphs

HPLC CHROMATOGRAM

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



MASS SPECTRUM

Mass spectrum of the main peak (15.86 min) · Counts against m/z



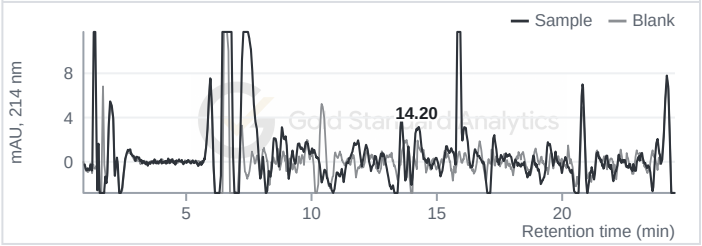
Results

Identity	**Consistent with PT-141 (bremelanotide).** The main peak at 15.86 min carries its doubly charged ion (m/z 513.4; molecular mass 1,024.8, expected 1,025.2).
Purity	**98.7 %** by HPLC with UV detection at 214 nm (share of the peptide-related UV peak area). 1 form of PT-141 identified by mass is listed below. The large peak at about 6.5 to 7.5 min comes from the instrument, not the sample: the same peak appears when only blank solvent is run. The early peak at about 1.4 min is salt from the spray liquid (its mass spectrum shows sodium formate clusters and no peptide). Neither is counted.
Bacterial endotoxins	**< 0.050 EU/mL; spike recovery 102%** . Pass.
Sterility	**No growth in either canister after 14 days** . Pass.
Elemental impurities (USP <232>)	**Pb < 0.5 µg/g; Cd < 0.2 µg/g; Hg < 0.3 µg/g; As < 0.2 µg/g; Co < 0.3 µg/g; V < 0.1 µg/g; Ni < 0.5 µg/g (Agilent ICP-MS)** . Pass.

Zoomed views

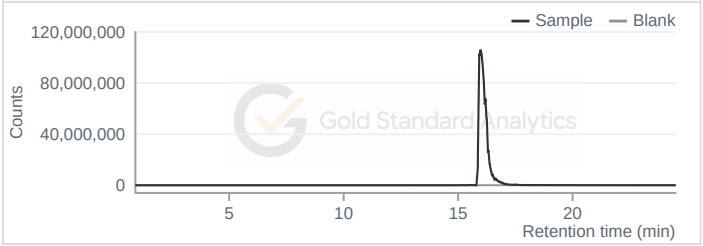
HPLC, SMALL PEAKS

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



ION TRACE

Ion trace, m/z 513.6 ([M+2H]2+): sample vs blank · Counts against Retention time (min)



Impurities

Every peak counted besides the main peptide:

PEAK (MIN)	AMOUNT	WHAT IT IS
14.20	1.3 %	Oxidised PT-141: forms with one and with two extra oxygen atoms (masses about 1,041 and 1,057 instead of 1,025). Oxidation is a common change during storage.

> Amounts are each peak's share of the peptide-related 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 blank runs of the same sequence. Identity: molecular mass from the mass spectrum. Bacterial endotoxins: endotoxin reader, 0.050 EU/mL limit; result reported as printed by the reader, with spike recovery. Sterility: membrane filtration (canisters), 14-day incubation. Elemental impurities (USP <232>): Agilent ICP-MS; Pb, Cd, Hg, As, Co, V, Ni.

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.

Customer and order	LA Peptides · Custom sample (no order)
Sample and report	LA-PT141-20261103 · PT-141 (bremelanotide) nasal spray Certificate of Analysis
Report reference	GSA-COA-CUST-LA-PT141-20261103-5
Certificate accession	GSA-2026-826424
Released and signed by	Ian Ebert, Laboratory Director
Date and time (UTC)	2026-11-19 20:37:22Z
Signature meaning	Approved for release. The signer reviewed this report and approved its release to its customer.
Approval reference	bef71049-8c58-4edc-a751-35ac41d2d9c1
Electronic signature	Signed electronically in a signed-in GSA staff account.
Original report SHA-256	1d63ab85cd7d7492e8c502c00b16c2314274336cf6b27e0a61472345c366c3bd
Verify this certificate	https://goldstandardanalytics.com/coa/GSA-2026-826424

Scan to view this certificate online

Signature

Ian Ebert, Laboratory Director

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