Gold Standard Analytics

Gold Standard Analytics LLC, Houston, TX

CERTIFICATE OF ANALYSIS

Report GSA-COA-000134-13401-20261125 · issued Nov 25, 2026

Jason Leslie Bradshaw

PRODUCT
SS-31 (Elamipretide)

ORDER
GSA-2026-000134

SAMPLE
134-01

ISSUED
Nov 25, 2026



THE SAMPLE AS RECEIVED

IDENTITY

SS-31

confirmed by mass

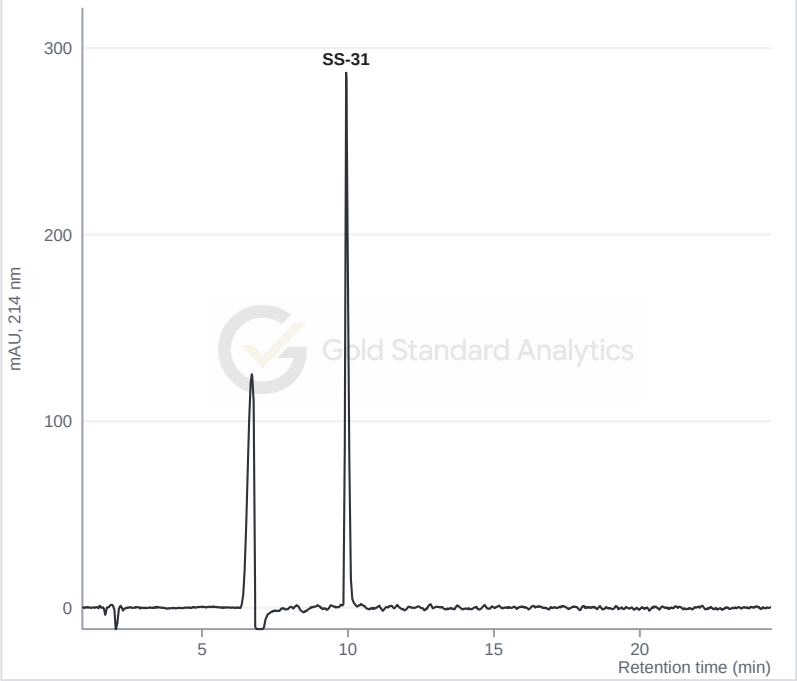
PURITY

98.23 %

HPLC-UV, 214 nm

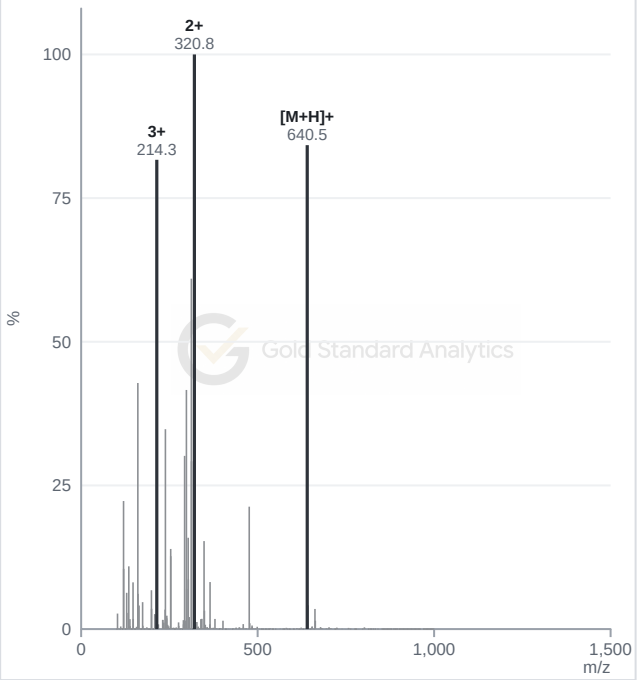
HPLC CHROMATOGRAM

UV, 214 nm



MASS SPECTRUM

main peak (9.94 min)



RELEASED BY

Ian Ebert
Laboratory Director · Nov 25, 2026

Scan to verify
goldstandardanalytics.com/coa/

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

The sample

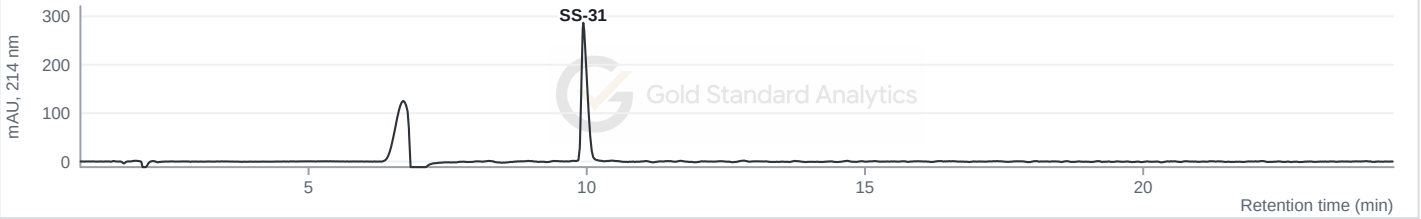
Order GSA-2026-000134 · Sample 134-01 · Jason Leslie Bradshaw

Customer	**Jason Leslie Bradshaw**	Prepared	**24 Nov 2026**
Order	**GSA-2026-000134**	Tested	**25 Nov 2026**
Sample	**134-01**	Tests	**Identity, Purity**
Label	**Blue Zone Pet Peptides, SS-31 10 mg**		

Graphs

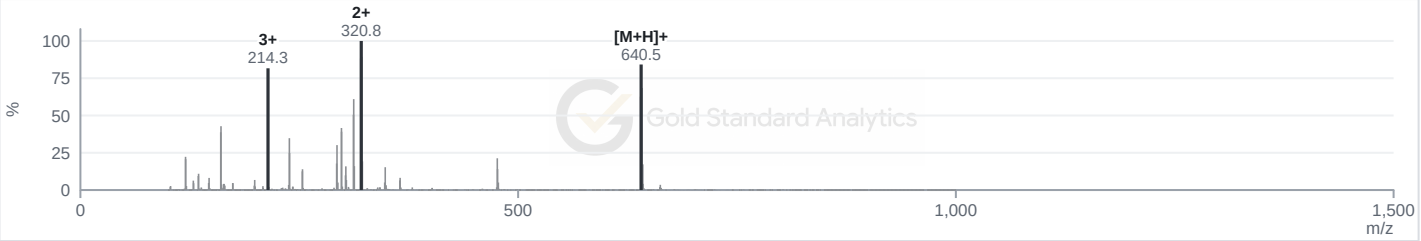
HPLC CHROMATOGRAM

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



MASS SPECTRUM

Mass spectrum of the main peak (9.94 min) · Counts against m/z



Results

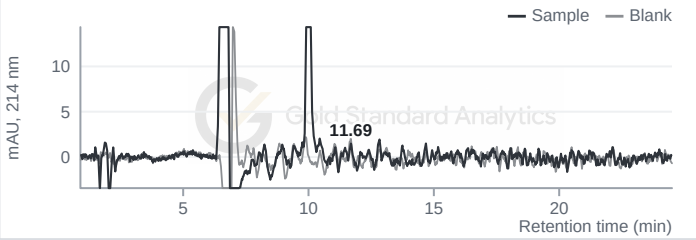
Identity **Consistent with SS-31.** The main peak is SS-31 at 9.94 min (m/z 640.5 and m/z 320.8; measured mass 639.7, expected 639.8).

Purity **98.23 %** by HPLC with UV detection at 214 nm (share of the total peak area). 2 impurities were found and are listed below: forms of the peptide identified by mass, which are counted at any size. Other peaks count above about 1.46 % of the SS-31 peak height. 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 in purity. The small peaks at about 1.7 to 2.0 min appear in every injection on this instrument, blank solvent included, and are not counted. The large peak at about 6.7 min comes from the instrument, not the sample: the same peak appears when only blank solvent is injected.

Zoomed views

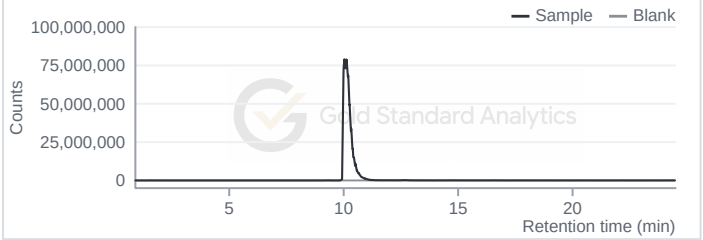
HPLC, SMALL PEAKS

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



ION TRACE

Ion trace, m/z 640.4 (SS-31 [M+H]+): sample vs blank · Counts against Retention time (min)



Impurities

Every peak other than the declared peptide that was counted:

PEAK (MIN)	AMOUNT	WHAT IT IS
11.69	0.96 %	SS-31 with an added group of mass 42 (mass about 682 instead of 640); this fits an extra acetyl group, a known by-product of peptide synthesis.
12.40	0.80 %	SS-31 with a mass 2 lower than expected (about 638 instead of 640); its exact structure is unknown.

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. 0.5 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.

Gold Standard Analytics

goldstandardanalytics.com

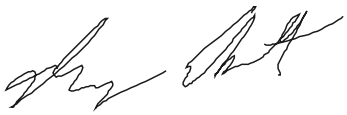
Release record

Report GSA-COA-000134-13401-20261125 · Certificate GSA-2026-830732

Customer and order	Jason Leslie Bradshaw · GSA-2026-000134
Sample and report	134-01 · SS-31 (Elamipretide) Certificate of Analysis
Report reference	GSA-COA-000134-13401-20261125
Certificate accession	GSA-2026-830732
Released and signed by	Ian Ebert, Laboratory Director
Date and time (UTC)	2026-11-25 21:30:51Z
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	add267d8fb41571e60b30cb736a0b17b129914ca496673fb401faec1f8d1b5a4
Verify this certificate	https://goldstandardanalytics.com/coa/GSA-2026-830732

Scan to view this certificate online

Signature



Ian Ebert, Laboratory Director

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