Gold Standard Analytics

Gold Standard Analytics LLC, Houston, TX

CERTIFICATE OF ANALYSIS

Report GSA-COA-000092-09203-20261117 · issued Nov 17, 2026

Vitalis Peptides

PRODUCT	ORDER	SAMPLE
Semax	GSA-2026-000092	092-03
LABEL	**LOT**	**ISSUED**
Vitalis Peptides, batch XA261016B	XA261016B	Nov 17, 2026



THE SAMPLE AS RECEIVED

IDENTITY

Semax

confirmed by mass

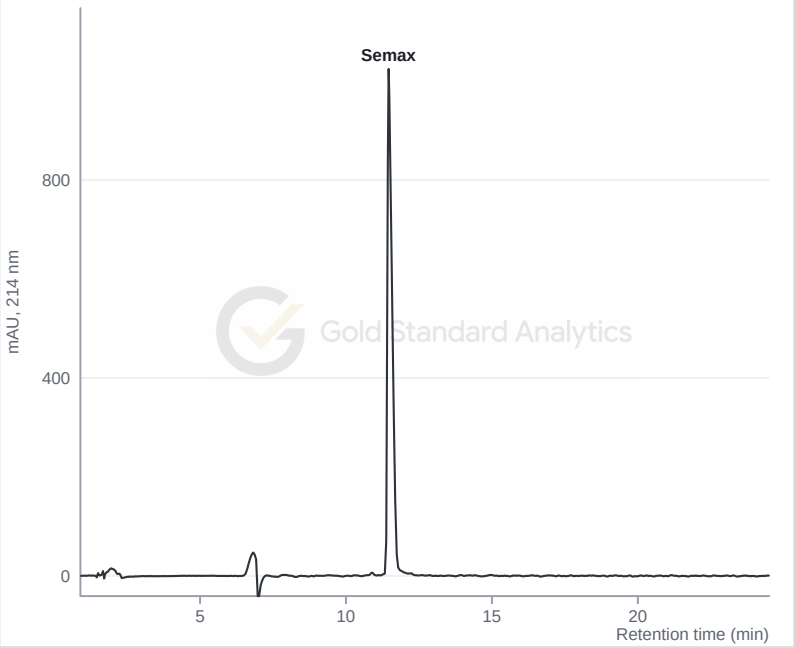
PURITY

99.4 %

HPLC-UV, 214 nm

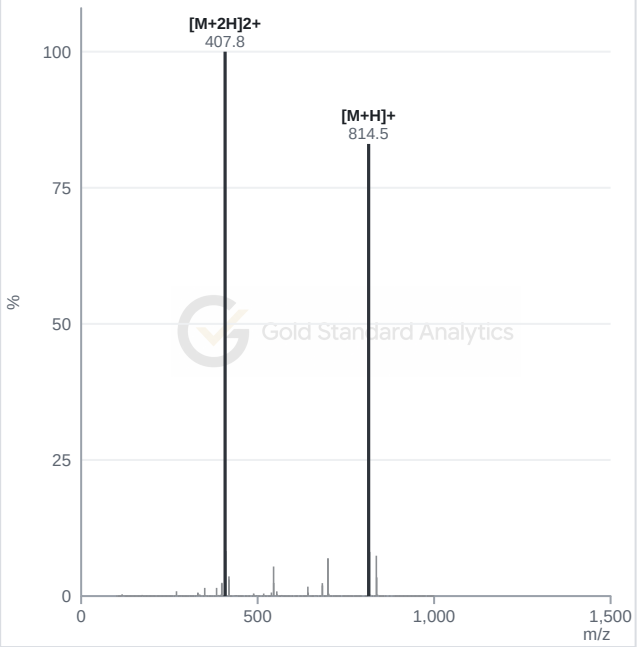
HPLC CHROMATOGRAM

UV, 214 nm



MASS SPECTRUM

main peak (11.46 min)



RELEASED BY

Ian Ebert

Laboratory Director · Nov 17, 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

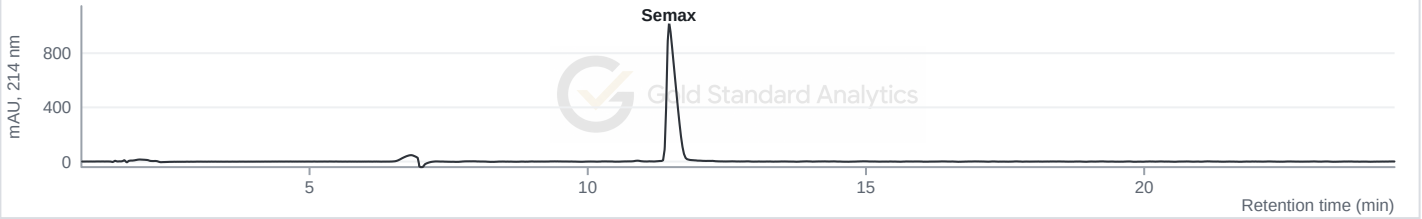
Order GSA-2026-000092 · Sample 092-03 · Vitalis Peptides

Customer	**Vitalis Peptides**	Lot	**XA261016B**
Order	**GSA-2026-000092**	Prepared	**16 Nov 2026**
Sample	**092-03**	Tested	**17 Nov 2026**
Label	**Vitalis Peptides, batch XA261016B**	Tests	**Identity, Purity**

Graphs

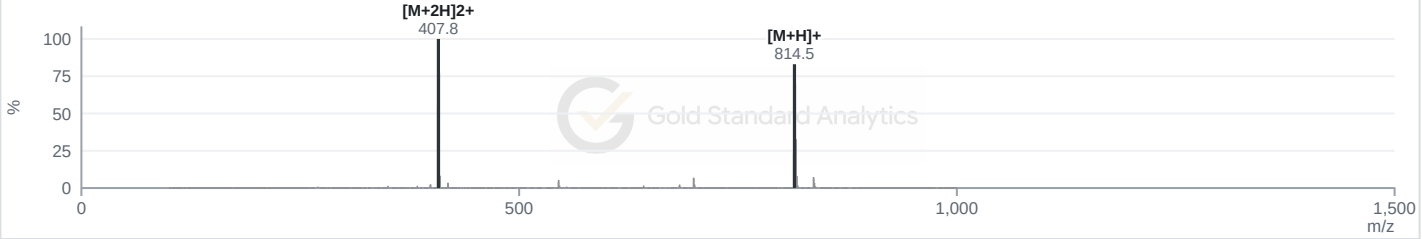
HPLC CHROMATOGRAM

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



MASS SPECTRUM

Mass spectrum of the main peak (11.46 min) · Counts against m/z



Results

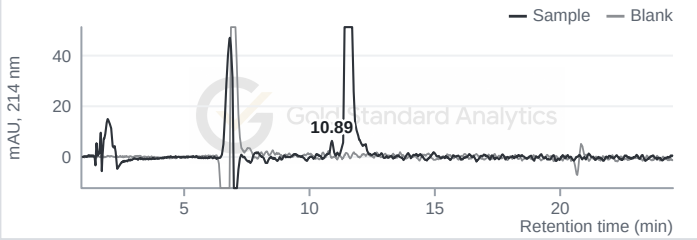
Identity **Consistent with Semax.** The main peak is Semax at 11.46 min (m/z 814.5 and m/z 407.8; measured mass 813.5, expected 813.9).

Purity **99.4 %** by HPLC with UV detection at 214 nm (share of the total peak area). 1 impurity was found and is listed below. Unexplained peaks count above about 0.8 % of the Semax peak height; forms of the peptide identified by mass count down to about 0.5 % of it. 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 6.8 min comes from the instrument, not the sample: the same peak appears when only blank solvent is injected.

Zoomed views

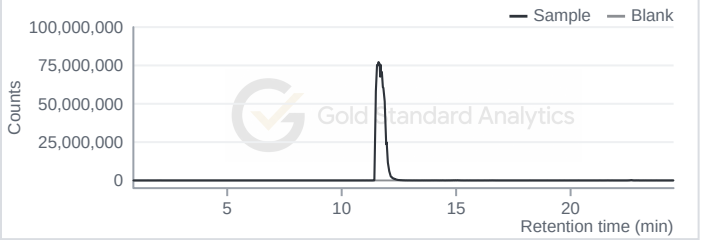
HPLC, SMALL PEAKS

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



ION TRACE

Ion trace, m/z 814.4 (Semax [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
10.89	0.57 %	Semax with one extra oxygen atom (mass about 830 instead of 814). This fits oxidation, a common change during 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. 2 µL injected; autosampler at 12 °C.

Notes

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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-000092-09203-20261117 · Certificate GSA-2026-561741

Customer and order	Vitalis Peptides · GSA-2026-000092
Sample and report	092-03 · Semax Certificate of Analysis
Report reference	GSA-COA-000092-09203-20261117
Certificate accession	GSA-2026-561741
Released and signed by	Ian Ebert, Laboratory Director
Date and time (UTC)	2026-11-17 19:36:08Z
Signature meaning	Approved for release. The signer reviewed this report and approved its release to its customer.
Approval reference	645b8ef4-9777-47a3-adb9-123f2ca06ae5
Electronic signature	Signed electronically in a signed-in GSA staff account.
Original report SHA-256	39d8e9ee7ccd24b616a307dfa483ac84e467ccbc3be2ee9b55be02ed8169d9a6
Verify this certificate	https://goldstandardanalytics.com/coa/GSA-2026-561741

Scan to view this certificate online

Signature

Ian Ebert, Laboratory Director

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