

CERTIFICATE NO.

PL-26-00095

VERIFICATION KEY

6MRFF6JD

Scan or enter both at

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CERTIFICATE OF ANALYSIS · LOT RELEASE · ISSUED FOR PURAVIUM

Semax 5 mg

Lot PL-2609-095 · Lyophilized powder · Label claim 5 mg/vial

TESTED IN-HOUSE BY PRYMALAB

In-house analytical result,
not an independent third-party test

LOT / BATCH NUMBER	DATE MADE	DATE OF ANALYSIS	DATE ISSUED
PL-2609-095	2026-09-18	2026-09-19	2026-10-03
RETEST / EXPIRY	UNITS IN LOT / SAMPLED	STORAGE	CERTIFICATE TYPE
2028-09-18	250 / 2	-20 °C, desiccated, dark	Lot COA, 2 pages

COMPOUND	CAS NUMBER	MOLECULAR FORMULA	THEORETICAL MASS (AVG.)
Semax	80714-61-0	C ₃₇ H ₅₁ N ₉ O ₁₀ S	813.9 Da
ACTH(4-7)-Pro-Gly-Pro heptapeptide (MEHFPGP)			
SEQUENCE			
H-MEHFPGP-OH (7 residues; free N- and C-termini)			

PURITY · RP-HPLC, AREA %

99.57%

Specification 99.0% • main peak at 3.38 min

IDENTITY · OBSERVED MASS

814.1 Da

Theoretical 813.9 Da • +0.2 Da (246 ppm)

OVERALL CONCLUSION

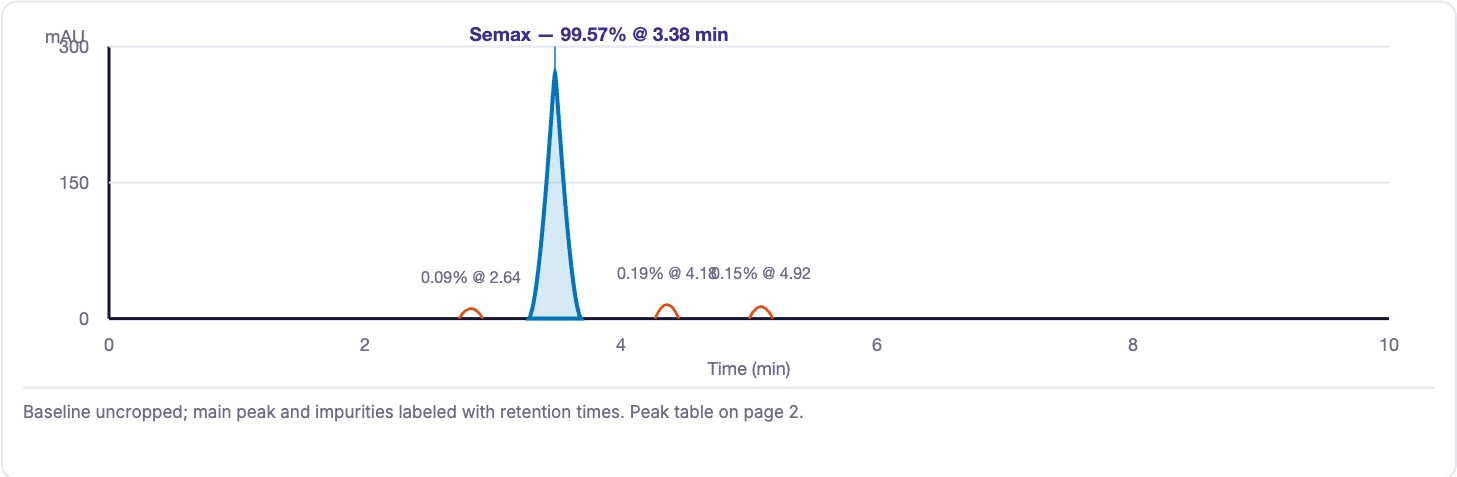
PASS

Meets every specification for the tests performed

TEST	METHOD	SPECIFICATION	RESULT	CONCLUSION
Appearance	Visual inspection	White to off-white lyophilized powder	White lyophilized powder	PASS
Identity (mass)	LC-MS, ESI positive	Theoretical ± 1.0 Da	814.1 Da	PASS
Purity	RP-HPLC, UV 214 nm, area%	99.0%	99.57%	PASS
Largest impurity	RP-HPLC, area%	1.0%	0.19% at 4.18 min	PASS
Water content	Karl Fischer	5.0%	1.7%	PASS
Bacterial endotoxin	LAL, kinetic	≤ 5.0 EU/mg	0.04 EU/mg	PASS
Sterility / bioburden	USP <71>, membrane filtration	No growth after 14 days	No growth; conforms	PASS

1 HPLC CHROMATOGRAM

Data file: SMX_PL-2609-095_20260919_01 · Column C18, 150 × 4.6 mm · UV 214 nm



2 HPLC METHOD · SMX_PL-2609-095_20260919_01

INSTRUMENT	DATA SYSTEM	DETECTOR
Waters Alliance e2695, SN E2695B742	Empower 3, Build 3471	Waters 2998 PDA
DETECTION WAVELENGTH	COLUMN	COLUMN PART / SERIAL
214 nm	C18, 150 × 4.6 mm, 3.5 µm	186003326 / USHX18211
MOBILE PHASE A	MOBILE PHASE B	FLOW RATE
0.1% TFA in water	0.1% TFA in MeCN	1.0 mL/min
COLUMN TEMPERATURE	INJECTION VOLUME	RUN TIME
30 °C	20 µL	10 min
SAMPLE DILUENT	SAMPLE CONCENTRATION	BLANK INJECTED
Water, 0.1% TFA	0.5 mg/mL	Yes
REFERENCE STANDARD		
In-house Semax reference, lot PL-RS-SMX-01, RT 3.36 min		

3 GRADIENT PROGRAM

TIME (MIN)	% A	% B
0.0	95	5
3.0	95	5
7.0	55	45
8.0	20	80
9.0	20	80
10.0	95	5

4 PEAK TABLE

PEAK	RT (MIN)	AREA	AREA %
1	2.64	3,870	0.09
2	3.38	4,281,510	99.57
3	4.18	8,170	0.19
4	4.92	6,450	0.15
Total		4,300,000	100.00

Threshold 0.05% area · Blank subtracted: Y · Purity = main peak area ÷ total integrated area × 100, to two decimals; main peak shaded.

5 IDENTITY BY MASS SPECTROMETRY

INSTRUMENT	IONIZATION / MODE	OBSERVED M/Z (CHARGE)
Waters Acquity SQD	ESI, positive	815.6 (1+ [M+H]) · 837.6 (1+ [M+Na])
DECONVOLUTED MASS	THEORETICAL MASS	DIFFERENCE
814.1 Da	813.9 Da	+0.2 Da (246 ppm)
DATA FILE	ACCEPTANCE	
SMX_PL-2609-095_MS_20260919_01	Within ± 1.0 Da	

6 ADDITIONAL TESTS

TEST	PERFORMED BY	DATE	REPORT / FILE
Water content	PrymaLab	2026-09-20	RPT-KF-PL-2609-095
Endotoxin	PrymaLab	2026-09-21	RPT-ET-PL-2609-095
Sterility	PrymaLab	2026-10-02	RPT-ST-PL-2609-095
Peptide content	PrymaLab	2026-09-20	RPT-AA-PL-2609-095

A test with no row here was not performed on this lot. Outside-laboratory reports, when used, are attached and named below.

7 REVIEW AND APPROVAL

D. Reynolds	S. Calloway	M. Phelps
Analyst · performed the testing	Reviewer · checked against raw data	Lab Director · approved for release
Date: 2026-09-19	Date: 2026-10-02	Date: 2026-10-03

Raw data retained at: Empower 3 (Build 3471), project PL-2609, archive PL-ARC-2026; 7 years. Outside laboratory reports attached: None

This certificate applies only to the lot named above and describes the units sampled from it; it is not a guarantee for any other lot. Results were obtained by PrymaLab LLC's own laboratory (PrymaLab Analytical) and are not an independent third-party test unless an outside report is attached. This copy is issued for Puravium, a distributor of the lot; the brand shown does not change the laboratory, the method or the results. Reference values (CAS, formula, theoretical mass, sequence) are literature values for the named compound. Authenticity: scan the QR code or enter certificate number PL-26-00095 and key 6MRFF6JD at prymalab.net/testing/verify; any copy that does not match the record shown there is not a PrymaLab certificate. PrymaLab LLC products are supplied for laboratory research use only and not for human or veterinary use.