

# HPLC Purity Analysis

Semax — Research Grade Verification

<b>≥99%</b>	<b>Certified</b>	<b>Agilent</b>	<b>2026</b>
HPLC PURITY	INDEPENDENT LAB	1200 HPLC	TEST YEAR

ANALYSIS REPORT — SEMAX

## Semax

ACTH 4-10 Heptapeptide Analogue

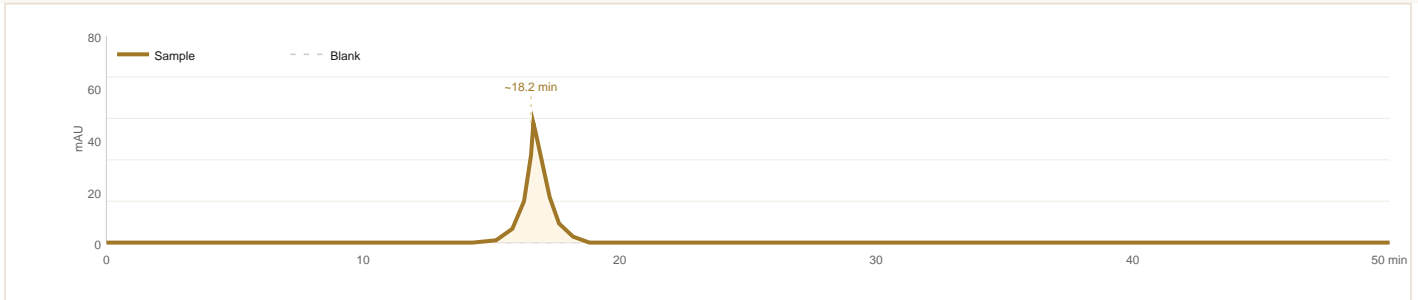
Dose: **20mg** · Batch: **S1 & S2** · Operator: **Certified Analyst** · Instrument: **Agilent 1200 HPLC**

**≥99%**

HPLC PURITY

No impurities detected

CHROMATOGRAM — SEMAX1 & SEMAX2 vs BLANK



Both semax1 and semax2 show a single dominant peak at ~18.2 min with ≥99% area purity. Background in blank confirms no solvent interference.

AREA PERCENT REPORT — PEAK DATA

Sample	Pk	Ret. Time	Type	Width	Area (mAU-s)	Ht (mAU)	Area %
S1 — semax1	1	18.2	VB	0.1823	381.9	33.6	≥99%
Totals					381.9	33.6	≥99%
S2 — semax2	1	18.2	BB	0.1841	374.5	32.9	≥99%
Totals					374.5	32.9	≥99%
Blank	—	No peaks — background only					—

INSTRUMENT & METHOD DETAILS

Instrument	Agilent 1200 HPLC	Solvent A	Water + 0.1% TFA
Detector	MWD1, 280 nm	Solvent B	ACN + 0.1% TFA
Column	C18 Reversed-Phase	Gradient	2% B/min, 5-95%
Flow Rate	0.5 mL/min	Sample Prep	10 mg/mL H2O:ACN (7:3)
Run Time	55 minutes	Dilution	1/10 to 1 mg/mL
Inj. Volume	5.0 µL	Operator	Certified Analyst

**Result: Passed — ≥99% HPLC Purity.**

✓ Both vials S1 and S2 of Semax show a single chromatographic peak with ≥99% purity by conservative HPLC area percent. Blank confirms no background interference. Vial-to-vial consistency is excellent.

TESTING METHODOLOGY

01

**Sample Prep**

Dissolved in H<sub>2</sub>O:ACN (7:3) at 10 mg/mL, vortexed, diluted 1/10 to 1 mg/mL.

02

**HPLC Analysis**

5  $\mu$ L onto C18 column. Gradient 5-95% ACN, 55 min, 0.5 mL/min. UV 280 nm. Peak ~18.2 min.

03

**Purity Calc**

$\geq$ 99% by HPLC area percent. Blank confirms background is solvent-derived only.