



# Certificate of Analysis

Semax · 5 mg / vial · Lot SEM665

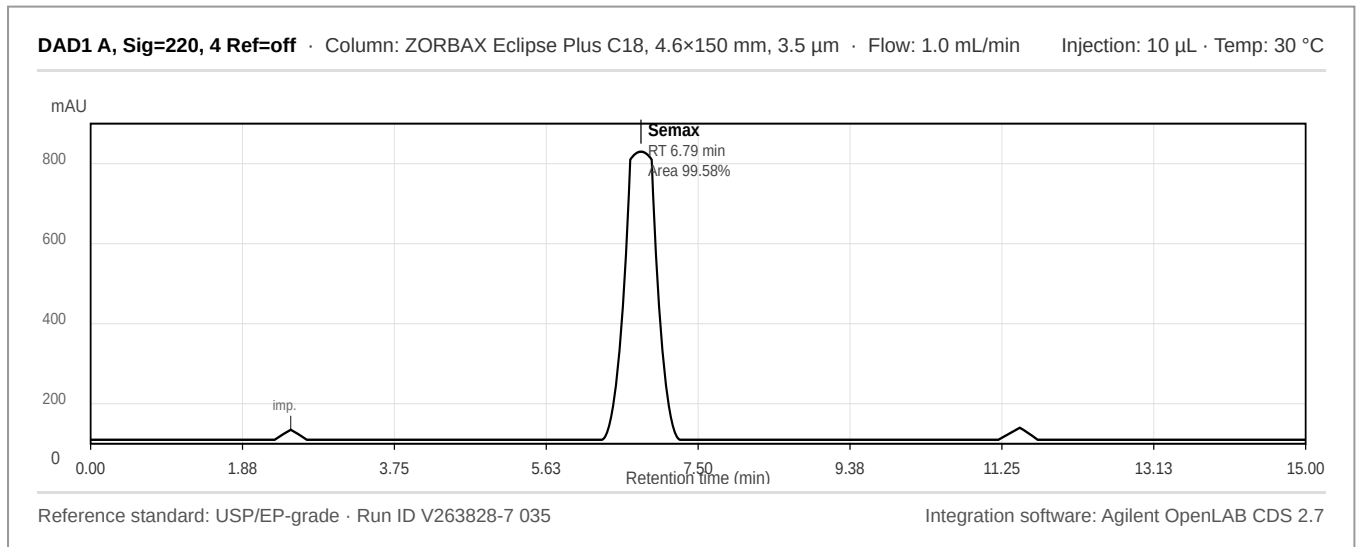
REPORT TO	IGF1 Shop · igf1shop.com
COMPOUND	Semax
CAS NUMBER	80714-61-0
SAMPLE RECEIVED	2026-04-19
DATE RELEASED	2026-04-24

LABORATORY ID	V263828-7 035
LOT NUMBER	SEM665
MOLECULAR WEIGHT	813.94 Da
ANALYSIS CONDUCTED	2026-04-21
PHYSICAL APPEARANCE	Reconstituted clear liquid

## 1. IDENTITY & PURITY

SPECIFICATION	METHOD	RESULT	STATUS
Identity confirmation	RP-HPLC + ESI-MS comparison to reference	Conforms	PASS
Chromatographic purity	HPLC-UV/VIS, C18 RP, 220 nm	99.58% ± 0.12%	PASS
Quantitative assay	HPLC-UV/VIS	5.390 mg (target 5 mg)	PASS
Mass confirmation (ESI-MS)	Electrospray ionization mass spectrometry	Within ±1 Da of theoretical	PASS

## 2. HPLC CHROMATOGRAM



### 3. MICROBIOLOGICAL & SAFETY ASSAYS

SPECIFICATION	METHOD	RESULT	STATUS
Bacterial endotoxins	LAL kinetic chromogenic	< 0.280 EU/mg	PASS
Sterility	USP <71> · BacT/ALERT	No growth detected	PASS
Water content	Karl Fischer titration	0.73%	PASS
Acetate content	Ion chromatography	2.78%	PASS

### 4. HEAVY METALS (ICP-MS)

ANALYTE	METHOD	LOQ (PPM)	RESULT (PPM)	STATUS
Arsenic (As)	ICP-MS	0.01	ND	PASS
Cadmium (Cd)	ICP-MS	0.01	ND	PASS
Lead (Pb)	ICP-MS	0.01	ND	PASS
Mercury (Hg)	ICP-MS	0.005	ND	PASS

ND: Non-Detect (below LOQ). LOQ: Limit of Quantification.

### 5. STORAGE & STABILITY

Recommended storage	+2 °C to +8 °C, protected from light
Stability under recommended conditions	24 months from release date
Retest date	2027-04-24
Container closure	10 mL clear borosilicate vial · butyl rubber stopper · aluminum flip-off seal

REPORT BY

*Dustin Newman*

**Dustin Newman**

Laboratory Director

Date: 2026-04-21

APPROVED & RELEASED BY

*Tori Johnson*

**Tori Johnson**

Operations Manager

Date: 2026-04-24



**ISO/IEC 17025:2017 Accredited Testing Laboratory**

Accredited by the American Association for Laboratory Accreditation (A2LA) for analytical chemistry, biopharmaceutical assays, and microbiological testing.

**A2LA Cert. #6377.01.01**

Scope: pharmaceutical & biological analysis  
vanguardlaboratory.com

Reference: A2LA Certificate #6377.01.01. Sample received in good condition. Results apply only to the items tested. Vanguard Laboratory, LLC did not participate in sampling. The compound described is intended for laboratory research use only — not for human or animal consumption, drug, food, agricultural, or cosmetic application.

