

CERTIFICATE OF ANALYSIS

IGF-1 LR3 Batch █████ January 2026

Product name	IGF-1 LR3 (Long R3 IGF-1)	Molecular formula	$C_{400}H_{625}N_{111}O_{115}S_9$
Batch number	████	Molecular weight	9117.5 g/mol
CAS number	946870-92-4	Quantity	1 mg
Date of manufacture	January 2026	PubChem CID	168009904
Storage	Powder: -20°C 3 years; 4°C 2 years; 15°C 3 months.	Storage	In solvent: -80°C 6 months; -20°C 1 month; 10°C 1 week

Amino acid sequence

H-Met-Phe-Pro-Ala-Met-Pro-Leu-Ser-Ser-Leu-Phe-Val-Asn-Gly-Pro-Arg-Thr-Leu-Cys-Gly-Ala-Glu-Leu-Val-Asp-Ala-Leu-Gln-Phe-Val-Cys-Gly-Asp-Arg-Gly-Phe-Tyr-Phe-Asn-Lys-Pro-Thr-Gly-Tyr-Gly-Ser-Ser-Ser-Arg-Arg-Ala-Pro-Gln-Thr-Gly-Ile-Val-Asp-Glu-Cys-Cys-Phe-Arg-Ser-Cys-Asp-Leu-Arg-Arg-Leu-Glu-Met-Tyr-Cys-Ala-Pro-Leu-Lys-Pro-Ala-Lys-Ser-Ala (Long-R3 IGF-1)
83 residues

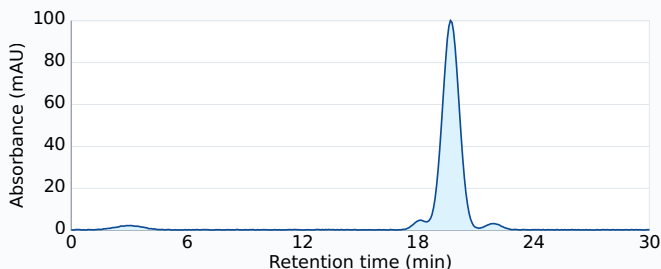
Analytical results

Test parameter	Method	Specification	Result	Status
Appearance	Visual	White to off-white powder	Conforms	✓
Peptide purity	RP-HPLC (C18)	≥ 98.5%	99.21%	✓
Molecular weight confirmation	ESI-MS	9117.5 ± 1.0 Da	Conforms	✓
Water content	Karl Fischer	≤ 10.0%	3.8%	✓
Counter-ion content	HPLC	TFA ≤ 0.50% (acetate salt)	11.8% (acetate)	✓
Total related substances	RP-HPLC	≤ 2.0%	0.79%	✓
Largest single impurity	RP-HPLC	≤ 1.0%	0.6%	✓
Residual solvent — Acetonitrile	GC-HS	≤ 410 ppm	< 410 ppm	✓
Residual solvent — DCM	GC-HS	≤ 600 ppm	< 600 ppm	✓
Residual solvent — DMF	GC-HS	≤ 880 ppm	< 880 ppm	✓
Bacterial endotoxins	LAL kinetic turbidimetric	< 5 EU/mg	< 0.5 EU/mg	✓
Bioburden	USP <61>	< 100 CFU/g (USP <61>)	< 10 CFU/g	✓

HPLC chromatogram

RP-HPLC C18

UV detection at 220 nm — gradient 10–70% ACN in 0.1% TFA over 30 min — flow 1.0 mL/min

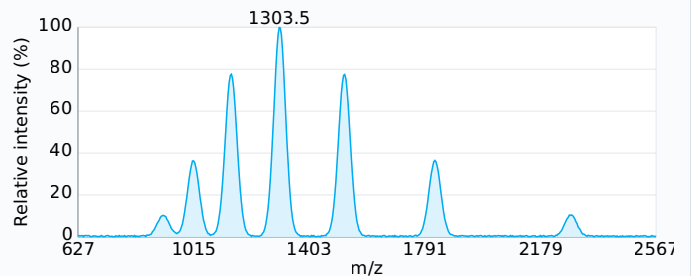


Main peak RT **19.7 min** · Area **99.21%** · Largest imp **0.6%** · Total related **0.79%**

Mass spectrum

ESI-MS positive

Electrospray ionisation — positive mode



Observed **[M+7H]⁷⁺ 1303.5** · MW **9117.5 g/mol**

✓ **Overall result: Conforms to specification**

Results relate only to the batch tested, by the stated methods at time of release, and are provided in good faith without warranty — OP Labs does not guarantee the accuracy or completeness of the results. Storage figures are recommendations, not stability data. Research use only.