



PrymaLab

PRYMALAB ANALYTICAL · IN-HOUSE LABORATORY

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CERTIFICATE NO.
PL-26-00052

VERIFICATION KEY
22HNM3TS

Scan or enter both at
prymalab.net/testing/verify

CERTIFICATE OF ANALYSIS · LOT RELEASE

IGF-1 DES(1-3) 2 mg

Lot PL-2609-052 · Lyophilized powder · Label claim 2 mg/vial

TESTED IN-HOUSE BY PRYMALAB

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

LOT / BATCH NUMBER PL-2609-052	DATE MADE 2026-09-15	DATE OF ANALYSIS 2026-09-17	DATE ISSUED 2026-10-03
RETEST / EXPIRY 2028-09-15	UNITS IN LOT / SAMPLED 250 / 2	STORAGE -20 °C, desiccated, dark; avoid freeze-thaw	CERTIFICATE TYPE Lot COA, 2 pages
COMPOUND IGF-1 DES(1-3) Des(1-3)-IGF-1; recombinant human IGF-1 lacking the N-terminal Gly-Pro-Glu	CAS NUMBER 112603-35-7	MOLECULAR FORMULA C₃₁₉H₅₀₁N₉₁O₉₆S₇ (reduced-chain calculation)	THEORETICAL MASS (AVG.) 7371.5 Da (reduced-chain calculation; 7365.4 Da with the three disulfides formed)
STRUCTURE H-TLCGAELVDALQFVCGDRGFYFNKPTGYGSSRRAPQTGIVDECCFRSCDLRRLREMYCAPLKPAKSA-OH (67 residues; three intrachain disulfides; free N- and C-termini)			

PURITY · RP-HPLC, AREA %

99.43%

Specification 99.0% • main peak at 5.90 min

IDENTITY · OBSERVED MASS

7372.1 Da

Theoretical 7371.5 Da • +0.6 Da (81 ppm)

OVERALL CONCLUSION

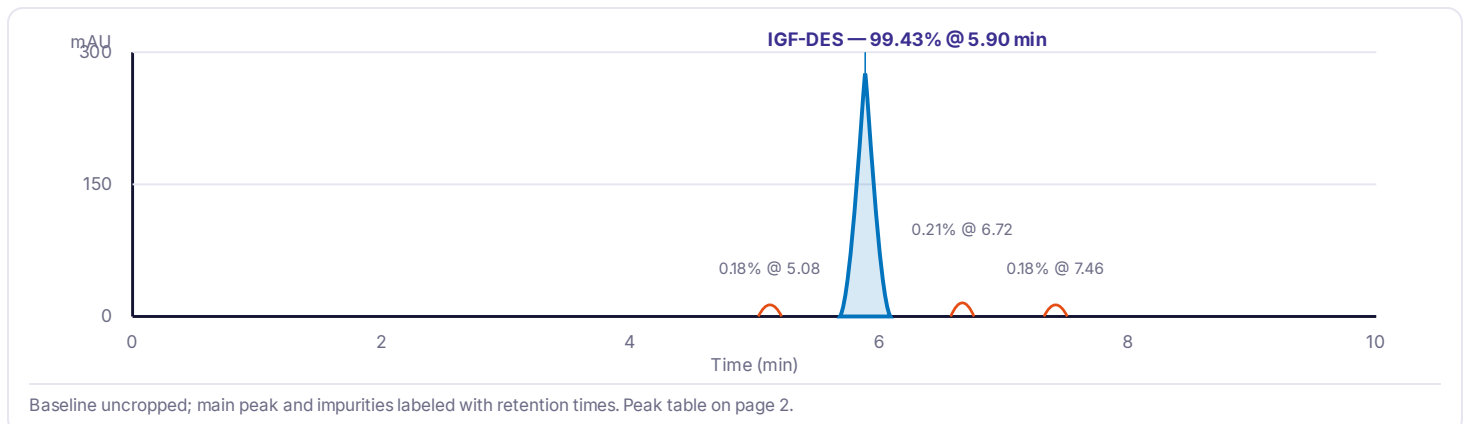
PASS

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	7372.1 Da	PASS
Purity	RP-HPLC, UV 214 nm, area%	99.0%	99.43%	PASS
Largest impurity	RP-HPLC, area%	1.0%	0.21% at 6.72 min	PASS
Water content	Karl Fischer	5.0%	1.8%	PASS
Bacterial endotoxin	LAL, kinetic	≤ 5.0 EU/mg	0.05 EU/mg	PASS
Sterility / bioburden	USP <71>, membrane filtration	No growth after 14 days	No growth; conforms	PASS

1 HPLC CHROMATOGRAM

Data file: IGFD_PL-2609-052_20260917_01 · Column C18 150 × 4.6 mm · UV 214 nm



**2 HPLC METHOD · IGFD_PL-2609-052_20260917_01**

INSTRUMENT

Waters Alliance e2695, SN E2695B742

DETECTION WAVELENGTH

214 nm

MOBILE PHASE A

0.1% TFA in water

COLUMN TEMPERATURE

30 °C

SAMPLE DILUENT

Water, 0.1% TFA

REFERENCE STANDARD

In-house IGF-DES reference, lot PL-RS-IGFD-01, RT 5.88 min

DATA SYSTEM

Empower 3, Build 3471

COLUMN

C18, 150 × 4.6 mm, 3.5 µm

MOBILE PHASE B

0.1% TFA in MeCN

INJECTION VOLUME

20 µL

SAMPLE CONCENTRATION

0.2 mg/mL

DETECTOR

Waters 2998 PDA

COLUMN PART / SERIAL

186003326 / USHX18211

FLOW RATE

1.0 mL/min

RUN TIME

10 min

BLANK INJECTED

Yes

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	5.08	7,570	0.18
2	5.90	4,191,080	99.43
3	6.72	8,820	0.21
4	7.46	7,570	0.18
Total		4,215,040	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

Waters Acquity SQD

IONIZATION / MODE

ESI, positive

OBSERVED M/Z (CHARGE)

1475.6 (5+ [M+5H]) · 1229.8 (6+ [M+6H]) · 1054.2 (7+ [M+7H])

DECONVOLUTED MASS

7372.1 Da

THEORETICAL MASS

7371.5 Da (reduced-chain calculation)

DIFFERENCE

+0.6 Da (81 ppm)

DATA FILE

IGFD_PL-2609-052_MS_20260917_01

ACCEPTANCE

Within ± 1.0 Da

6 ADDITIONAL TESTS

TEST	PERFORMED BY	DATE	REPORT / FILE
Water content	PrymaLab	2026-09-18	RPT-KF-PL-2609-052
Endotoxin	PrymaLab	2026-09-19	RPT-ET-PL-2609-052
Sterility	PrymaLab	2026-10-01	RPT-ST-PL-2609-052

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**

Analyst · performed the testing
Date: 2026-09-17

S. Calloway

Reviewer · checked against raw data
Date: 2026-10-02

M. Phelps

Lab Director · approved for release
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. Reference values (CAS, formula, theoretical mass, sequence) are literature values for the named compound. Authenticity: scan the QR code or enter certificate number PL-26-00052 and key 22HNM3TS 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.