CRAFA
PEPTIDE & COMPOUND ANALYSIS

Independent Peptide & Research-Compound Testing
14 Mill Lane, Cambridge, United Kingdom

CERTIFICATE OF ANALYSIS

Certificate of Analysis (COA)

No. CRF-2026-2063
Issued: 2026-10-14

PRODUCT IDENTIFICATION

PRODUCT
HGH 191aa 36 IU

SKU / INTERNAL CODE
CRF-2026-2063

PRESENTATION
Lyophilised powder, 12 mg (36 IU) vial

BATCH NUMBER
LOT-2610-2063

CLIENT
veltispeptides.mx

SAMPLE RECEIVED
2026-10-09

ANALYSIS DATE
2026-10-12

PRODUCTION DATE
2026-10-07

ISSUED
2026-10-14

EXPIRY / RETEST
2028-10-14

MOLECULAR FORMULA
C990H1528N262O300S7

MOLECULAR WEIGHT
22124.0

CAS NUMBER
12629-01-5

ANALYTICAL METHOD

PANEL
SILVER - HPLC-UV + LC-MS/MS (peptide mapping) + ICP-MS (Pb/As/Cd/Hg) + LAL endotoxin

METHOD
RP-HPLC-UV 214 nm · SEC-HPLC · LC-MS/MS tryptic digest · ICP-MS · LAL kinetic chromogenic (USP <85>)

INSTRUMENT
Waters ACQUITY · Thermo Q-Exactive · Agilent 7900 ICP-MS · Charles River Endosafe nexgen-PTS

Column: C4 2.1×100mm | Temperature: 45°C | Mobile phase: 0.1% TFA H2O / ACN | Flow: 0.3 mL/min | Retention time: 16.4 min

RESEARCH USE ONLY - NOT FOR HUMAN OR VETERINARY USE
Batch LOT-2610-2063 | Certificate CRF-2026-2063
Verify: VEL-b27c1f9a5d2e0f8b · crafalab.com/verify

1. PURITY & ASSAY - RP-HPLC-UV (214 nm) + SEC

Test	Specification	Result	Status
RP-HPLC Purity	≥98.0%	99.2%	PASS
Quantity	95.0-105.0%	12.02 mg (36.06 IU)	PASS
Dimer/Aggregate (SEC)	<2.0%	0.8%	PASS
Biological Potency	2.8-3.2 IU/mg	3.0 IU/mg	PASS

2. LC-MS/MS STRUCTURAL CONFIRMATION (peptide mapping)

Test	Reported data	Status
Intact mass (deconvoluted)	Theoretical 22,124 Da | Observed 22,126 Da | Δ +2 Da (+0.01%)	PASS
Tryptic peptides identified	21/21 (100% sequence coverage)	PASS
Disulfides	C53–C165 and C182–C189 both confirmed by non-reduced digest	PASS
N-terminus	free Phe1 confirmed (no Nα-acetylation)	PASS
Deamidation	<1.5% (Asn149 principal site)	PASS

3. HEAVY METALS - ICP-MS (USP <232>/<233>)

Test	Specification	Result	Status
Pb	≤5.0 µg/g	<0.05 µg/g	PASS
As	≤15.0 µg/g	<0.10 µg/g	PASS
Cd	≤2.0 µg/g	<0.02 µg/g	PASS
Hg	≤3.0 µg/g	<0.01 µg/g	PASS

4. ENDOTOXIN - LAL kinetic chromogenic (USP <85>)

Test	Reported data	Status
Result	<1.0 EU/mg limit | 0.22 EU/mg | PPC recovery 88%	PASS

FINAL BATCH RESULT

PASS - Conforms to specifications

ANALYST NOTES

191-aa somatropin, E. coli expressed. Host cell protein 3.2 ppm, host DNA <10 pg/mg. Isoform pattern matches reference standard.

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