CRAFA
PEPTIDE & COMPOUND ANALYSIS

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

CERTIFICATE OF ANALYSIS

Certificate of Analysis (COA)

No. CRF-2026-2099
Issued: 2026-10-17

PRODUCT IDENTIFICATION

PRODUCT	SKU / INTERNAL CODE
HCG 5000 IU	CRF-2026-2099
PRESENTATION	BATCH NUMBER
Lyophilised powder, 5.0 mg (5000 IU) vial	LOT-2610-2099

CLIENT	SAMPLE RECEIVED	ANALYSIS DATE
veltispeptides.mx	2026-10-12	2026-10-15

PRODUCTION DATE	ISSUED	EXPIRY / RETEST
2026-10-10	2026-10-17	2028-10-17

MOLECULAR FORMULA
Glycoprotein, α-subunit 92 aa + β-subunit 145 aa

MOLECULAR WEIGHT	CAS NUMBER
~36,700 Da (intact)	9002-61-3

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: 17.2 min

RESEARCH USE ONLY - NOT FOR HUMAN OR VETERINARY USE
Batch LOT-2610-2099 | Certificate CRF-2026-2099
Verify: VEL-b83c7f5a1d8e6f4b · crafalab.com/verify

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

Test	Specification	Result	Status
RP-HPLC Purity	≥98.0%	99.3%	PASS
SEC Aggregate/Dimer	<2.0%	0.9%	PASS
Quantity	95.0-105.0%	5.02 mg (5020 IU)	PASS
Biological Potency	900-1100 IU/mg	1000 IU/mg	PASS

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

Test	Reported data	Status
Intact mass (deconvoluted)	Theoretical 36,700 Da	Observed 36,742 Da (glycoform heterogeneity ±0.4%)	PASS
α-subunit tryptic peptides	14/14 identified	PASS
β-subunit tryptic peptides	21/21 identified (incl. C-terminal 145-aa specific marker)	PASS
Glycosylation	N-glycans at Asn52 (α) and Asn13/Asn30 (β) confirmed by oxonium ions m/z 204.09 / 366.14	PASS
Subunit-specific marker	β-CTP peptide (aa 113-145) detected - confirms hCG, not LH/FSH contamination	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 | 0.34 EU/mg | PPC recovery 76%	PASS

FINAL BATCH RESULT

PASS - Conforms to specifications

ANALYST NOTES

Chorionic gonadotropin, urinary-derived, high purity. β-CTP marker confirms identity against LH cross-reactivity. Potency by immunoassay against WHO 5th IS.

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