CRAFA
PEPTIDE & COMPOUND ANALYSIS

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

CERTIFICATE OF ANALYSIS

Certificate of Analysis (COA)

No. CRF-2026-2098
Issued: 2026-10-17

PRODUCT IDENTIFICATION

PRODUCT	Humanin 10 mg
SKU / INTERNAL CODE	CRF-2026-2098
PRESENTATION	Lyophilised powder, 10 mg vial
BATCH NUMBER	LOT-2610-2098
CLIENT	veltispeptides.mx
SAMPLE RECEIVED	2026-10-12
ANALYSIS DATE	2026-10-15
PRODUCTION DATE	2026-10-10
ISSUED	2026-10-17
EXPIRY / RETEST	2028-10-17
MOLECULAR FORMULA	C119H204N34O32S2
MOLECULAR WEIGHT	2687.2
CAS NUMBER	330936-69-1

ANALYTICAL METHOD

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

METHOD
RP-HPLC-UV 214 nm · LC-MS/MS ESI Q-TOF · ICP-MS · LAL kinetic chromogenic (USP <85>)

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

Column: C4 2.1×100mm | Temperature: 55°C | Mobile phase: 0.1% TFA H2O / ACN | Flow: 0.3 mL/min | Retention time: 9.9 min

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

Test	Specification	Result	Status
HPLC Purity	≥98.0%	99.6%	PASS
Quantity	95.0-105.0%	10.1 mg (101.0%)	PASS

2. LC-MS/MS STRUCTURAL CONFIRMATION

Test	Reported data	Status
Theoretical [M+H]+	2688.2 | Observed: 2688.5 | Δ +0.30 Da	PASS
Sequence Coverage (MS/MS)	≥95% | 100% (MAPRGFSCLLLLTSEIDLPVKRRA, 24 aa)	PASS
Key fragments	b5 578.3 · b11 1219.6 · y7 811.5 · y13 1447.9	PASS
Modifications	free N-terminal Met, free C-terminal Ala, no disulfide (single Cys), Met oxidation <0.4%	PASS

RESEARCH USE ONLY - NOT FOR HUMAN OR VETERINARY USE

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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 | 0.21 EU/mg | PPC recovery 90%	PASS

FINAL BATCH RESULT

PASS - Conforms to specifications

ANALYST NOTES

24-aa mitochondrial-derived cytoprotective peptide. Single free Cys - no dimer detected (<0.2%). Met oxidation <0.4%.

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