



CERTIFICATE OF ANALYSIS

Issued by an ISO/IEC 17025-accredited laboratory · raw data appended (page 2)

PASS

QC released for dispatch



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MOTS-C — 10mg

Mitochondrial ORF

1. PRODUCT IDENTIFICATION

Synonym	Mitochondrial ORF	Label claim	10mg
Sequence / structure	Met-Arg-Trp-Gln-Glu-Met-Gly-Tyr-Ile-Phe-Tyr-Pro-Arg-Lys-Leu-Arg	Lot / Batch	ZX260512-593 / B40613
Mol. formula	C101H152N28O22S2	Manufacture date	30 May 2026
Mol. weight	2174.62 g/mol	Date of analysis	2 Jun 2026
CAS number	1627580-64-6	Storage	-20 °C, dark, desiccated
Salt form	Acetate salt		

2. ANALYTICAL TEST RESULTS

Test	Method	Specification	Result	Verdict
Appearance	Visual	White/off-white powder	White to off-white lyophilized powder	PASS
Identity (ESI-MS)	LC-MS	Matches 2174.62 Da	2174.60 Da (Δ -9 ppm)	PASS
Purity	RP-HPLC, UV 220 nm	$\geq 98.0\%$ area	99.15%	PASS
Related substances	RP-HPLC	Single ≤ 1.0 / Total $\leq 2.0\%$	0.43 / 0.85%	PASS
Water content	Karl Fischer (USP <921>)	$\leq 8.0\%$	1.6%	PASS
Counter-ion: acetate	Ion chromatography	Report (3.0–15.0%)	8.3%	PASS
Net peptide content	Amino-acid analysis	$\geq 80.0\%$	88.9%	PASS
Bacterial endotoxin	LAL kinetic (USP <85>)	< 5.0 EU/mg	0.06 EU/mg	PASS
Heavy metals	ICP-MS (ICH Q3D)	Conforms	Conforms	PASS

CONCLUSION

All tested parameters CONFORM to the acceptance specifications. The batch is of high chromatographic purity ($\geq 98\%$) with an impurity profile, identity and residual/contaminant results meeting pharmaceutical-grade quality requirements. Material released. Supporting RP-HPLC chromatogram and ESI-MS spectrum are appended on page 2.

DXP.

Dr. Xu Ping

Analyst · 2 Jun 2026 · Zhongxi Research Institute

DFH.

Dr. Fang Hong (QC Manager)

Approved by · 2 Jun 2026 · Zhongxi Research Institute



APPENDIX — ANALYTICAL RAW DATA

MOTS-C 10mg · Lot ZX260512-593 · Cert. ZXR-COA-2026-98080



Scan to verify

Figure 1. RP-HPLC Chromatogram (UV 220 nm)

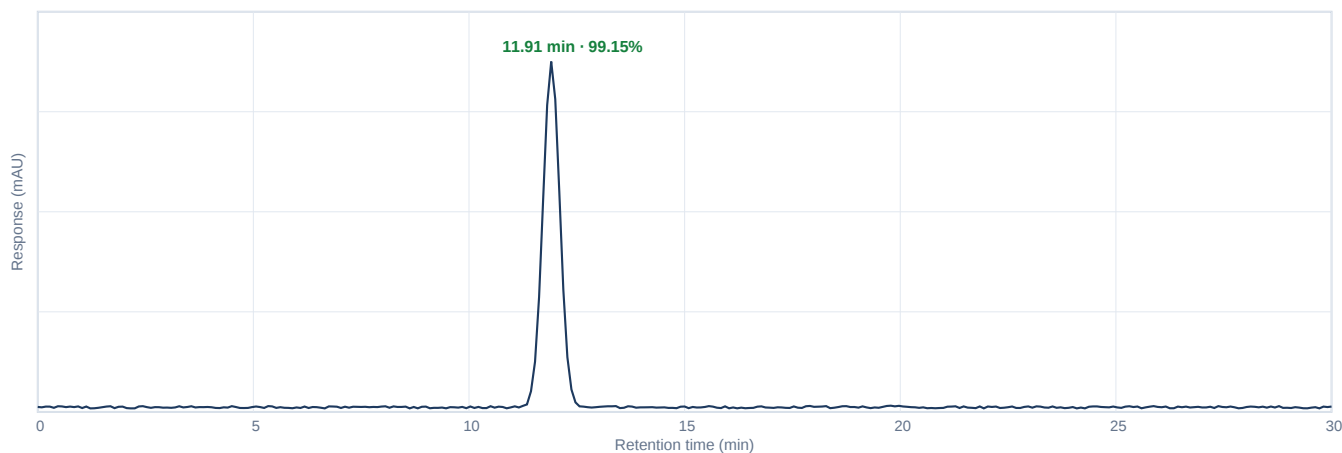
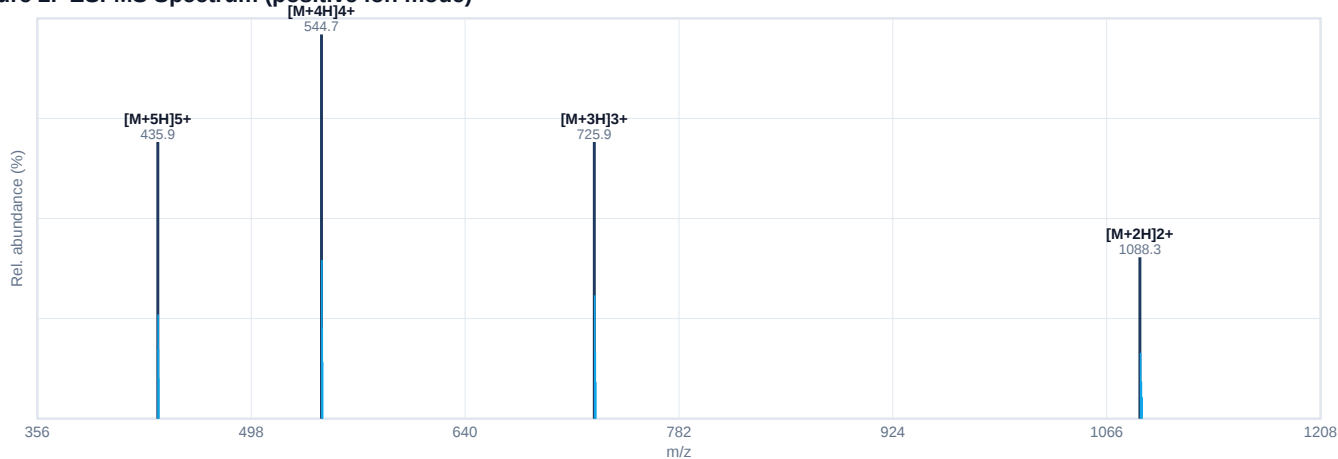


Figure 2. ESI-MS Spectrum (positive ion mode)



Interpretation

Identity confirmed by ESI-MS. Observed ions [M+2H]²⁺ 1088.3, [M+3H]³⁺ 725.9, [M+4H]⁴⁺ 544.7, [M+5H]⁵⁺ 435.9 deconvolute to a neutral monoisotopic-average mass of 2174.60 Da (theoretical 2174.62 Da; mass error -9 ppm), consistent with MOTS-C. No co-eluting species above 0.5% indicative of misidentification.

Methods — RP-HPLC: Agilent 1260 Infinity II; Zorbax SB-C18 4.6×250 mm, 5 μm; A: 0.1% TFA in water, B: 0.1% TFA in MeCN; 10–70% B over 30 min; 1.0 mL/min; 25 °C; 20 μL injection. MS: AB Sciex TripleTOF, ESI+, capillary 4.5 kV, deconvolution by Bio Tool Kit. KF: Metrohm 901. IC: Thermo Dionex ICS-6000. ICP-MS: Agilent 7900.