

Certificate of Analysis

Product Information

Product Name: MOT-c (Mitochondrial-derived peptide, MOTS-c)

CAS Number: 1610359-80-4

Molecular Formula: C₃₇H₄₉N₁₃O₉

Molecular Weight: 778.9 g/mol

Appearance: White to off-white lyophilized powder

Batch Information

Batch / Lot Number: MOTC-2025-002

Quantity: 100mg

Date of Manufacture: 02-Sep-2025

Retest Date: 02-Sep-2027

Storage Conditions: -20 °C, dry and protected from light

Analytical Results

Test	Specification	Result	Method
Identity (Mass Spectrometry)	Consistent with theoretical mass of 778.9 Da	779.0 Da (M+H) ⁺	ESI-MS
Purity (HPLC)	≥ 98.0 % (by area)	99.3 %	RP-HPLC
Sequence Confirmation	As per MOT-c peptide sequence (16 AA)	Confirmed	MS/MS, Edman degradation
Appearance	White to off-white lyophilized powder	White powder	Visual
Solubility	Soluble in sterile water (≥1 mg/mL)	Pass	Visual
Residual Solvent	≤ 0.5 %	<0.2 %	GC
Water Content (Karl Fischer)	≤ 5.0 %	2.1 %	KF titration
Acetate Content	Report only	4.7 %	Ion chromatography
Peptide Content	≥70 %	76 %	Nitrogen analysis
Endotoxin	< 0.25 EU/mg	0.06 EU/mg	LAL test
Microbial Limit Test	<100 CFU/g, no pathogens	Pass	USP <61>/<62>

Compliance Statement

The above batch of **MOT-c** complies with the stated specifications.

This batch of **MOT-c** meets all specified analytical and microbiological criteria and is suitable for **research use only**. Manufactured and tested under controlled conditions to ensure consistency, purity, and integrity.