

Analytical Laboratory

Certificate of Analysis (COA)

Product Information

Product Name: MOTS-C
Cas No: 1627580-64-6
Molecular Weight: 2174.59 Da $\pm$ 1.0
Molecular Formula: C101H152N28O22S2
Manufacturing Date: 15/08/2025
Retest Date: 14/08/2027
Amino Acid Sequence:
Met-Arg-Trp-Gln-Glu-Met-Gly-Tyr-Ile-Phe-Tyr-Pro-Arg-Lys-Leu-Arg

COA ID: CP-MOTS-26-01
Batch No: P250730-LC448144
Catalogue No: 448144
Date Received: 16/03/2026
Date Analysed: 16/03/2026

Analytic Methods:

- ✓ High performance liquid chromatography (HPLC)
- ✓ Mass spectrometry (LC-MS)
- ✓ Amino acid analysis

Key Analytic Results

Test Item	Specification	Result	Status
 Appearance	White Powder	Conforms	✓ Pass
 Solubility	Soluble in water	Conforms	✓ Pass
 pH	-	-	-
 Purity (HPLC)	$\geq$ 98.0%	98.29%	✓ Pass
 Peptide content	$\geq$ 80.0%	88.11%	✓ Pass
 Water content	$\leq$ 6.0%	3.65%	✓ Pass
 Sodium content	$\leq$ 5.0%	-	-
 Bacterial endotoxins	$<$ 5 EU/mg	Conforms	✓ Pass
 Molecular weight (MS)	2174.59 Da $\pm$ 1.0	Conforms	✓ Pass

Storage Conditions

Store at -20°C $\pm$ 5°C in a cool, dry environment. Protect from light and moisture.

Disclaimer

This Certificate of Analysis represents the results of testing for the specific batch listed above. The information provided is accurate to the best of our knowledge at the time of analysis. Products are intended for research use only. It is the responsibility of the end user to determine suitability for their specific application.

Contaminant Analysis

Contaminant	Specification	Result
Acetonitrile	≤ 410 ppm	✓ Not Detected
Methanol	≤ 3000 ppm	✓ Not Detected
Piperidine	≤ 5000 ppm	✓ Not Detected
DMF	≤ 880 ppm	✓ Not Detected
Triethylamine	≤ 320 ppm	✓ Not Detected
Dichloromethane (DCM)	≤ 600 ppm	✓ Not Detected
Lead (Pb)	≤ 0.1 ppm	✓ Not Detected
Cadmium (Cd)	≤ 0.05 ppm	✓ Not Detected
Mercury (Hg)	≤ 0.05 ppm	✓ Not Detected
Arsenic (As)	≤ 0.1 ppm	✓ Not Detected

Mass Spectrometry Report

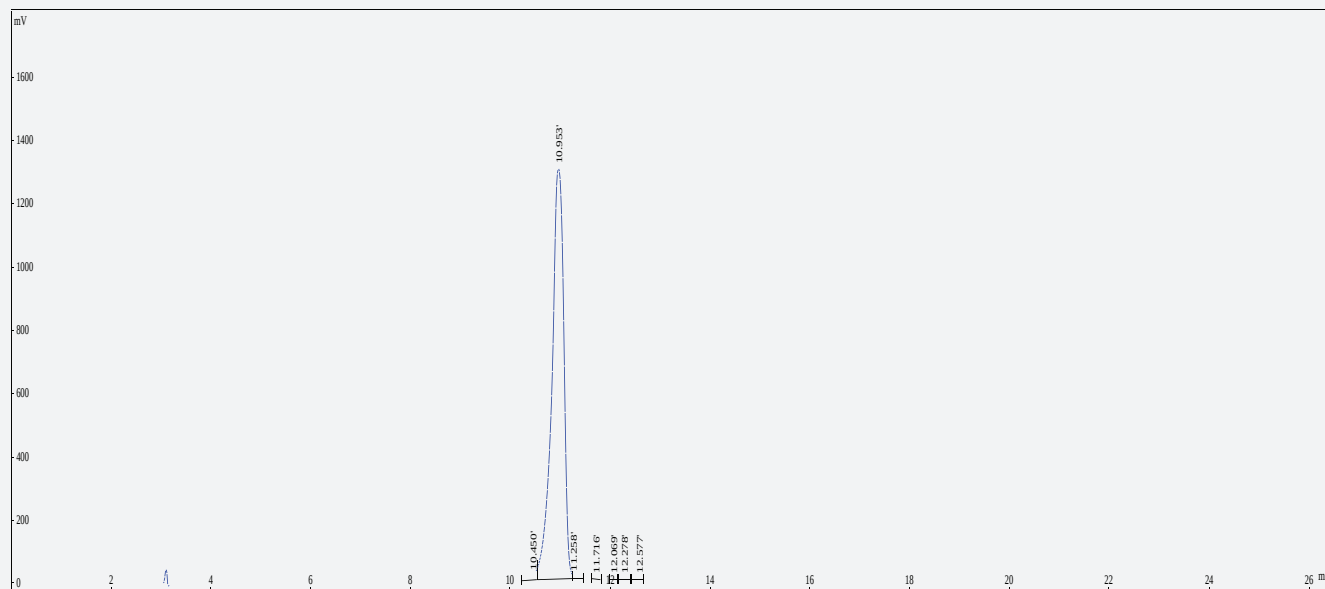


Observed molecular ion peak consistent with theoretical molecular weight.

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HPLC Chromatogram



Peak	Retention Time (min)	Area %
Principal Peak	10.953	98.29%
Impurity A	10.450	1.247%
Impurity B	11.258	0.2167%

Total Peak Area (Purity): 98.29%. Detection Method: UV @ 220 nm

Laboratory statement

All analyses were conducted by Crown Peptides UK using validated in-house methodologies and calibrated analytical instrumentation. Techniques employed include High-Performance Liquid Chromatography (HPLC) for purity assessment, Mass Spectrometry (MS) for molecular identity confirmation, and additional analytical methods where applicable for quality and safety evaluation.

This document represents a simplified, customer-facing version of the full technical Certificate of Analysis. A comprehensive technical report is retained on file and available upon request.

Name: Adrian Cole

Authorised by Quality Control Department
Crown Peptides UK Ltd. (QC Manager)

Date: 20/03/2026

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