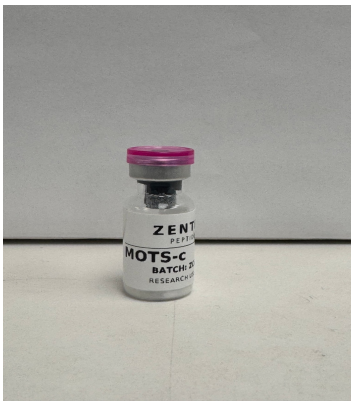
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CERTIFICATE OF ANALYSIS

COA #: **SD20261109_021_MOT40**

SAMPLE INFORMATION

Client	Zentra Brands Limited	**Accession #**	SD20261109_021
Compound	MOTS-c	**Date Received**	11/09/2026
Molecular Formula	C101H152N28O22S2	**Date Reported**	11/11/2026
Appearance	White lyophilized powder	**Labeled Quantity**	40mg
Sample Form	Lyophilized Vial	**Lot / Batch #**	ZC0012
Storage	Room Temp	**CAS Number**	1627580-64-6
Cap Color	Pink		



All Chemical Analysis Performed by LC-MS/MS

ANALYTICAL RESULTS

Test / Analysis	Method	Specification	Result	Status
Identity (Mass Confirmation)	LC-MS/MS	Matches reference mass	MOTS-c	**Pass**
Purity	LC-MS/MS	≥ 95.0%	99.217%	**Pass**
Net Peptide Content	HPLC	Report value	42.83 mg	**Pass**
Observed Molecular Mass	LC-MS	Within ± 1.0 Da	725 [M+3H]	**Pass**
Theoretical Molecular Mass	Reference	—	2174.62 Da	**Pass**
Related Substances / Impurities	LC-MS/MS	Report value	Not Detected	**Pass**
Residual Solvents	LC-MS/MS	Report value	Not Detected	N/A

John Humes, MS. **John Humes, MS.**
Analyzed by · Laboratory Analyst · 11/11/2026

Chetan Soni, PhD. **Chetan Soni, PhD.**
Approved by · Laboratory Director · 11/12/2026

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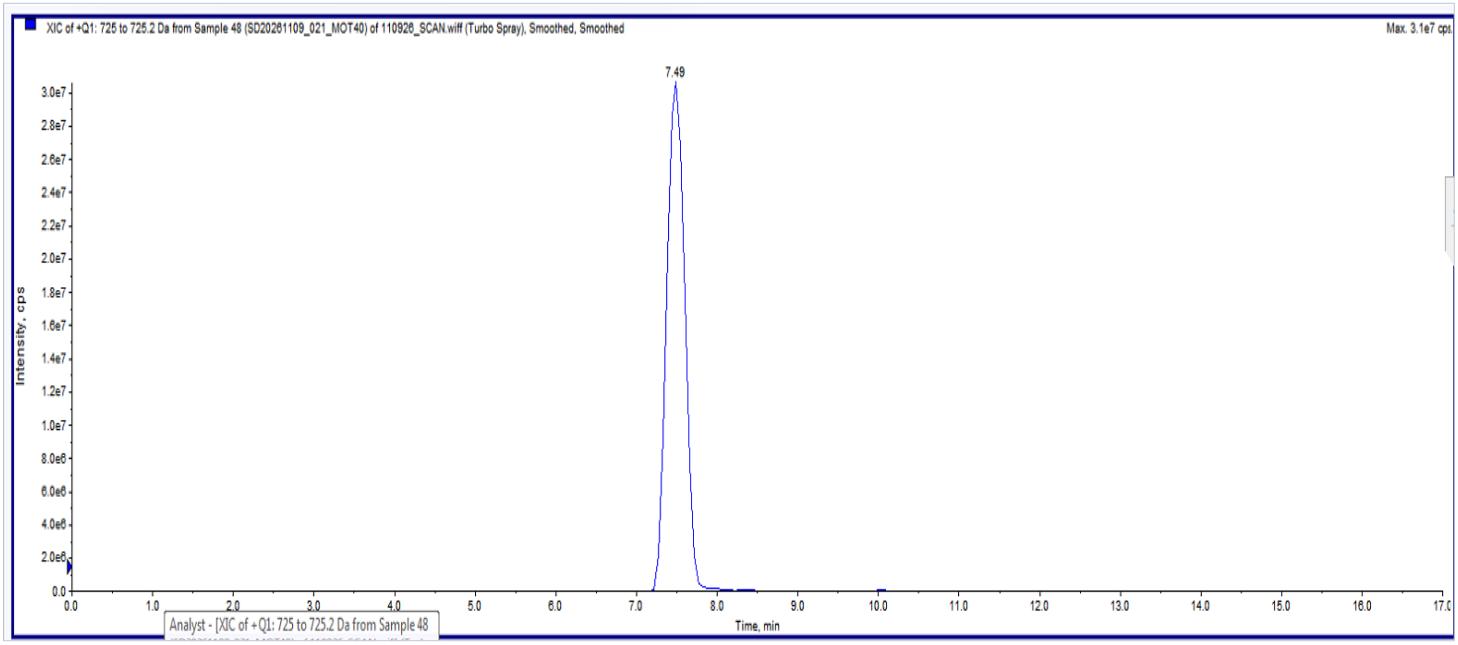
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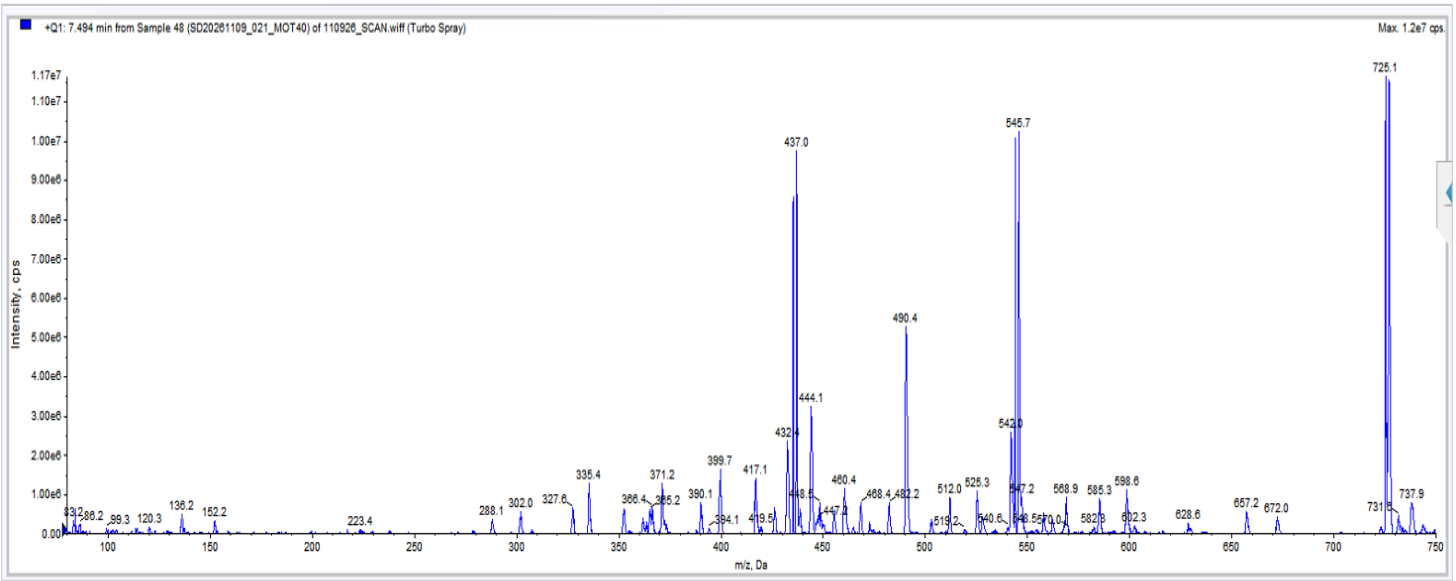
ANALYTICAL DATA

COA #: **SD20261109_021_MOT40**

CHROMATOGRAM



MASS SPECTRUM (LC-MS)



John Humes, MS.

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Analyzed by · Laboratory Analyst · 11/11/2026

Chetan Soni, PhD.

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ANALYTICAL INTERPRETATION

Chromatogram

Retention Time Match MOTS-c

Mass Spectrum (LC-MS)

Sample ID: SD20261109_021_MOT40

Observed major precursor ions:

m/z 437.0 [M+5H]
m/z 545.7 $[M+4H]^{4}$
m/z 725.1 $[M+3H]^{3}$

Deconvoluted molecular weight:

From m/z 437.0: ~2180.0 Da
From m/z 545.7: ~2178.8 Da
From m/z 725.1: ~2172.3 Da

Expected molecular weight:

MOTS-c: ~2174.5 Da

Assessment:

Multiple charge states were observed and deconvolute to a common molecular weight consistent with MOTS-c.
The observed mass spectrum matches the expected charge-state distribution for MOTS-c.

Conclusion:

MOTS-c detected.
PASS for identity by Q1 full-scan mass spectrometry.

John Humes, MS. **John Humes, MS.**
Analyzed by · Laboratory Analyst · 11/11/2026

Chetan Soni, PhD. **Chetan Soni, PhD.**
Approved by · Laboratory Director · 11/12/2026

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