

SAMPLE RECEIVED
August 20, 2026COA ISSUED
August 21, 2026

SAMPLE INFORMATION

Vendor	Sample Name	Sample Type
Optimal Bio Labs LLC	MOTS-C 40mg	White lyophilized powder
Lot Number	MW (g/mol)	
MC40-25276	2174.6	

ANALYTICAL METHODS

Identity: Confirmed via LC-MS/MS

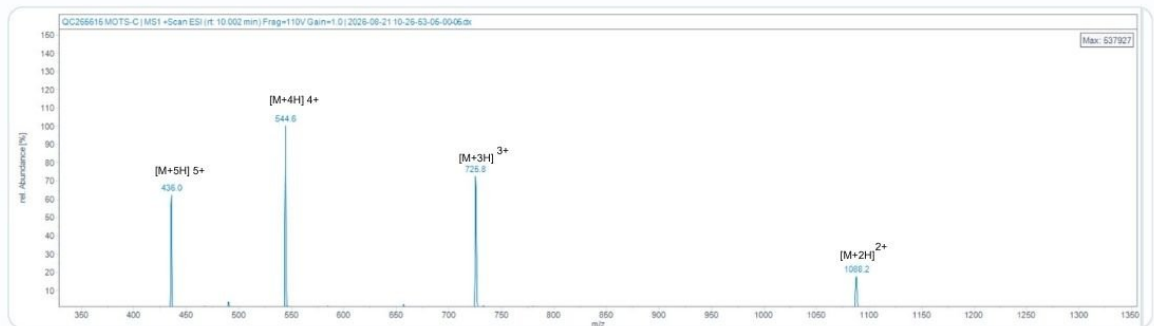
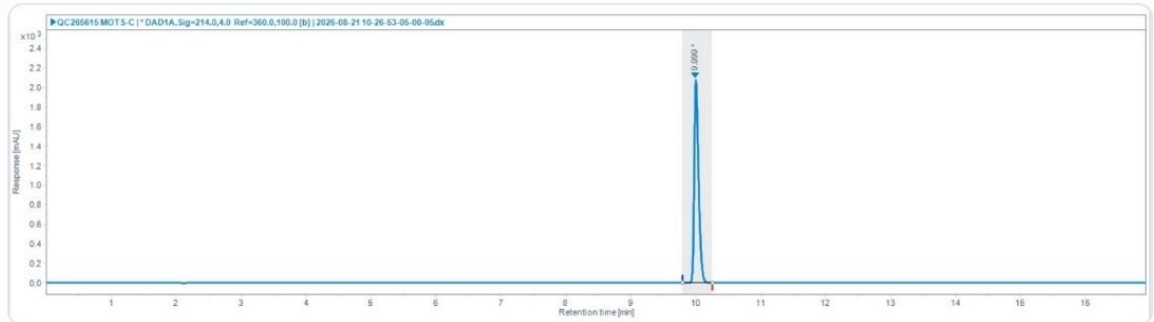
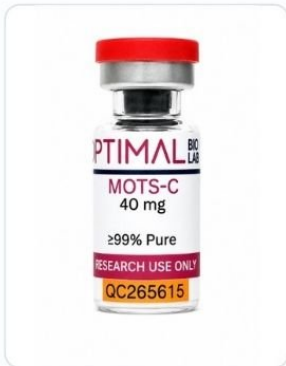
Purity: RP-HPLC (214 nm)

Content: HPLC quantitation

TEST RESULTS

Specification	Result	Method	Status
Identity: MOTS-C	MOTS-C	LC-MS/MS	✓ Conforms
Content	41.34 mg	HPLC Quantitation	✓ Conforms
Overall Purity	99.86%	RP-HPLC (214 nm)	✓ Conforms

HPLC Chromatogram · Retention Time 9.999 min

**Certification:** This Certificate of Analysis confirms that the tested material meets or exceeds Bioviridian's analytical quality specifications for peptide research use.Verify authenticity at bioviridians.com/coa-search.html using the Web Verification Code above.info@bioviridians.com*Shane Straight*Shane Straight, M.S.
Principal Chemist, Bioviridian Inc.



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Searchable via: FreedomDiagnosticsTesting.com

Product	Mots-c 40mg
Net Peptide Content	44.45 mg
Identity	MOTS-C

Certificate of Analysis

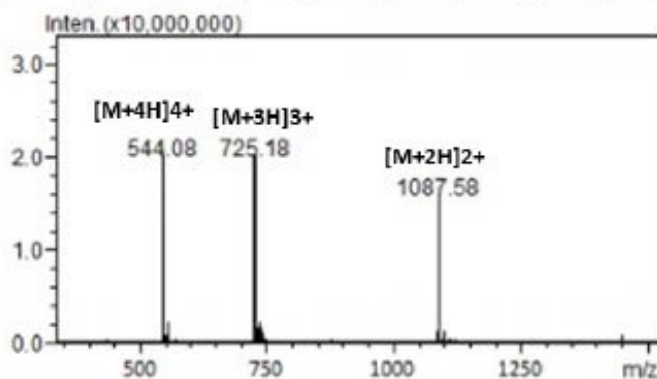
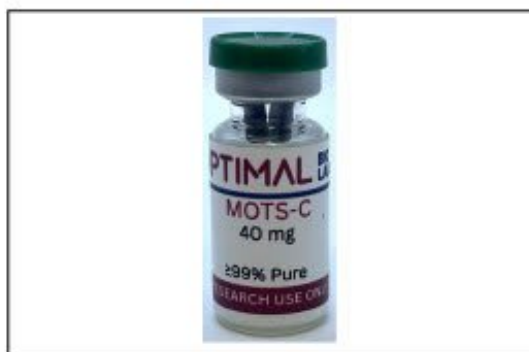
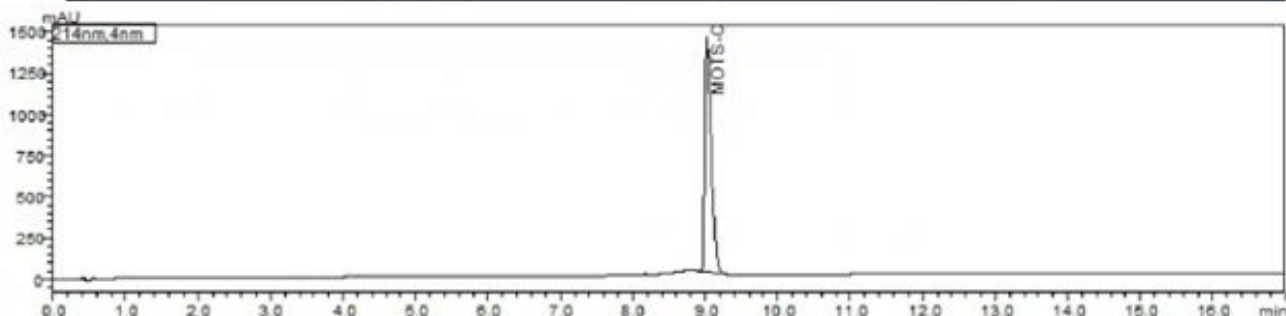
Accession Number	2601290058
Client	Optimal Bio Labs LLC
Search Code	Opti2601290058

Received Date:	01/29/2026
Reported Date:	1/31/2026

Lot	MC40-25276
Purity	99.508%
Appearance	White Lyophilized Powder

All Chemical Analysis was performed by HPLC with UV Detection Coupled with Mass Spectrometry

Mass Identification	Result
MOTS-C	99.508%



Stephen Schmidt

Stephen Schmidt
Principal Chemist

COA: 2601290058

The peptide purity analysis reported here was conducted using LCMS/MS under standard laboratory conditions. This analysis is intended for informational purposes only and is specific to the sample(s) provided. The peptides tested are intended for research use only and are not approved for human or veterinary use, diagnostic, therapeutic, or clinical applications. Results should be interpreted by qualified professionals within the scope of the intended research. The accuracy and reliability of the test may be influenced by sample integrity, handling, and other experimental variables.

Searchable via: FreedomDiagnosticsTesting.com

Contact at: Admin@FreedomDiagnostics.net

MOTS-c 40mg Technical Data Sheet

OPTIMAL BIO LABS — TECHNICAL DATA SPECIFICATION SHEET

[✓] ORIGINAL COA / TEST REPORT ATTACHED — PAGES 1-2

[✓] QUALITY ASSURANCE PROGRAM — PAGE 4

CORE TECHNICAL DATA MATRIX

Product Nomenclature	MOTS-c (human)
Molecular Classification	16-residue mitochondrial-derived amino acid sequence sequence
CAS Registry Number	1627580-64-6
Molecular Formula	C101H152N28O22S2
Molar Mass	2174.59 g/mol

MATERIAL PARAMETERS & SPECIFICATIONS

Form	Lyophilized powder, as listed for this product
Baseline Quality Standard	Verified ≥98.0% via high-performance liquid chromatography (HPLC).
Lot Verification	Sequence matrix matched via analytical mass spectrometry (MS) profile.
Storage Environment	Maintain sealed containment at -20°C, fully insulated from ambient moisture and light. Follow lot-specific instructions when supplied.
Target Application	Intended solely for parallel laboratory research mapping multi-variable hormone axis models.
Analytical Documentation	Results apply only to the sample and lot identified in the attached report.

Target application: For in-vitro laboratory research only. Not for human or veterinary use.

Chemical reference: PubChem compound record. Product specification: Optimal Bio Labs product listing.

Quality Assurance Protocol & Sourcing Transparency

1. Specification Baseline & Quality Threshold

Optimal Bio Labs operates under a standardized Quality Assurance Program. Every synthesized lot is managed against a 99%+ batch target, with a strict baseline purity threshold set at 98.0%. For product variations where a pre-linked independent analysis is unavailable, our internal quality validation framework remains fully active to ensure structural and analytical compliance before inventory release.

2. Sourcing Transparency & Verification Channels

We maintain direct, long-term relationships with a highly selective network of primary synthesis manufacturers. To protect proprietary trade channels and supply logistics, we do not utilize third-party brokers or downstream distributors.

Analytical data and reference documentation are compiled using multi-layered validation sources, which may include direct facility mapping, industry-standard third-party auditing via Fennrick, or independent validation by domestic testing laboratories. Where external reports are generated, they are often routed through the primary source (c/o Optimal Bio Labs) to ensure unaltered documentation for that specific batch variation. Qualifying independent records can be cross-referenced directly through the testing facility's verification systems.

3. Specification Discrepancy & Account Adjustments

We stand behind our strict quality baseline. In the event that a sealed, unopened reference unit from a qualifying lot is submitted to Fennrick for independent verification and returns an objective analytical purity reading below our 98.0% baseline threshold, the following standardized adjustment protocols apply:

- **Material Valuation Credit:** A balance reallocation will be applied to the account covering the baseline cost of the verified lot variation.
- **Logistical Cost Offset:** Account adjustments include credit allocations for standard logistics costs associated with the independent verification process and sample delivery, subject to our published terms and conditions.

Authenticity Through Verifiable Analysis.