# Certificate of Analysis

**ILS Laboratories**
8222 Vickers St, Suite 106, San Diego, CA 92111
(619) 329-3999 | ils-lab.com

## MOTS-C - 40mg

**Tested for: Crush Research**
https://www.crushresearch.shop/

**PASS**

| | | | |
|---|---|---|---|
| COA #: | **COA-2026-E85OFQ** | Method: | **Full QC Panel** |
| Lot Number: | **CRMTS-40-2605-1** | Analysis Date: | **06/01/2026** |
| Accession #: | **ACC-2026-3349** | Appearance: | **Good** |
| Labeled Content: | **40mg** | Sample Matrix: | **Lyophilized** |
| | | Date Received: | **05/27/2026** |

Scan to verify authenticity at ils-lab.com
**Access Code: MN4SR7XQ**

| Identity | Peptide Purity | |
|---|---|---|
| **MOTS-C** | **99.57%** | **Fentanyl Free** |

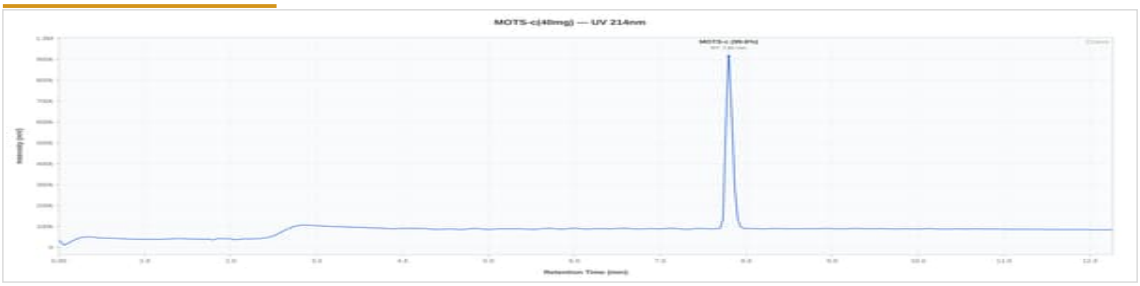


*MOTS-C 40mg - CRMTS-40-2605-1*

### Purity & Quant (HPLC)

| Analyte | Specification | Result | Unit | Status |
|---|---|---|---|---|
| **Peptide Purity (HPLC)** | >= 95.0% | **99.57%** | % | **PASS** |
| **Net Peptide Content** | Report Only | **41.8** | mg | N/A |
| **Identity (HPLC-RTM)** | MOTS-C | **Confirmed** | - | **PASS** |
| **Fentanyl Screen** | Immunoassay, 50 ng/mL cutoff | **Not Detected** | - | **PASS** |

### HPLC Chromatogram



*Representative chromatogram, Conformity V1 (99.48% purity, closest to batch mean of 99.20%)*

### HPLC Conformity Testing Results (3 samples tested)

| Sample | Purity | NPC | ID | Result |
|---|---|---|---|---|
| **Dedicated V0** | 98.55% | 40.91 mg | Confirmed | **PASS** |
| **Conformity V1** | 99.48% | 42.58 mg | Confirmed | **PASS** |
| **Conformity V2** | 99.57% | 41.8 mg | Confirmed | **PASS** |
| **Mean** | **99.20%** | **41.76 mg** | — | — |
| **Std Dev** | **0.4611%** | **0.6823 mg** | — | — |

**Dr. Greg Kalyuzhny**
Lab Director
6/1/2026

COA #: **COA-2026-E85OFQ**
Access Code: **MN4SR7XQ**
Verify: portal.ils-lab.com/verify/dfbxHC-iZzwePLvx
Issued: 6/1/2026



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## Heavy Metals Analysis (ICP-MS)

| Test | Specification | Result | Status |
|---|---|---|---|
| **Arsenic (As)** | NMT 1.5 ppm | *Not Detected* | **PASS** |
| **Cadmium (Cd)** | NMT 0.5 ppm | *Not Detected* | **PASS** |
| **Chromium (Cr)** | NMT 10 ppm | *Not Detected* | **PASS** |
| **Mercury (Hg)** | NMT 1.5 ppm | *Not Detected* | **PASS** |
| **Lead (Pb)** | NMT 1 ppm | *Not Detected* | **PASS** |

## Sterility Testing (PCR)

| Test | Specification | Result | Status |
|---|---|---|---|
| **Sterility (PCR)** | No Growth | **No Growth** | **PASS** |

## Endotoxin Testing (USP <85>)

| Test | Specification | Result | Status |
|---|---|---|---|
| **Endotoxin (USP <85>)** | NMT 5 EU/mL | **NMT 0.05 EU/mL** | **PASS** |

*Acceptance criteria: NMT 5 EU/mL per client specification.*

### Notes & Methodology

1. Date Tested: 06/01/2026. Methods: Purity & Quant (HPLC).
2. The sample was confirmed to be MOTS-C by HPLC. Identification by chromatographic retention time comparison with a reference standard.
3. Elemental impurities analyzed by ICP-MS per USP <233> methodology. Acceptance criteria are internal laboratory quality screening limits for research-use materials and do not represent evaluation against any specific pharmacopeial monograph or product specification.
4. Endotoxin tested per USP <85> kinetic turbidimetric method. Acceptance criteria per client specification.
5. Peptide purity determined by RP-HPLC area normalization at 214 nm. Value represents the percentage of the target peptide relative to all peptide-related peaks. Non-peptide process-related impurities, if detected, are excluded from the calculation.
6. Chromatogram shown is representative: Conformity V1 (99.48% purity, closest to batch mean of 99.20%).

ilac-MRA PJLA Testing Accreditation No. 59423

**Dr. Greg Kalyuzhny**
Lab Director
6/1/2026

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