Certificate of Analysis

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

MOTSc - 20mg

Tested for: Lumi Peptides
www.lumipeptides.com

PASS

COA #:	**COA-2026-957216**	Analysis Date:	**09/23/2026**
Lot Number:	**LPMots20-15**	Appearance:	**Good**
Accession #:	**ACC-2026-20146**	Sample Matrix:	**Lyophilized**
Labeled Content:	**20mg**	Volume:	**3mL**
		Date Received:	**09/17/2026**

Scan to verify authenticity at ils-lab.com
Access Code: MV2ZU6RA

Method: **Full QC Panel**

Identity	Peptide Purity	
MOTSc	**99.87%**	Fentanyl Free

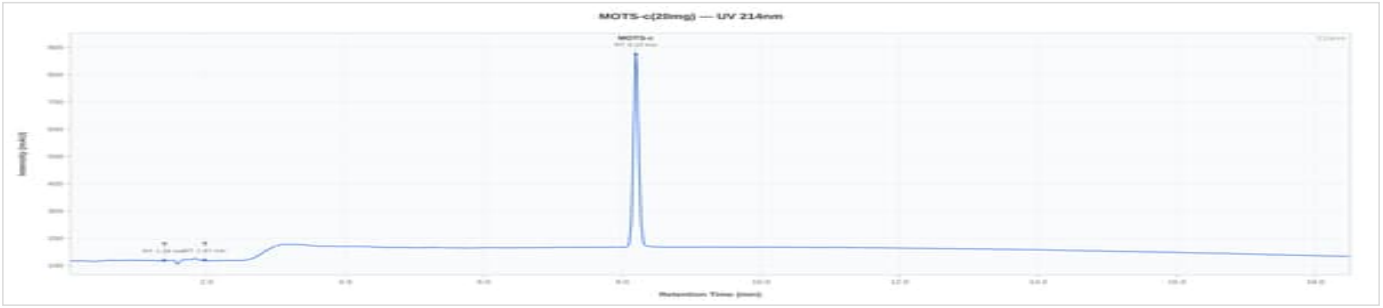


MOTSc 20mg - LPMots20-15

Purity, Identity & Quantitation (HPLC)

Analyte	Specification	Result	Unit	Status
Peptide Purity (HPLC)	>= 95.0%	**99.87%**	%	**PASS**
Net Peptide Content	Report Only	**20.61**	mg	N/A
Identity (HPLC-RTM)	MOTS-c	**Confirmed**	-	**PASS**
Fentanyl Screen	Immunoassay, 50 ng/mL cutoff	**Not Detected**	-	**PASS**

HPLC Chromatogram



Representative chromatogram, Dedicated V0

HPLC Conformity Testing Results (4 samples tested)

Sample	Purity	NPC	ID	Result
Dedicated V0	99.85%	20.57 mg	Confirmed	**PASS**
Conformity V1	99.82%	20.81 mg	Confirmed	**PASS**
Conformity V2	99.82%	20.63 mg	Confirmed	**PASS**
Conformity V3	99.87%	20.61 mg	Confirmed	**PASS**
Mean	**99.84%**	**20.65 mg**	—	—
Std Dev	**0.0212%**	**0.0921 mg**	—	—

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**
Lead (Pb)	NMT 1 ppm	*Not Detected*	**PASS**
Mercury (Hg)	NMT 1.5 ppm	*Not Detected*	**PASS**
Chromium (Cr)	NMT 10 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>)	Report Result	**0.133 EU/mL**	**Reported**

About this result: Endotoxin is reported as a quantitative value. Acceptable limits vary by product type and matrix, so no universal pass/fail threshold applies to RUO products. This result is below commonly referenced endotoxin thresholds.

Notes & Methodology

1. Date Tested: 09/23/2026. Methods: Purity, Identity & Quantitation (HPLC).
2. The sample was confirmed to be MOTSc 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 chromogenic 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: Dedicated V0 (99.85% purity, closest to batch mean of 99.84%).
7. Accreditation Scope: ILS Laboratories maintains ISO/IEC 17025 accreditation for activities listed in its published PJLA scope. Peptide testing reported on this certificate is performed for Research Use Only.
8. This certificate reports analytical results for the sample(s) submitted to ILS Laboratories for testing. All sample identifications, product names, brand names, lot/batch numbers, and labeled content are provided by the submitting party and have not been independently verified. Results reflect only the analytical testing of the specific sample(s) provided and do not constitute an evaluation or endorsement of the manufacturer's processes, quality systems, or overall production. ILS Laboratories makes no representations regarding the intended use, safety, efficacy, regulatory status, or intellectual property ownership of any materials tested.

ILS LABS

Issued by ILS Laboratories
(619) 329-3999
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Dr. Greg Kalyuzhny
Lab Director
09/23/2026

COA #: **COA-2026-957216**
Access Code: **MV2ZU6RA**
Verify: portal.ils-lab.com/verify/Gb-NYSZrOgT-ilst
Issued: 09/23/2026

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This certificate relates only to the sample(s) tested.