Nexa Verified

CERTIFICATE OF ANALYSIS

This product has been independently verified to meet **Nexa Labs quality and safety standards.**

BATCH INFORMATION

Batch / Lot #:	**ML71315**
Product Name:	**MOTS-c**
Strength:	**10 mg**
Formulation:	**Lyophilized Powder**
MFG Date:	**02/04/2026**
Expiration Date:	**02/03/2028**
Storage:	**-20 °C**

TESTS PERFORMED

All tests passed | Batch verified

IDENTITY	PURITY	APPEARANCE	SOLUBILITY	ENDOTOXINS	MICROBIAL
CONFIRMED	99.4%	PASS	PASS	< 0.5 EU/mg	PASS

NEXA VERIFIED SCORE™

PURITY	99/100
SAFETY	94/100
IDENTITY	100/100

NEXA VERIFIED™

This batch has been reviewed and approved to meet Nexa Labs standards for purity, identity, and safety.

Nexa Labs QA Team

QUALITY ASSURANCE

TESTED BY
ISO/IEC 17025 Accredited
Partner Laboratory

Nexa Verified

SCAN TO VERIFY
Scan with your phone to view the full report and verify this batch online.

THIRD-PARTY TESTED
Independently tested by an accredited laboratory.

TRANSPARENT
Full disclosure of every test result.

BATCH VERIFIED
Lot ML71315 can be re-verified anytime.

CERTIFICATE OF ANALYSIS

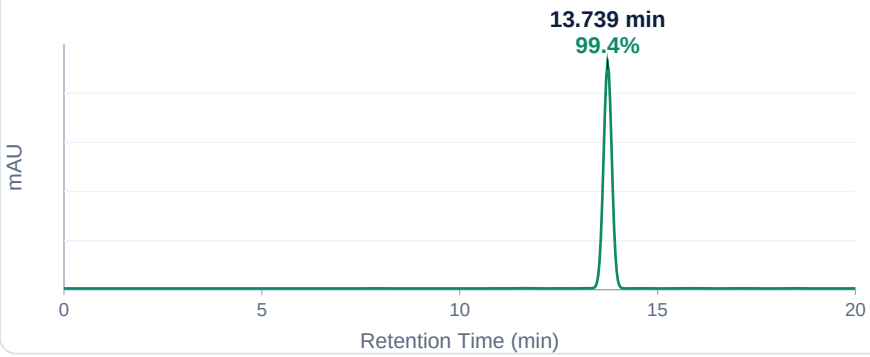
Batch / Lot #:	**ML71315**
Product:	**MOTS-c 10 mg**
MFG Date:	**02/04/2026**
Date Issued:	**02/09/2026**

IDENTITY & PURITY

Purity by HPLC at 220 nm. Identity confirmed by mass spectrometry (ESI).

TEST	METHOD	SPECIFICATION	RESULT	STATUS
Identity (Peptide)	MS (ESI)	Matches Reference	Confirmed	PASS
Molecular Weight	MS (ESI)	2174.63 ± 1.0 Da	2174.60 Da	PASS
Purity (Area %)	HPLC	≥ 98.0%	99.4%	PASS
TFA Content	19F NMR	≤ 0.500%	Conforms	PASS

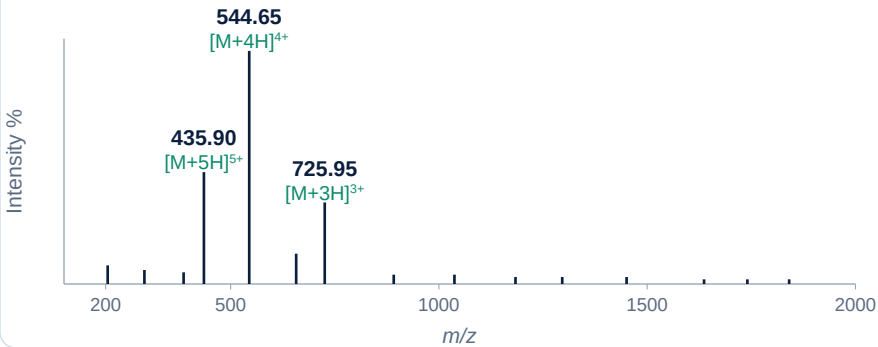
UPLC CHROMATOGRAM (220 nm)



CHROMATOGRAPHY DETAILS

Column:	Phenomenex Luna 3 µm C18(2) 4.6 × 150 mm
Mobile A:	0.1% TFA in Water
Mobile B:	0.1% TFA in Acetonitrile
Gradient:	23% → 90% B over 45 min
Flow Rate:	0.8 mL/min
Detection:	UV 220 nm
Inj. Volume:	12 µL
Acquired:	02/07/2026

MS SPECTRUM (ESI POSITIVE MODE)



MASS SPEC RESULTS

[M+4H]⁴⁺:	544.65 m/z
[M+5H]⁵⁺:	435.90 m/z
[M+3H]³⁺:	725.95 m/z
Observed Mass:	2174.60 Da
Theoretical:	2174.63 Da
Mass Accuracy:	+0.03 Da (14 ppm)
Interface:	ESI
Acquired:	02/09/2026

WHAT THIS MEANS

Purity says how much of the powder is the actual MOTS-c peptide vs. trace by-products. Mass spectrometry confirms the molecule is really MOTS-c by weighing it. At 99.4% purity and a measured mass within 0.03 Da of theoretical, this batch is a confirmed match.

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SAFETY & MICROBIAL

Confirms freedom from contamination, pyrogens, and physical defects.

TEST	METHOD	LIMIT	RESULT	STATUS
Total Aerobic Count	Plate Count	≤ 100 CFU/g	Conforms	PASS
Yeast & Mold Count	Plate Count	≤ 100 CFU/g	Conforms	PASS
Bacterial Endotoxins	LAL Assay	≤ 0.5 EU/mg	Conforms	PASS
Appearance	Visual	White / off-blue	White / off-blue	PASS
Solubility	Visual	10 mg / 1 mL H_2O	Clearly soluble	PASS

MICROBIAL CONTAMINATION
< 100 CFU/g

Counts bacteria and fungi colonies per gram. Below 100 means the product is essentially sterile in normal lab conditions. Important because contamination in an injectable can cause infection.

BACTERIAL ENDOTOXINS
< 0.5 EU/mg

Endotoxins are debris from dead bacteria. Even if a product is sterile, leftover endotoxins can trigger fever and immune reactions. The USP threshold for parenteral products is strict for a reason.

APPEARANCE & SOLUBILITY
PASS

A clean, freeze-dried powder that fully dissolves in water at the stated concentration. Color shifts, clumping, or cloudy reconstitution are early warnings of degradation or contamination.

STORAGE & HANDLING

Store at -20 °C. Reconstitute with bacteriostatic or sterile water. Use within stability period (exp 02/03/2028).