



CERTIFICATE NO.
PL-26-00063

VERIFICATION KEY
T5VDBPG9

Scan or enter both at
prymalab.net/testing/verify

CERTIFICATE OF ANALYSIS · LOT RELEASE · ISSUED FOR VIRSTELLIS

MOTS-c 10 mg

Lot PL-2609-063 · Lyophilized powder · Label claim 10 mg/vial · Distributed as MOTS-c

TESTED IN-HOUSE BY PRYMLAB

In-house analytical result,
not an independent third-party test

LOT / BATCH NUMBER PL-2609-063	DATE MADE 2026-09-16	DATE OF ANALYSIS 2026-09-17	DATE ISSUED 2026-10-03
RETEST / EXPIRY 2028-09-16	UNITS IN LOT / SAMPLED 250 / 2	STORAGE -20 °C, desiccated, dark	CERTIFICATE TYPE Lot COA, 2 pages

COMPOUND MOTS-c Mitochondrial open reading frame of the 12S rRNA type-c	CAS NUMBER 1627580-64-6	MOLECULAR FORMULA $C_{101}H_{152}N_{28}O_{22}S_2$	THEORETICAL MASS (AVG.) 2174.6 Da
SEQUENCE H-MRWQEMGYIFYPRKLR-OH (16 residues; free N- and C-termini)			

PURITY · RP-HPLC, AREA %

99.61%

Specification 99.0% • main peak at 6.44 min

IDENTITY · OBSERVED MASS

2174.8 Da

Theoretical 2174.6 Da • +0.2 Da (92 ppm)

OVERALL CONCLUSION

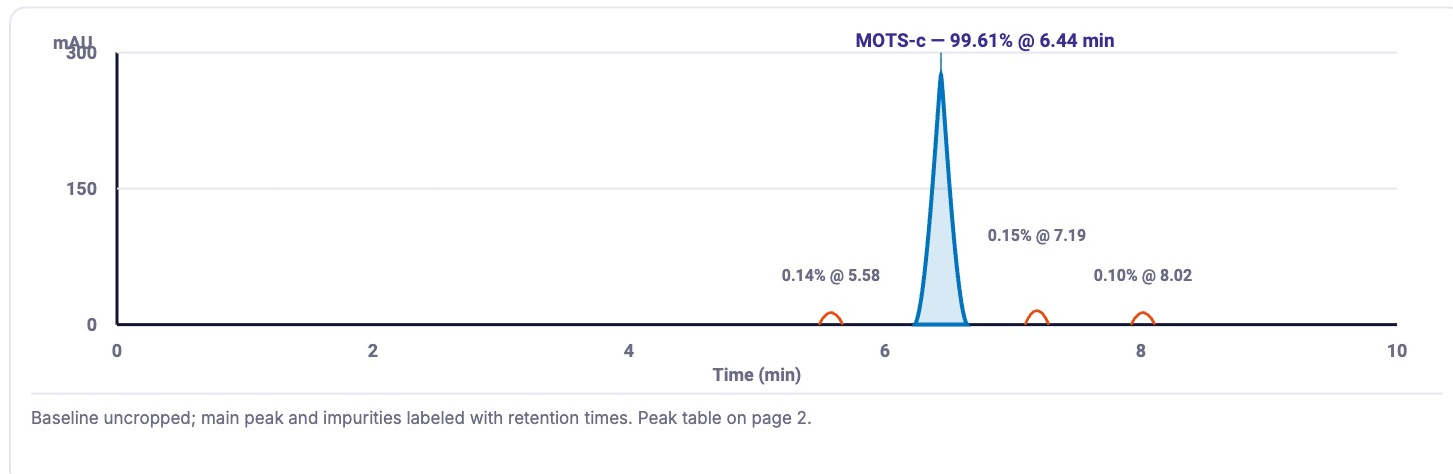
PASS

Meets every specification for the tests performed

TEST	METHOD	SPECIFICATION	RESULT	CONCLUSION
Appearance	Visual inspection	White to off-white lyophilized powder	White lyophilized powder	PASS
Identity (mass)	LC-MS, ESI positive	Theoretical ± 1.0 Da	2174.8 Da	PASS
Purity	RP-HPLC, UV 214 nm, area%	99.0%	99.61%	PASS
Largest impurity	RP-HPLC, area%	1.0%	0.15% at 7.19 min	PASS
Water content	Karl Fischer	5.0%	1.7%	PASS
Bacterial endotoxin	LAL, kinetic	≤ 5.0 EU/mg	0.05 EU/mg	PASS
Sterility / bioburden	USP <71>, membrane filtration	No growth after 14 days	No growth; conforms	PASS

1 HPLC CHROMATOGRAM

Data file: MOTS_PL-2609-063_20260917_01 · Column C18, 150 × 4.6 mm · UV 214 nm



**2 HPLC METHOD · MOTS_PL-2609-063_20260917_01**

INSTRUMENT

Waters Alliance e2695, SN E2695B742

DETECTION WAVELENGTH

214 nm

MOBILE PHASE A

0.1% TFA in water

COLUMN TEMPERATURE

30 °C

SAMPLE DILUENT

Water, 0.1% TFA

REFERENCE STANDARD

In-house MOTS-c reference, lot PL-RS-MOT-01, RT 6.42 min

DATA SYSTEM

Empower 3, Build 3471

COLUMN

C18, 150 × 4.6 mm, 3.5 µm

MOBILE PHASE B

0.1% TFA in MeCN

INJECTION VOLUME

20 µL

SAMPLE CONCENTRATION

0.5 mg/mL

DETECTOR

Waters 2998 PDA

COLUMN PART / SERIAL

186003326 / USHX18211

FLOW RATE

1.0 mL/min

RUN TIME

10 min

BLANK INJECTED

Yes

3 GRADIENT PROGRAM

TIME (MIN)	% A	% B
0.0	95	5
3.0	95	5
7.0	55	45
8.0	20	80
9.0	20	80
10.0	95	5

4 PEAK TABLE

PEAK	RT (MIN)	AREA	AREA %
1	5.58	6,020	0.14
2	6.44	4,283,230	99.61
3	7.19	6,450	0.15
4	8.02	4,300	0.10
Total		4,300,000	100.00

Threshold 0.05% area · Blank subtracted: Y · Purity = main peak area ÷ total integrated area × 100, to two decimals; main peak shaded.

5 IDENTITY BY MASS SPECTROMETRY

INSTRUMENT

Waters Acquity SQD

DECONVOLUTED MASS

2174.8 Da

DATA FILE

MOTS_PL-2609-063_MS_20260917_01

IONIZATION / MODE

ESI, positive

THEORETICAL MASS

2174.6 Da

ACCEPTANCE

Within ± 1.0 Da

OBSERVED M/Z (CHARGE)

1088.4 (2+ [M+2H]) · 725.9 (3+ [M+3H])

DIFFERENCE

+0.2 Da (92 ppm)

6 ADDITIONAL TESTS

TEST	PERFORMED BY	DATE	REPORT / FILE
Water content	PrymaLab	2026-09-18	RPT-KF-PL-2609-063
Endotoxin	PrymaLab	2026-09-19	RPT-ET-PL-2609-063
Sterility	PrymaLab	2026-10-01	RPT-ST-PL-2609-063

A test with no row here was not performed on this lot. Outside-laboratory reports, when used, are attached and named below.

7 REVIEW AND APPROVAL**D. Reynolds**

Analyst · performed the testing

Date: 2026-09-17

S. Calloway

Reviewer · checked against raw data

Date: 2026-10-02

M. Phelps

Lab Director · approved for release

Date: 2026-10-03

Raw data retained at: Empower 3 (Build 3471), project PL-2609, archive PL-ARC-2026; 7 years. Outside laboratory reports attached: None

This certificate applies only to the lot named above and describes the units sampled from it; it is not a guarantee for any other lot. Results were obtained by PrymaLab LLC's own laboratory (PrymaLab Analytical) and are not an independent third-party test unless an outside report is attached. This copy is issued for Virstellis, a distributor of the lot; the brand shown does not change the laboratory, the method or the results. Reference values (CAS, formula, theoretical mass, sequence) are literature values for the named compound. Authenticity: scan the QR code or enter certificate number PL-26-00063 and key T5VDBPG9 at prymalab.net/testing/verify; any copy that does not match the record shown there is not a PrymaLab certificate. PrymaLab LLC products are supplied for laboratory research use only and not for human or veterinary use.