



Client(s): Origin Labs I

Certified: 10/24/2026

This Certificate of Analysis certifies that the sample listed herein was tested by Kovera Labs using validated analytical methods and was found to meet the stated specifications at the time of analysis.

SAMPLE INFORMATION

|           |               |             |                    |
|-----------|---------------|-------------|--------------------|
| Product   | MOTS-c        | Form        | Lyophilized Powder |
| Batch     | OL-MTSC40-002 | Labeled Qty | 40 mg              |
| Cap Color | Black         | Crimp Color | Silver             |

TEST RESULTS

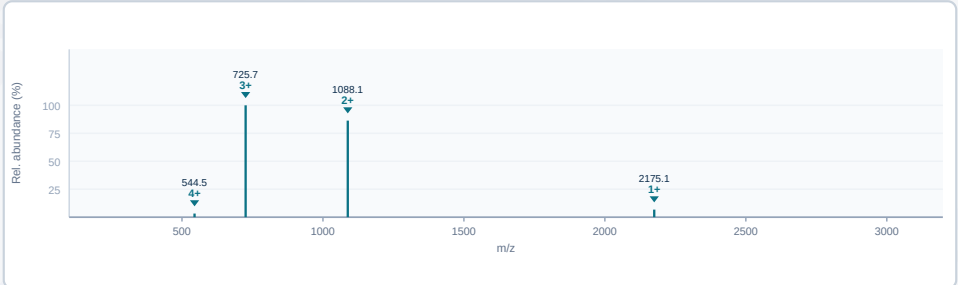
|                               | REFERENCE STANDARD | RESULT       |
|-------------------------------|--------------------|--------------|
| Batch Avg Purity              | (>98%)             | 99.767%      |
| Batch Avg Net Content         | (~40mg)            | 44.22 mg     |
| Identity Confirmation (LC-MS) | (MOTS-c)           | MOTS-c       |
| Endotoxin Safety Screen       | (≤0.5 EU/mL)       | PASS         |
| Fentanyl Presence Analysis    | (Not Detected)     | Not Detected |
| Rapid Sterility Screening     | (No Growth)        | No Growth    |
| Heavy Metal Screening         | (Negative)         | Negative     |

BATCH CONFORMITY RESULTS

| Vial          | Purity (%) | Net Content (mg) |
|---------------|------------|------------------|
| Vial 1        | 99.813     | 44.11            |
| Vial 2        | 99.722     | 44.33            |
| Batch Average | 99.767%    | 44.22 mg         |

MASS SPECTRUM

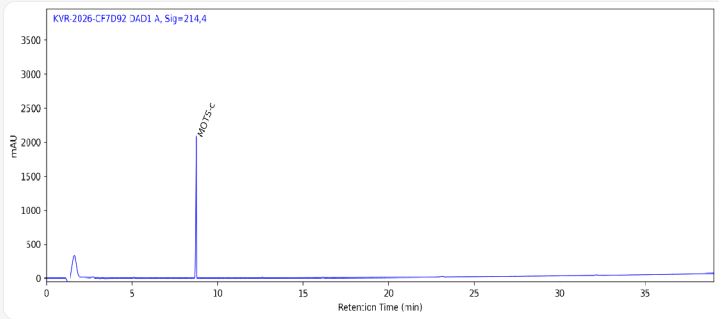
ESI + mode, MS1 centroid    Charge states confirmed 4



Each coloured stick is a confirmed charge state of the compound(s) above, drawn at the intensity measured for that ion. Height is relative to the strongest confirmed ion and is not proportional to concentration; content is reported in the Test Results above.

CHROMATOGRAM

Method: RP-HPLC | Column: C18 | Detection: DAD @ 214 nm



Emar Arghandinal  
Lab Director



koveralabs.com/verify

Report#: KVR-2026-CF7D92  
Access Code: TCU9DL8



CLIENT & SAMPLE INFORMATION

|              |               |                |             |
|--------------|---------------|----------------|-------------|
| Client       | Origin Labs I | Certified Date | 10/24/2026  |
| Product Name | MOTS-c        | Strength       | 40 mg       |
| Lot / Batch  | OL-MTSC40-002 | Condition      | Lyophilized |

This Certificate of Analysis certifies that the sample listed herein was tested for bacterial endotoxin using a kinetic chromogenic LAL assay in accordance with USP <85> Bacterial Endotoxins Test.

TEST METHODOLOGY

|                 |                                       |                |                   |
|-----------------|---------------------------------------|----------------|-------------------|
| Test Performed  | Quantitative Bacterial Endotoxin Test | Compendial Ref | USP <85>          |
| Assay Type      | Kinetic Turbidimetric                 | Detection λ    | 660 nm            |
| Detection Range | 0.01 - 1.0 EU/mL                      | Endotoxin Std  | E. coli O111:B4   |
| Dilution Vol    | 2.0 mL                                | Matrix         | LAL Reagent Water |

QUANTITATIVE RESULTS

| Parameter           | Result       |
|---------------------|--------------|
| Endotoxin Level     | < 0.05 EU/mL |
| Acceptance Limit    | ≤ 0.5 EU/mL  |
| Sample CV (%)       | 3.5%         |
| Spike CV (%)        | 3.8%         |
| Spike Recovery (%)  | 78%          |
| Final Determination | PASS         |

CONTROLS

| Control          | Expected   | Observed    | Status |
|------------------|------------|-------------|--------|
| Positive Control | Detectable | As expected | Pass   |
| Negative Control | No signal  | As expected | Pass   |

INTERPRETATION

Endotoxin content was quantitatively determined using a kinetic chromogenic LAL assay in accordance with USP <85>. Result reported as below quantitation threshold. The measured endotoxin level meets the specified acceptance criteria. The sample passes the endotoxin limit test.

AUTHORIZATION

REVIEWED BY  
**Lemar Arghandiwal**  
Lab Director



CLIENT & SAMPLE INFORMATION

Client

Origin Labs I

Certified Date

October 24, 2026

Product Name

MOTS-c

Strength

40 mg

Lot / Batch

OL-MTSC40-002

Condition

Lyophilized

ICP-MS metals analysis performed using EPA-referenced methods; results evaluated against internal acceptance criteria.

TEST METHODOLOGY

Test Performed

Elemental Impurities Analysis

Instrument

ICP-MS

Sample Prep

HNO<sub>3</sub> / H<sub>2</sub>O<sub>2</sub> matrix

Calibration

Multi-element standard curve

Internal Std

Sc, Ge, In, Bi

Material Type

Raw Material (Research Use)

ELEMENTAL IMPURITIES RESULTS

| Element |         | Result (ppm) | Acceptance Limit (ppm) | Status |
|---------|---------|--------------|------------------------|--------|
| Pb      | Lead    | < 0.5        | ≤ 10                   | PASS   |
| As      | Arsenic | < 0.15       | ≤ 1.5                  | PASS   |
| Cd      | Cadmium | < 0.05       | ≤ 0.5                  | PASS   |
| Hg      | Mercury | < 0.3        | ≤ 3                    | PASS   |

METHOD SUITABILITY (SPIKE RECOVERY)

| Element |         | Spike Level | Recovery | Criteria |
|---------|---------|-------------|----------|----------|
| Pb      | Lead    | 5 ppm       | 98%      | 70–150%  |
| As      | Arsenic | 0.75 ppm    | 102%     | 70–150%  |
| Cd      | Cadmium | 0.25 ppm    | 95%      | 70–150%  |
| Hg      | Mercury | 1.5 ppm     | 91%      | 70–150%  |

Spike recovery confirms method suitability for the sample matrix.

INTERPRETATION

Elemental impurities were determined using ICP-MS with EPA-referenced analytical methods. All tested elements (Pb, As, Cd, Hg) are below the stated acceptance limits. Spike recovery values fall within acceptable ranges, confirming method suitability. The sample meets the stated acceptance criteria for elemental impurities.

QUALITY CONTROL

Method Blank: Pass    CCV: Pass    Duplicate RPD: < 20%

AUTHORIZATION

REVIEWED BY

Lemar Arghandiwal

Lab Director



**CLIENT & SAMPLE INFORMATION**

|               |               |                |                    |
|---------------|---------------|----------------|--------------------|
| Client        | Origin Labs I | Sample Name    | MOTS-c             |
| Lot Number    | OL-MTSC40-002 | Sample Matrix  | Lyophilized Powder |
| Date Received | 10/23/2026    | Certified Date | 10/25/2026         |

**TEST METHODOLOGY****RAPID STERILITY SCREENING METHOD**

Sample is reconstituted and incubated in growth media under controlled conditions. Cultures are monitored for microbial growth over the incubation period. This rapid screening method provides preliminary sterility assessment and is suitable for quality control purposes. For regulatory compliance, full compendial sterility testing may be required.

**TEST RESULTS**

| TEST PARAMETER                 | SPECIFICATION               | RESULT                | STATUS |
|--------------------------------|-----------------------------|-----------------------|--------|
| Bacteria (Aerobic/Anaerobic)   | No Growth                   | No Growth             | PASS   |
| Fungi / Yeast                  | Not Detected                | Not Detected          | PASS   |
| TEST METHOD<br>Rapid Sterility | INCUBATION PERIOD<br>2 days | TEMPERATURE<br>30-35C |        |

**FINAL DETERMINATION****STERILITY SCREEN RESULT****SAMPLE PASSES STERILITY SCREEN**

No microbial growth detected during incubation period

