

MITOCHONDRIAL-DERIVED PEPTIDE
· AMPK

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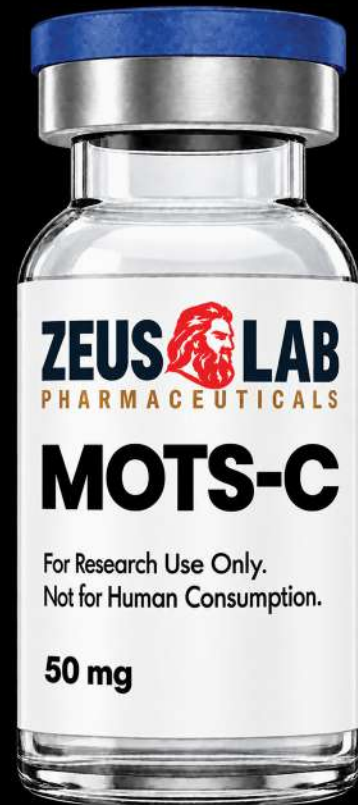
MOTS-C / 30 MG · 3 ML

A 16-amino-acid peptide encoded inside the mitochondrial 12S rRNA. Pre-filled at 30 mg / 3 ml — one click delivers 1 mg subcutaneously. Metabolic regulator, AMPK activator, exercise mimetic.

MOTS-C

AMPK

METABOLIC



Coded in your mitochondria. Restored by injection.

MOTS-C (Mitochondrial ORF of the 12S rRNA type-C) is one of the first characterised mitochondrial-derived peptides. It translocates to the nucleus under metabolic stress, activates **AMPK** and drives glucose uptake, fatty-acid oxidation and insulin sensitivity — independently of the classical insulin pathway (Lee et al., *Cell Metabolism* 2015; Reynolds et al., *Nature Comms* 2021). Endogenous MOTS-C declines with age; supplementation restores a signal your cells already know.

METABOLIC

01

Activates AMPK, the master energy sensor. Increases GLUT4 translocation and glucose disposal in skeletal muscle without insulin — improves fasting glucose and HOMA-IR in pre-clinical models (Lee 2015).

ENDURANCE

02

Acts as an exercise mimetic. In mice, MOTS-C markedly extended running time to exhaustion and preserved mitochondrial capacity in aged animals (Reynolds 2021). Shifts fuel selection toward fatty-acid oxidation.

LONGEVITY

03

Circulating MOTS-C falls with age and low levels track insulin resistance in humans (Ramanjaneya, *JCEM* 2019). Restoring the signal supports mitochondrial biogenesis, healthspan and metabolic flexibility.

Subcutaneous. Split the weekly dose across the week.

MOTS-C has a short circulating half-life but produces sustained AMPK-mediated effects, so dosing is typically **split across 2 – 3 injections per week** rather than daily. One click of this pen dispenses **1 mg (1000 mcg)** subcutaneously into the abdomen or thigh. Cycle 8 – 12 weeks, then rest 4 weeks. Best paired with resistance training or fasted cardio to compound the metabolic signal.

PROTOCOL 01

Entry

5 mg / wk

2.5 MG · TWICE WEEKLY

2.5 CLICKS · 2 · 5 CLICKS / WEEK

Onboarding dose. Assesses tolerance and injection response. One pen lasts approximately 6 weeks at this rate.

PROTOCOL 02

Standard

10 mg / wk

5 MG · TWICE WEEKLY

5 CLICKS · 2 · 10 CLICKS / WEEK

The reference research dose. Two 5 mg pulses per week keep AMPK signalling elevated with minimal peripheral load. One pen ≈ 3 weeks.

PROTOCOL 03

Metabolic

15 mg / wk

5 MG · THREE TIMES WEEKLY

5 CLICKS · 3 · 15 CLICKS / WEEK

Upper protocol used in metabolic-syndrome and endurance research contexts. Reserved for experienced users on a defined 8-week block. One pen ≈ 2 weeks.

CYCLE FRAMEWORK

8 – 12 weeks · 4 week off

Run the chosen protocol for 8 – 12 weeks, then rest for four weeks before repeating. MOTS-C is non-suppressive of endogenous hormonal axes; the wash-out period is for receptor-signal freshness and to re-baseline metabolic markers.

PEN MECHANICS

1 mg · per click

Each click dispenses 1 mg (1000 mcg) MOTS-C. Inject subcutaneously into the abdomen or thigh, hold 10 seconds, withdraw and cap. Refrigerate at 2 – 8 °C between uses; stable at room temperature for up to 30 days in use.

Independently HPLC verified. Janoshik Analytical.

TASK #198200 · JUN 2026

MOTS-C (16-aa)

MITOCHONDRIAL PEPTIDE · 30 MG / 3 ML

82.542%

M / M (MASS FRACTION)

97.905%

CHROMATOGRAPHIC PURITY

The peptide your mitochondria already speak.

MOTS-C is not a synthetic mimetic — it is a naturally-encoded mitochondrial signal that declines with age. Restoring it activates AMPK, improves glucose disposal and extends exercise capacity in every published model to date. Sealed 30 mg / 3 ml pen with 1 mg click precision. Research use only.

AUTHENTICATE

www.zeuslabs.in/NFC