



MOTS-C

Mitochondria-Derived Peptide · Metabolic Regulator & Longevity

OVERVIEW

MOTS-C is encoded within the mitochondrial genome and serves as a master regulator of cellular metabolism, insulin sensitivity, and energy homeostasis. Circulating levels decline significantly with age and supplementation is studied for restoring youthful metabolic function, enhancing exercise capacity, and activating longevity pathways. Its uniquely mitochondrial origin and retrograde nuclear signaling distinguish it from all other therapeutic peptides.

SPECIFICATIONS

Sizes Available	10mg or 40mg per vial
Recon (10mg)	Add 2ml BAC Water → 5,000mcg/ml
Recon (40mg)	Add 2ml BAC Water → 20,000mcg/ml
Route	Subcutaneous (SubQ) injection
Storage	Refrigerate 2–8°C; protect from light

CLINICAL APPLICATIONS

- Insulin sensitivity & glucose metabolism
- Exercise performance & adaptation
- AMPK activation & energy balance
- Obesity & metabolic syndrome
- Healthy aging & longevity
- Metabolic inflammatory regulation

MECHANISM OF ACTION

MOTS-C translocates to the nucleus under metabolic stress, activating AMPK — the master energy regulator — while modulating the folate cycle and methionine metabolism. It enhances skeletal muscle glucose uptake independently of insulin and regulates mitochondria-to-nucleus retrograde communication, a pathway central to longevity and metabolic flexibility across organ systems.

RECONSTITUTION & DOSING GUIDE · SubQ Injection · U-100 Insulin Syringe

10mg vial: 2ml = 5,000mcg/ml (10 units = 500mcg) · 40mg vial: 2ml = 20,000mcg/ml (10 units = 2,000mcg)

PHASE	DOSE	SYRINGE UNITS (U-100)	FREQUENCY
Starting	5mg (5,000mcg)	100u (10mg vial)	3x per week
Moderate	10mg	200u (10mg) / 50u (40mg)	3x per week
Standard	15mg	75 units (40mg vial)	3x per week
Max Dose	20mg	100 units (40mg vial)	3x per week