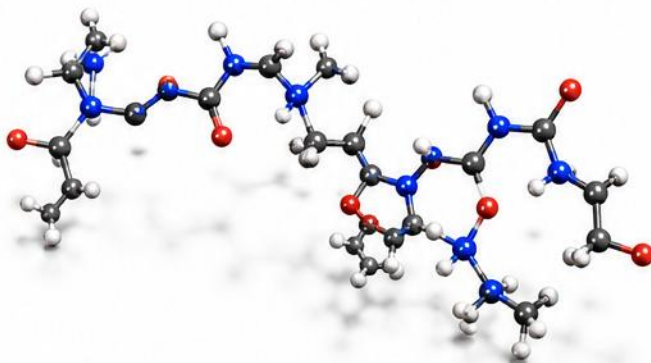




	PRODUCT NAME	MOTS-C (Mitochondrial Open Reading Frame of the 12S rRNA Type-C)
	SYNONYMS	MOTS-C; MOTS type-C; Mitochondrial ORF
	CAS NUMBER	1627583-73-1
	PEPTIDE CLASS	Metabolic regulator peptide
	PEPTIDE LENGTH	16 amino acids
	APPEARANCE	White to off-white lyophilized powder
	SOLUBILITY	Soluble in Water for Injection (WFI), bacteriostatic water, or sterile saline
	STORAGE (LYOPHILIZED)	2–8°C short-term; –20°C or below for long-term. Protect from light and moisture.
	STORAGE (AFTER RECONSTITUTION)	2–8°C. Avoid repeated freeze–thaw cycles.
	MOLECULAR WEIGHT	1,642.76 g/mol
	MOLECULAR FORMULA	C ₇₄ H ₁₁₉ N ₂₁ O ₂₅

ILLUSTRATIVE 3-D MOLECULAR VISUALIZATION

*Illustrative 3-D molecular visualization of MOTS-C
(Mitochondrial Open Reading Frame of the 12S rRNA Type-C).*



● Carbon ● Hydrogen ● Nitrogen ● Oxygen

Illustrative 3-D molecular visualization of the MOTS-C structure.

The model represents the chemical structure based on
the amino acid sequence.

PEPTIDE BACKBONE SEQUENCE (ONE-LETTER CODE)

Sequence (16 amino acids)

M R P F L V L L A L V L G A V

Note: This is the peptide backbone sequence (one-letter code).
No post-translational modifications are present in MOTS-C.

COMPONENT SPECIFICATIONS

PARAMETER	SPECIFICATION
CAS Number	1627583-73-1
Amino Acid Sequence (16 amino acids)	Met-Arg-Pro-Phe-Leu-Val-Leu-Leu-Ala-Leu-Gly-Ala-Val
One-Letter Sequence	MRPFLVLLALVLGAV
Molecular Formula	C ₇₄ H ₁₁₉ N ₂₁ O ₂₅
Molecular Weight	1,642.76 g/mol



MOLECULAR WEIGHT: 1,642.76 g/mol.

This value is the sum of the individual peptide molecular weights and is provided for reference only.
The compound is not a single chemical entity.



DESCRIPTION

MOTS-C (Mitochondrial Open Reading Frame of the 12S rRNA Type-C) is a naturally occurring peptide encoded within the mitochondrial genome.

MOTS-C plays a key role in metabolic regulation, mitochondrial function, insulin sensitivity, and exercise capacity.

This peptide is supplied as a lyophilized powder for research use only.



KEY CHARACTERISTICS

- ✓ Mitochondrial-encoded peptide
- ✓ Regulates metabolism and energy homeostasis
- ✓ Supports mitochondrial biogenesis and function
- ✓ Associated with improved insulin sensitivity
- ✓ Supplied as a sterile lyophilized powder
- ✓ Highly water soluble
- ✓ Typically analyzed using HPLC and LC-MS
- ✓ Stable for long-term frozen storage when lyophilized



SCIENTIFIC NOTE

MOTS-C is a research peptide and is not approved as a therapeutic drug by the FDA or Health Canada. All use is restricted to laboratory research.

The information provided is for reference purposes only and is not intended for human or veterinary use.

