

**CPX132Hu21 100µg**  
**OVA Conjugated Mitochondrial Open Reading Frame**  
**Of The 12S rRNA-c(MOTS-c)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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9th Edition (Revised in Jul, 2013)

## **[ PROPERTIES ]**

**Antigen:** MOTS-c-OVA

**Residues:** Synthetic Peptide

**Predicted isoelectric point:** 10.3

**Predicted Molecular Mass:** 2174.6Da

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Formulation:** Supplied as lyophilized form in PBS.

**Applications:** SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

## **[ RELEVANCE ]**

MOTS-c is a 16-amino acid peptide encoded in the mitochondrial genome, plays an important role in metabolic homeostasis. Its primary target organ appears to be the skeletal muscle, and its cellular actions inhibit the folate cycle and its tethered de novo purine biosynthesis, leading to AMPK activation. From research, it is said that mitochondria may actively regulate metabolic homeostasis at the cellular and organismal level via peptides encoded within their genome, because a role for mitochondrial dysfunction in the onset of skeletal muscle insulin resistance has been proposed and many studies have dealt with possible alteration in mitochondrial function in obesity and diabetes, both in humans and animal models. The research of MOTS-c has becoming a hotspot after this initial report. In order to support the researches, we developed full suite of reagents for MOTS-c.

## [ **USAGE** ]

Reconstitute in sterile PBS, pH7.2-pH7.4.

## [ **STORAGE AND STABILITY** ]

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

## [ **SEQUENCES** ]

The synthetic peptide's sequence is listed below.

MRWQEMGYIFYPRKLR