

Product Information

MemDX™ Membrane Protein Human UCP3 (Uncoupling protein 3) Expressed *in vitro* *E.coli* expression system, Full Length

Cat. No.: **MPX2706K**

This product is for research use only and is not intended for diagnostic use.

This product is a Human UCP3 membrane protein expressed *in vitro* *E.coli* expression system. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species

Human

Target Protein

UCP3

Protein Length

Full Length

Protein Class

Transport

TMD

6

Sequence

MVGLKPSDVPPTMAVKFLGAGTAACFADLVTFPLDTAKVRLQIQGENQAVQTARLVQYRGVLGILTMVRTEGPCSPYNGLVAGLQ

Product Description

Expression Systems

in vitro *E.coli* expression system

Tag

10xHis tag at the N-terminus

Protein Format

Soluble

Form

Liquid or Lyophilized powder

Buffer

Tris/PBS-based buffer, 6% Trehalose, pH 8.0

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

Target

Target Protein

UCP3

Full Name

Uncoupling protein 3

Introduction

Mitochondrial uncoupling proteins (UCP) are members of the larger family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. The different UCPs have tissue-specific expression; this gene is primarily expressed in skeletal muscle. This gene's protein product is postulated to protect mitochondria against lipid-induced oxidative stress. Expression levels of this gene increase when fatty acid supplies to mitochondria exceed their oxidation capacity and the protein enables the export of fatty acids from mitochondria. UCPs contain the three solcar protein domains typically found in MACPs. Two splice variants have been found for this gene.

Alternative Names

UCP3; SLC25A9; mitochondrial uncoupling protein 3; solute carrier family 25 member 9; uncoupling protein 3 (mitochondrial, proton carrier); Uncoupling protein 3

Gene ID

[7352](#)

UniProt ID

[P55916](#)