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Product Information

MemDX™ Membrane Protein Human UCP3 (Uncoupling protein 3) for Antibody Discovery

Cat. No.: **MP1463X**
This product is for research use only and is not intended for diagnostic use.

This product is a 48.73 kDa Human UCP3 membrane protein expressed in *In vitro* wheat germ 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

Molecular Weight
48.73 kDa

TMD
6

Sequence
MVGLKPSDVPPTMAVKFLGAGTAACFADLVTFPLDTAKVRLQIQGENQAVQTARLVQYRGVLGTILTMVRTEGPCSPYNGLVAGLQ

Product Description

Application
Enzyme-linked Immunoabsorbent Assay, Western Blot (Recombinant protein), Antibody Production, Protein Array

Expression Systems
in vitro wheat germ expression system

Tag
GST-tag at N-terminal

Protein Format
Liposome

Form
Liquid

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Purification

Glutathione Sepharose 4 Fast Flow

Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0

Storage

Store at +4°C for up to one week or several months at -80°C

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

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

Gene ID

7352

UniProt ID

P55916

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