

Product Information

MemDX™ Membrane Protein Human UCP1 (Mitochondrial uncoupling protein 1-UCP1)

Cat. No.: **MP0034F**

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

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

UCP1

Protein Length

Full Length

Protein Class

Transporter

Molecular Weight

33 kDa

TMD

6

Sequence

MGGLTASDVHPTLGVQLFSAGIAACLADVITFPLDTAKVRLQVQGECPTSSVIRYKGVLG
TITAVVKTEGRMKLYSGLPAGLQRQISSASLRIGLYDTVQEFLTAGKETAPSLGSKILAG
LTTGGVAVFIGQPTEVVKVRLQAQSHLHGKIPRYTGTYNAYRIIATTEGLTGLWKGTPN
LMRSVIINCTELVTYDLMKEAFVKNNILADDVPCHLVSALIAGFCATAMSSPVDVVKTRF
INSPPGQYKSPNCAMKVFTNEGPTAFFKGLVPSFLRLGSWNVIMFVCFEQLKRELSKSR
QTMDCAT

Product Description

Activity

Yes

Application

Screening & Display Technologies

Expression Systems

Cell-free expression system

Tag

Histidine tag fused to the N-terminal end of the protein

Protein Format

Proteoliposome

Form

Powder

Purification

Sucrose gradient

Purity

>60% by SDS-Page and Coomassie Blue staining

Buffer

Tris 50mM, pH 7.5

Storage

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

Target**Target Protein**

UCP1

Full Name

Mitochondrial uncoupling protein 1-UCP1

Introduction

Mitochondrial uncoupling proteins (UCP) are members of the 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. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H⁺/OH⁻ are not known. UCPs contain the three homologous protein domains of MACPs. This gene is expressed only in brown adipose tissue, a specialized tissue which functions to produce heat.

Alternative Names

UCP, SLC25A7

Gene ID

[7350](#)

UniProt ID

[P25874](#)