

Product Information

MemDX™ Membrane Protein Human UCP1 (Uncoupling protein 1) with N-6xHis-SUMO tag for Antibody Discovery

Cat. No.: **MP1403J**

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

This product is a 48.9 kDa Human UCP1 membrane protein expressed in E.coli. 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

Partial (2-307aa)

Protein Class

Ion Channel

Molecular Weight

48.9 kDa

Sequence

GGLTASDVHPTLGVLQFSAGIAACLADVITFPLDTAKVRLQVQGECPTSSVIRYKGVLTITAVVKTEGRMKLYSGLPAGLQRQISSA

Product Description

Expression Systems

E.coli

Tag

N-6xHis-SUMO

Form

Liquid or Lyophilized powder

Reconstitution

Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration).

Purity

>90% as determined by SDS-PAGE

Buffer

Liquid: Tris/PBS-based buffer, 5%-50% glycerol

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

Storage

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

Target**Target Protein**

UCP1

Full Name

Uncoupling protein 1

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

mitochondrial brown fat uncoupling protein; Mitochondrial brown fat uncoupling protein 1; SLC25A7; Solute carrier family 25 member 7; Thermogenin; UCP 1; UCP; UCP1; UCP1_HUMAN; uncoupling protein 1 (mitochondrial, proton carrier); Uncoupling protein 1

Gene ID

[7350](#)

UniProt ID

[P25874](#)