Recombinant Human UCP1 protein, GST-tagged

Cat. No. UCP1-46H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human UCP1(232 a.a. - 267 a.a.) fussed with GST tag at N-terminal was expressed in Wheat Germ.
Species	Human
Source	Wheat Germ
ProteinLength	232-267 a.a.
Description	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.
Form	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Molecular Mass	29.7 kDa
AA Sequence	PVDVVKTRFINSPPGQYKSVPNCAMKVFTNEGPTAF

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Applications	Enzyme-linked Immunoabsorbent Assay; Western Blot (Recombinant protein); Antibody Production; Protein Array
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	UCP1 uncoupling protein 1 (mitochondrial, proton carrier) [Homo sapiens]
Official Symbol	UCP1
Synonyms	UCP1; uncoupling protein 1 (mitochondrial, proton carrier); UCP; mitochondrial brown fat uncoupling protein 1; SLC25A7; thermogenin; solute carrier family 25 member 7;
Gene ID	7350
mRNA Refseq	NM_021833
Protein Refseq	NP_068605
MIM	113730
UniProt ID	P25874
Chromosome Location	4q28-q31
Pathway	Adipogenesis, organism-specific biosystem; Electron Transport Chain, organism-specific biosystem; Huntingtons disease, organism-specific biosystem; Huntingtons disease, conserved biosystem; Metabolism, organism-specific biosystem;

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	Mitochondrial Uncoupling Proteins, organism-specific biosystem; PPAR signaling pathway, organism-specific biosystem;
Function	anion transmembrane transporter activity; oxidative phosphorylation uncoupler activity;

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