Recombinant Human UCP1 Protein

Cat. No. UCP1-6539H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human UCP1 protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Mitochondrial protein responsible for thermogenic respiration, a specialized capacity of brown adipose tissue and beige fat that participates in non-shivering adaptive thermogenesis to temperature and diet variations and more generally to the regulation of energy balance. Functions as a long-chain fatty acid/LCFA and proton symporter, simultaneously transporting one LCFA and one proton through the inner mitochondrial membrane. However, LCFAs remaining associated with the transporter via their hydrophobic tails, it results in an apparent transport of protons activated by LCFAs. Thereby, dissipates the mitochondrial proton gradient and converts the energy of substrate oxydation into heat instead of ATP. Regulates the production of reactive oxygen species/ROS by mitochondria.
Form	Lyophilized powder/frozen liquid
Purity	> 90 % as determined by SDS-PAGE
Notes	For research use only.
Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 centigrade for one week. Store at -20 to -80 centigrade for twelve months from the

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	date of receipt.
Storage Buffer	Supplied as solution form in PBS, pH 7.5 or lyophilized from PBS, pH 7.5.
Reconstitution	Reconstitute in sterile water for a stock solution.
Shipping	They are shipped out with dry ice/blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	UCP1 uncoupling protein 1 (mitochondrial, proton carrier) [Homo sapiens (human)]
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

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