



UCP3 Monoclonal Antibody

Catalog No	YP-mAb-16510
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	UCP3
Immunogen	The antiserum was produced against synthesized peptide derived from human UCP3. AA range:259-308
Specificity	UCP3 Monoclonal Antibody detects endogenous levels of UCP3 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	SLC25A9;UCP 3;UCP3;Mitochondrial uncoupling protein 3;Solute carrier family 25 member 9
Observed Band	33kD
Calculated Molecular Weight	33kD
Cell Pathway	Mitochondrion inner membrane ; Multi-pass membrane protein .
Tissue Specificity	Only in skeletal muscle and heart. Is more expressed in glycolytic than in oxidative skeletal muscles.
Function	disease:Defects in UCP3 may be involved in severe obesity [MIM:601665]., function:UCP are mitochondrial transporter proteins that create proton leaks across the inner mitochondrial membrane, thus uncoupling oxidative phosphorylation. As a result, energy is dissipated in the form of heat. May play a role in the modulation of tissue respiratory control. Participates in thermogenesis and energy balance.,similarity:Belongs to the mitochondrial carrier family., similarity:Contains 3 Solcar repeats.,tissue specificity:Only in skeletal muscle and heart. Is more expressed in glycolytic than in oxidative skeletal muscles.,



Background

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.

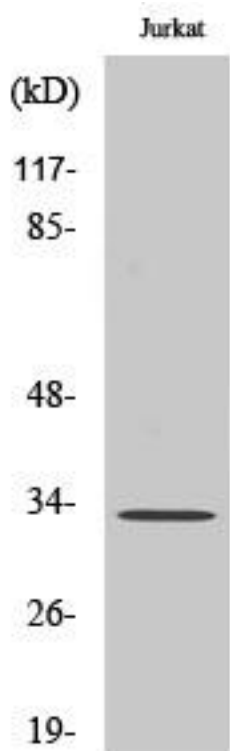
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using UCP3 Monoclonal Antibody