

UCP3 Polyclonal Antibody

Catalog No: YT4814

Reactivity: Human; Mouse; Rat

Applications: WB;ELISA

Target: UCP3

Gene Name: UCP3

Protein Name: Mitochondrial uncoupling protein 3

P55916

P56501

Human Gene Id: 7352

Human Swiss Prot

No:

Mouse Gene ld: 22229

Mouse Swiss Prot

No:

Rat Gene ld: 25708

Rat Swiss Prot No: P56499

Immunogen: The antiserum was produced against synthesized peptide derived from human

UCP3. AA range:259-308

Specificity: UCP3 Polyclonal Antibody detects endogenous levels of UCP3 protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500 - 1:2000. ELISA: 1:10000. Not yet tested in other applications.

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.



Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 33kD

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.

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.,

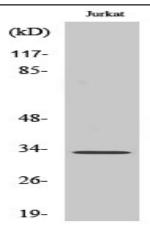
Subcellular Location:

Mitochondrion inner membrane; Multi-pass membrane protein.

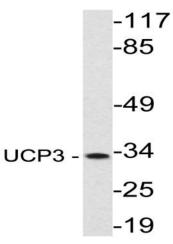
Expression:

Only in skeletal muscle and heart. Is more expressed in glycolytic than in oxidative skeletal muscles.

Products Images



Western Blot analysis of various cells using UCP3 Polyclonal Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Western blot analysis of lysate from Jurkat cells, using UCP3 antibody.