



UCP1 Rabbit mAb

Catalog No	YP-rAb-18053
Isotype	IgG
Reactivity	Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	UCP1 SLC25A7 UCP
Protein Name	Mitochondrial brown fat uncoupling protein 1 (UCP 1) (Solute carrier family 25 member 7) (Thermogenin)
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1000; WB 1:1000-5000; IF 1:200-1000; ELISA 1:5000-20000; IP 1:50-200 Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	
Observed Band	33kD
Calculated Molecular Weight	33kD
Cell Pathway	Cytoplasm
Tissue Specificity	Brown adipose tissue.
Function	UCP are mitochondrial transporter proteins that create proton leaks across the inner mitochondrial membrane, thus uncoupling oxidative phosphorylation from ATP synthesis. As a result, energy is dissipated in the form of heat.,polymorphism:The Thr-64 polymorphism is associated with an increased waist-to-hip ratio. The Leu-229 polymorphism is associated with susceptibility to type II diabetes mellitus.,similarity:Belongs to the mitochondrial carrier family.,similarity:Contains 3 Solcar repeats.,subunit:Acts as a dimer forming a proton channel.,tissue specificity:Brown adipose tissue.,
Background	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





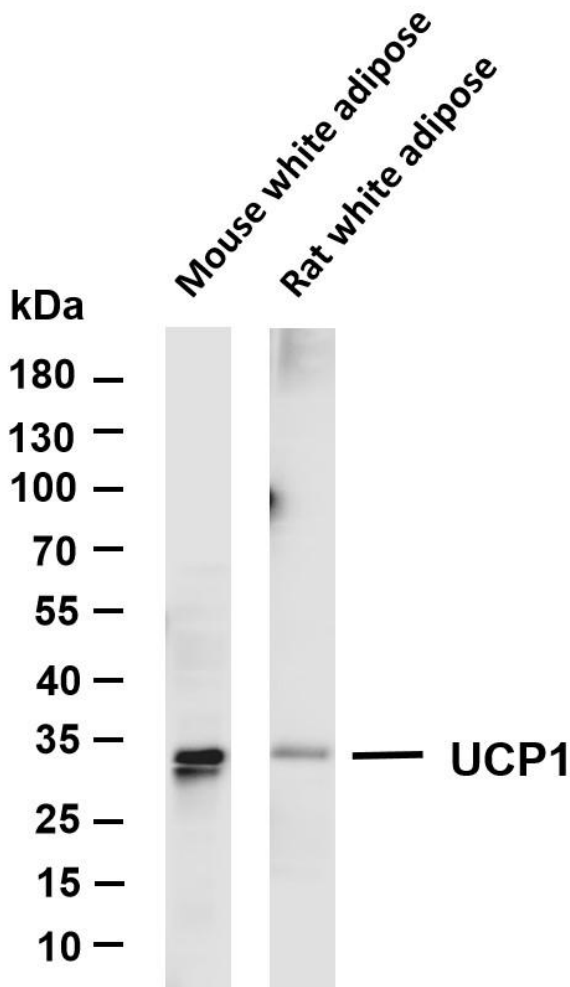
inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H⁺/OH⁻ 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. [provided by RefSeq, Jul 2008],

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.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-UCP1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Mouse white adipose Lane 2: Rat white adipose Predicted band size: 33kDa Observed band size: 33kDa

