

UCP1 Rabbit pAb

Catalog No.: A5857 **26 Publications**

Basic Information

Observed MW

33kDa

Calculated MW

33kDa

Category

Primary antibody

Applications

ELISA, WB, IHC-P, IF/ICC

Cross-Reactivity

Mouse, Rat

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.

Recommended Dilutions

WB	1:1000 - 1:5000
IHC-P	1:50 - 1:200
IF/ICC	1:50 - 1:200

Immunogen Information

Gene ID

7350

Swiss Prot

P25874

Immunogen

Recombinant Protein corresponding to a sequence within amino acids 1-307 of human UCP1 (NP_068605.1).

Synonyms

UCP; SLC25A7; UCP1

Contact

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Product Information

Source

Rabbit

Isotype

IgG

Purification

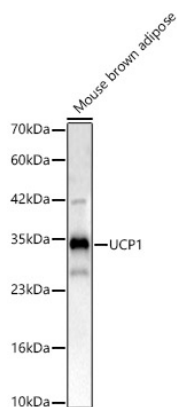
Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.05% proclin300, 50% glycerol, pH7.3.

Validation Data



Western blot analysis of lysates from Mouse brown adipose, using UCP1 Rabbit pAb (A5857) at 1:2000 dilution.

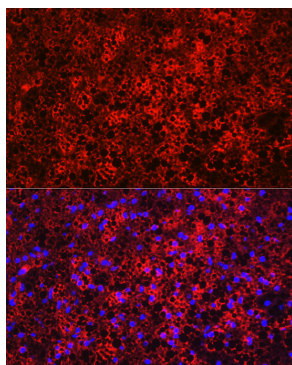
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25ug per lane.

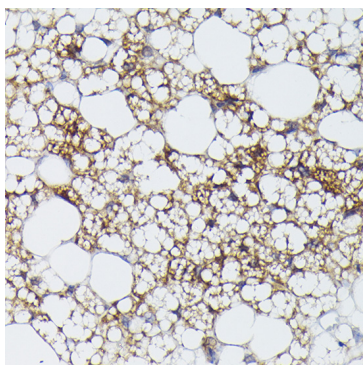
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 180s.



Immunofluorescence analysis of paraffin-embedded rat brown adipose using UCP1 Rabbit pAb (A5857) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunohistochemistry analysis of UCP1 in paraffin-embedded rat brown adipose using UCP1 Rabbit pAb (A5857) at dilution of 1:50 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.