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UCP1 Rabbit pAb

Catalog No.: A5857SP **47 Publications**

Basic Information

Observed MW
33 kDa

Calculated MW
33 kDa

Category
Primary antibody

Applications
WB,IP,IHC-P,ELISA

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
IP	0.5 μg - 4 μg antibody for 200 μg - 400 μg extracts of whole cells
IHC-P	1:200 - 1:800
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.For high-ratio antibody dilutions (≥1:10000)，a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
7350/22227

Swiss Prot
P25874/P12242

Immunogen
This information is considered to be commercially sensitive.

Synonyms
UCP; SLC25A7; UCP1

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS, pH 7.3, containing 50% glycerol. Preserved with Proclin300 or sodium azide.
May contain 0.05% BSA as specified on the Certificate of Analysis.

Contact

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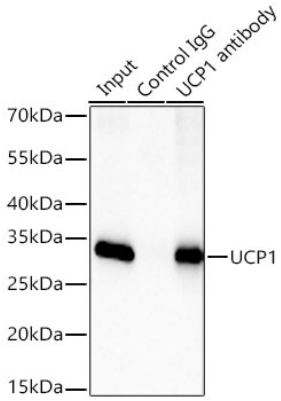
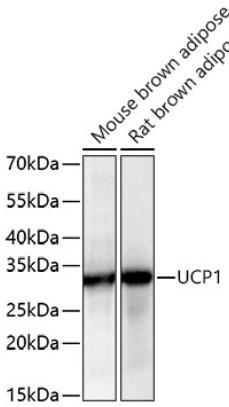
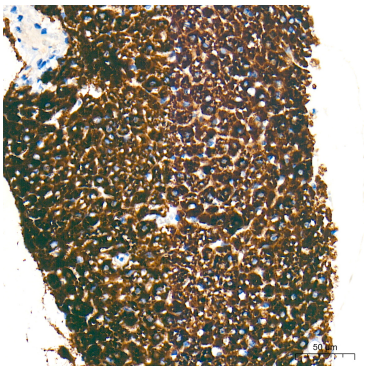
Validation Data



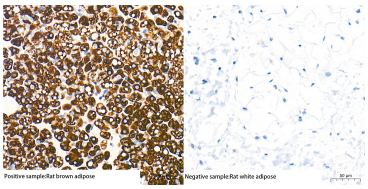
Immunoprecipitation of UCP1 from 300 µg extracts of Mouse brown adipose tissue was performed using 1 µg of UCP1 Rabbit pAb (A5857SP).Rabbit Control IgG (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1x reducing Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using UCP1 Rabbit pAb (A5857SP) at a dilution of 1:5000.



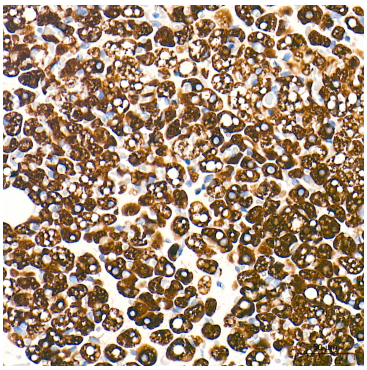
Western blot analysis of various lysates using UCP1 Rabbit pAb (A5857SP) at 1:3000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 1 s.



Immunohistochemistry analysis of paraffin-embedded Mouse brown adipose tissue using UCP1 Rabbit pAb (A5857SP) at a dilution of 1:400 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat brown adipose tissue (left, Positive control) and Rat white adipose tissue (right, Negative control), using UCP1 Rabbit pAb (A5857SP) at a dilution of 1:400 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat brown adipose tissue using UCP1 Rabbit pAb (A5857SP) at a dilution of 1:400 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.