Anti-UCP1 Antibody HA500118



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 33 kDa
Description:	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.
lmmunogen:	Synthetic peptide within human UCP1 aa 233-266.
Positive control:	MCF7 cell lysate, NIH/3T3 cell lysate, L6 cell lysate, human fetal skeletal muscle tissue, mouse skeletal muscle tissue, rat heart tissue.
Subcellular location:	Mitochondrion inner membrane.
Database links:	SwissProt: P25874 Human P12242 Mouse P04633 Rat
Recommended Dilutions: WB IHC-P	1:1,000-1:2,000 1:100-1:500
Storage Buffer:	1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4 $^\circ\!{\rm C}$. Store at +4 $^\circ\!{\rm C}$ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20 $^\circ\!{\rm C}$ long term.
Purity:	Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of UCP1 on different lysates with Rabbit anti-UCP1 antibody (HA500118) at 1/1,000 dilution.

Lane 1: MCF7 cell lysate Lane 2: NIH/3T3 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 33 kDa Observed band size: 33 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500118) at 1/1,000 dilution was used in 5% NFDM/TBST at 4° C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of UCP1 on different lysates with Rabbit anti-UCP1 antibody (HA500118) at 1/2,000 dilution.

Lane 1: NIH/3T3 cell lysate Lane 2: L6 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 33 kDa Observed band size: 33 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500118) at 1/2,000 dilution was used in 5% NFDM/TBST at 4° C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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250-150-100-75-55-45-35-25-14-GAPDH

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Chouchani ET. et. al. New Advances in Adaptive Thermogenesis: UCP1 and Beyond. Cell Metab. 2019 Jan
- Chang SH. et. al. Mechanisms underlying UCP1 dependent and independent adipocyte thermogenesis. Obes Rev. 2019 Feb

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