UCP1+UCP3 Rabbit mAb

Catalog No.: A19526 Recombinant



Basic Information

Observed MW

30kDa

Calculated MW

34kDa

Category

Primary antibody

Applications

ELISA,WB,IHC-P,IF/ICC

Cross-Reactivity

Mouse, Rat

CloneNo number

ARC2304

Background

Mitochondrial protein responsible for thermogenic respiration, a specialized capacity of brown adipose tissue and beige fat that participates in non-shivering adaptive thermogenesis to temperature and diet variations and more generally to the regulation of energy balance. Functions as a long-chain fatty acid/LCFA and proton symporter, simultaneously transporting one LCFA and one proton through the inner mitochondrial membrane. However, LCFAs remaining associated with the transporter via their hydrophobic tails, it results in an apparent transport of protons activated by LCFAs. Thereby, dissipates the mitochondrial proton gradient and converts the energy of substrate oxydation into heat instead of ATP. Regulates the production of reactive oxygen species/ROS by mitochondria.

Recommended Dilutions

WB	1:500 - 1:2000	
IHC-P	1:50 - 1:200	
IF/ICC	1:50 - 1:200	

Immunogen Information

Gene ID	Swiss Prot
22227/22229	P12242/P56501

Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 1-307 of mouse UCP1+UCP3 (P12242).

Synonyms

Al385626; Slc25a7; Ucp; UCP1+UCP3

Contact

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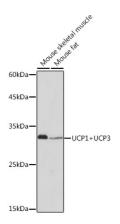
Product Information

Source	Isotype	Purification
Rabbit	IgG	Affinity purification

Storage

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

Buffer: PBS with 0.02% sodium azide, 0.05% BSA, 50% glycerol, pH7.3.



Western blot analysis of extracts of various cell lines, using UCP1+UCP3 Rabbit mAb (A19526) at 1:1000 dilution

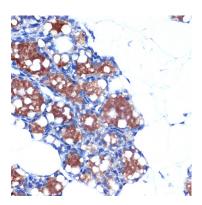
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25µg per lane.

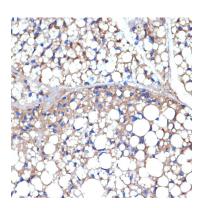
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

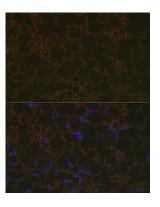
Exposure time: 180s.



Immunohistochemistry analysis of paraffinembedded rat brown adipose using UCP1+UCP3 Rabbit mAb (A19526) at dilution of 1:100 (40x lens).Perform microwave antigen retrieval with 10 mM Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry analysis of paraffinembedded mouse brown adipose using UCP1+UCP3 Rabbit mAb (A19526) at dilution of 1:100 (40x lens).Perform microwave antigen retrieval with 10 mM Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunofluorescence analysis of rat brown adipose cells using UCP1+UCP3 Rabbit mAb (A19526) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.