

**UCP1 / UCP-1 Antibody (C-Terminus)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS16051****Specification**

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**UCP1 / UCP-1 Antibody (C-Terminus) - Product Information**

Application	WB
Primary Accession	<a href="#">P25874</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33kDa KDa

**UCP1 / UCP-1 Antibody (C-Terminus) - Additional Information****Gene ID** 7350**Other Names**

Mitochondrial brown fat uncoupling protein 1, UCP 1, Solute carrier family 25 member 7, Thermogenin, UCP1, SLC25A7, UCP

**Target/Specificity**

UCP1 antibody is human, mouse and rat reactive.

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions**

UCP1 / UCP-1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

**UCP1 / UCP-1 Antibody (C-Terminus) - Protein Information****Name** UCP1 ([HGNC:12517](#))**Function**

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 (By similarity). Functions as a long-chain fatty acid/LCFA and proton symporter, simultaneously transporting one LCFA and one proton through the inner mitochondrial membrane (PubMed:<a href="http://www.uniprot.org/citations/24196960" target="\_blank">24196960</a>, PubMed:<a href="http://www.uniprot.org/citations/28781081" target="\_blank">28781081</a>). 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 (By similarity).

**Cellular Location**

Mitochondrion inner membrane {ECO:0000250|UniProtKB:P12242}; Multi-pass membrane protein

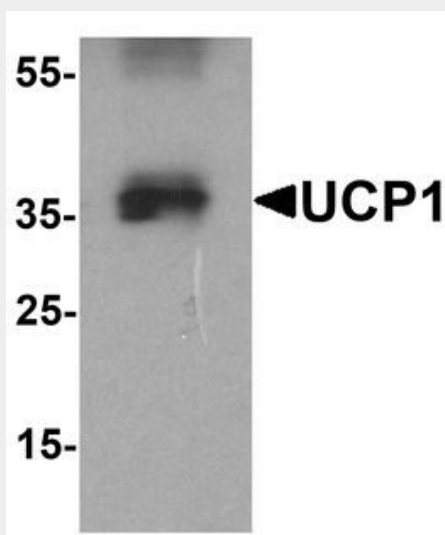
**Tissue Location**

Brown adipose tissue..

**UCP1 / UCP-1 Antibody (C-Terminus) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**UCP1 / UCP-1 Antibody (C-Terminus) - Images**

Western blot analysis of UCP1 in HeLa cell lysate with UCP1 antibody at 1 ug/ml.

**UCP1 / UCP-1 Antibody (C-Terminus) - Background**

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.

**UCP1 / UCP-1 Antibody (C-Terminus) - References**

Cassard A.M.,et al.J. Cell. Biochem. 43:255-264(1990).  
Bouillaud F.,et al.Submitted (JUL-1995) to the EMBL/GenBank/DDBJ databases.  
Bouillaud F.,et al.Submitted (JUL-1995) to the EMBL/GenBank/DDBJ databases.  
Hillier L.W.,et al.Nature 434:724-731(2005).  
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