

## ARG42005 anti-UCP1 antibody

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes UCP1
Tested Reactivity	Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	UCP1
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 1-307 of Human UCP1 (NP_068605.1).
Conjugation	Un-conjugated
Alternate Names	UCP; SLC25A7; Thermogenin; Mitochondrial brown fat uncoupling protein 1; Solute carrier family 25 member 7; UCP 1

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat lung	
Observed Size	~ 32 kDa	

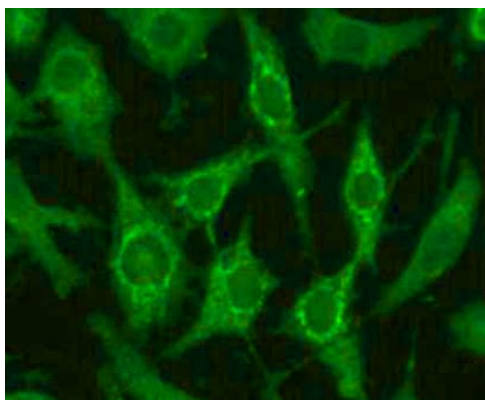
### Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

## Bioinformation

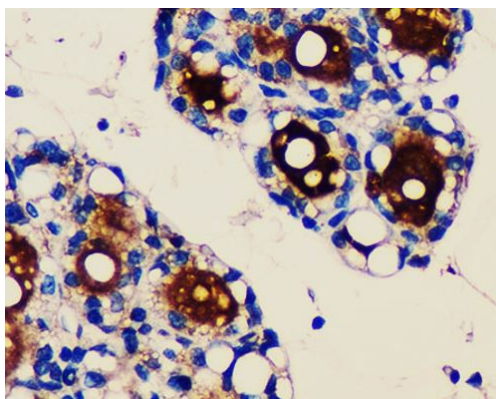
Gene Symbol	UCP1
Gene Full Name	uncoupling protein 1 (mitochondrial, proton carrier)
Background	Mitochondrial uncoupling proteins (UCP) are members of the family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, 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 <sup>+</sup> /OH <sup>-</sup> 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. [provided by RefSeq, Jul 2008]
Function	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. [UniProt]
Calculated Mw	33 kDa
PTM	May undergo sulfenylation upon cold exposure. May increase the sensitivity of UCP1 thermogenic function to the activation by noradrenaline probably through structural effects.  May undergo ubiquitin-mediated proteasomal degradation. [UniProt]
Cellular Localization	Mitochondrion inner membrane; Multi-pass membrane protein. [UniProt]

## Images



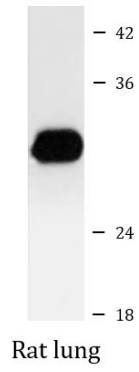
ARG42005 anti-UCP1 antibody ICC/IF image

Immunofluorescence: L929 cells stained with ARG42005 anti-UCP1 antibody at 1:100 dilution.



ARG42005 anti-UCP1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat fat tissue stained with ARG42005 anti-UCP1 antibody at 1:100 dilution.



#### ARG42005 anti-UCP1 antibody WB image

Western blot: 25 µg of Rat lung lysate stained with ARG42005 anti-UCP1 antibody at 1:1000 dilution.