


## Product datasheet

### Anti-UCP1 antibody ab10983

★★★★☆ [23 Abreviews](#) [722 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-UCP1 antibody
<b>Description</b>	Rabbit polyclonal to UCP1
<b>Host species</b>	Rabbit
<b>Specificity</b>	This polyclonal antibody does not undergo batch testing for mouse western blot, and we cannot therefore guarantee this reagent for this species/application. For an alternative product please see <a href="#">ab209483</a> which is guaranteed for mouse western blot.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat <b>Predicted to work with:</b> Sheep, Rabbit, Cow, Dog, Human, Macaque monkey 
<b>Immunogen</b>	Synthetic peptide corresponding to Human UCP1 aa 145-159 conjugated to keyhole limpet haemocyanin (Cysteine residue).
<b>Positive control</b>	IHC-P: Murine inguinal white adipose tissue. WB: Rat brown fat lysate.
<b>General notes</b>	<p>Storage in frost-free freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.097% Sodium azide Constituents: PBS, 0.1% BSA
<b>Purity</b>	Immunogen affinity purified

<b>Purification notes</b>	ab10983 is affinity purified using the immunogenic peptide immobilized on agarose.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab10983 in the following tested applications.

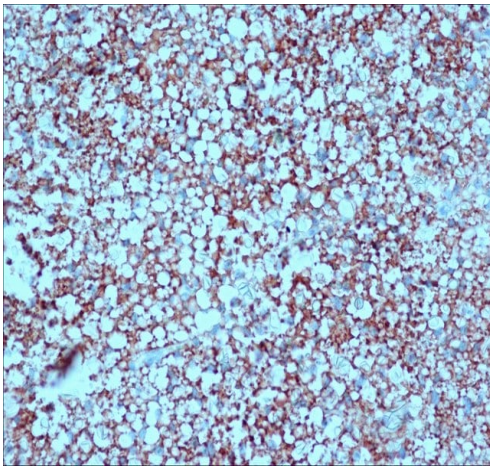
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>	★★★★★ (11)	1/1000. Detects a band of approximately 32 kDa. Use at a minimum dilution of 1/1000 in extract of rat brown adipose tissue (BAT) mitochondria or an extract of E.coli expressing recombinant mouse UCP1. Additional weak bands may be detected in some preparations of BAT extracts. Staining of the UCP1 band is specifically inhibited with the immunizing peptide. This antibody may not be suitable for Western blot in Human
<b>IHC-P</b>	★★★★★ (8)	1/500. This concentration is determined by indirect immunoperoxidase staining of protease digested, formalin-fixed, paraffin-embedded sections of mouse brown adipose tissue.

## Target

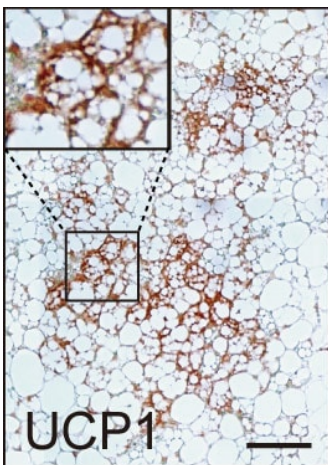
<b>Function</b>	UCP are mitochondrial transporter proteins that create proton leaks across the inner mitochondrial membrane, thus uncoupling oxidative phosphorylation from ATP synthesis. As a result, energy is dissipated in the form of heat.
<b>Tissue specificity</b>	Brown adipose tissue.
<b>Sequence similarities</b>	Belongs to the mitochondrial carrier family. Contains 3 Solcar repeats.
<b>Cellular localization</b>	Mitochondrion inner membrane.
<b>Form</b>	UCP1 is preferentially expressed in brown adipose tissue

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UCP1 antibody (ab10983)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded mouse brown adipose tissue staining UCP1 using ab10983 at 1/500 dilution. Detected using an Anti-Rabbit IgG-biotin conjugate and an Avidin-Peroxidase conjugate.

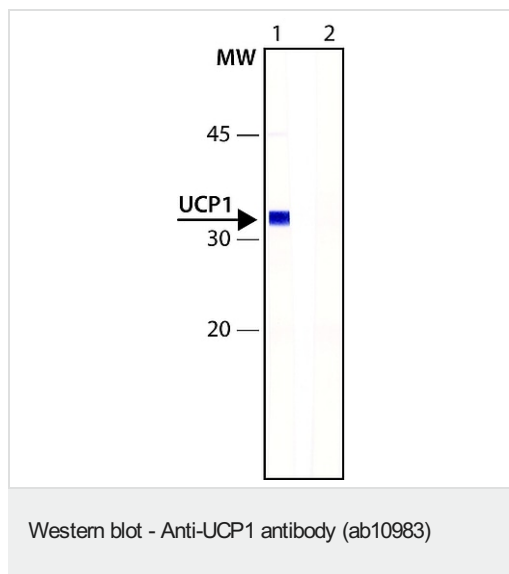


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UCP1 antibody (ab10983)

Image from Mori Met et al., PLoS Biol. 2012;10(4):e1001314. Epub 2012 Apr 24. Fig 5.; doi:10.1371/journal.pbio.1001314; April 24, 2012, PLoS Biol 10(4): e1001314.

ab10983, staining UCP1, in murine inguinal white adipose tissue, by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).

Tissue was incubated with primary antibody at 1/1000 dilution and staining was detected using an HRP/DAB detection kit. Sections were counterstained using hematoxylin.



**All lanes :** Anti-UCP1 antibody (ab10983) at 1 µg/ml

**Lane 1 :** Rat brown fat

**Lane 2 :** Rat brown fat with UCP1 immunizing peptide (human, 145-159)

#### **Secondary**

**All lanes :** Goat Anti-Rabbit IgG-Alkaline Phosphatase and a colorimetric substrate

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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