abcam

Product datasheet

Anti-UCP1 antibody [EPR20381] - BSA and Azide free ab222397

Recombinant RabMAb

6 Images

Overview

Product name	Anti-UCP1 antibody [EPR20381] - BSA and Azide free
Description	Rabbit monoclonal [EPR20381] to UCP1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse and rat brown adipose tissue lysates. IHC-P: Mouse and rat brown adipose tissue. IP: Rat brown adipose tissue lysate.
General notes	ab222397 is the carrier-free version of **ab209483**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20381
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab222397 in the following tested applications.

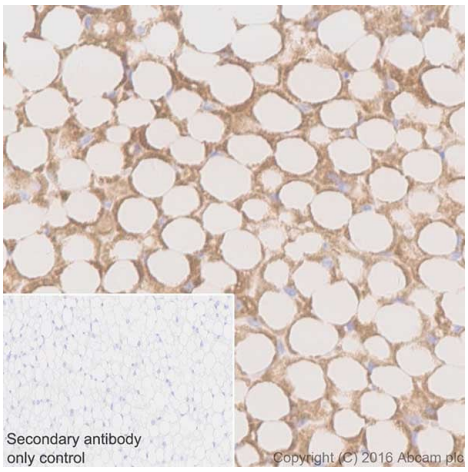
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

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.
Tissue specificity	Brown adipose tissue.
Sequence similarities	Belongs to the mitochondrial carrier family. Contains 3 Solcar repeats.
Cellular localization	Mitochondrion inner membrane.
Form	UCP1 is preferentially expressed in brown adipose tissue

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UCP1 antibody [EPR20381] - BSA and Azide free (ab222397)

Immunohistochemical analysis of paraffin-embedded mouse brown adipose tissue labeling UCP1 with **ab209483** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

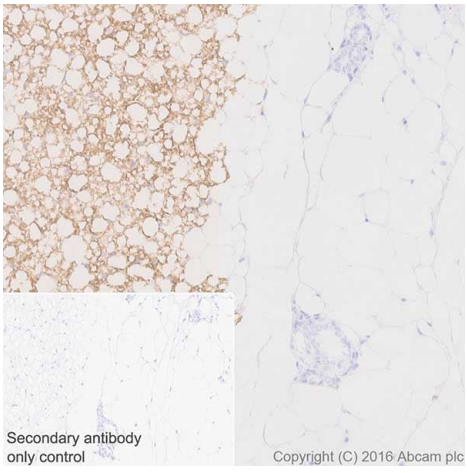
Cytoplasmic staining on mouse brown adipose tissue is observed [PMID: 24753268] [PMID: 23824424].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209483**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UCP1 antibody [EPR20381] - BSA and Azide free (ab222397)

Immunohistochemical analysis of paraffin-embedded mouse brown adipose tissue and white adipose tissue labeling UCP1 with **ab209483** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Cytoplasmic staining on mouse brown adipose tissue, no staining on adjacent white adipose tissue [PMID: 24753268] [PMID: 23824424].

Counter stained with Hematoxylin.

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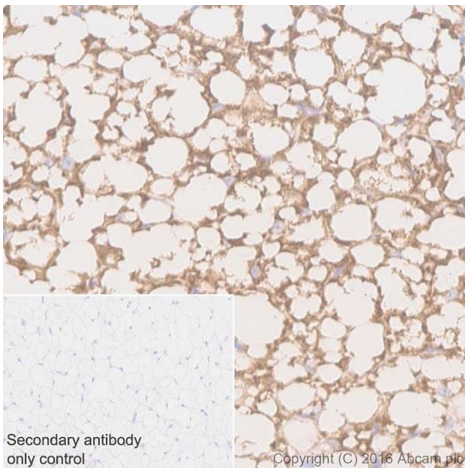

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UCP1 antibody [EPR20381] - BSA and Azide free (ab222397)

Immunohistochemical analysis of paraffin-embedded rat brown adipose tissue labeling UCP1 with **ab209483** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Cytoplasmic staining on rat brown adipose tissue is observed [PMID: 24753268] [PMID: 23824424].

Counter stained with Hematoxylin.

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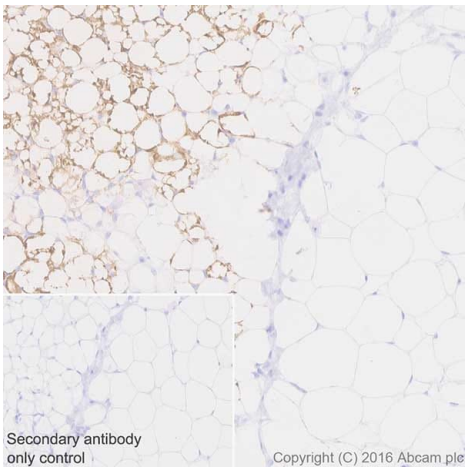

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UCP1 antibody [EPR20381] - BSA and Azide free (ab222397)

Immunohistochemical analysis of paraffin-embedded rat brown adipose tissue and white adipose tissue labeling UCP1 with **ab209483** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

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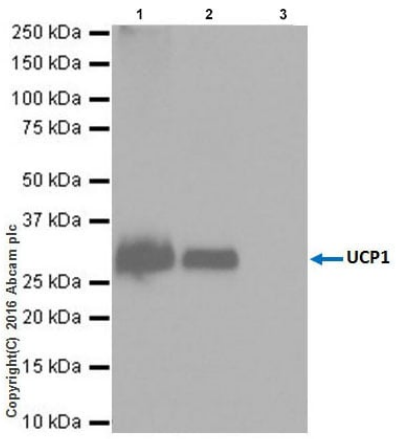

Immunoprecipitation - Anti-UCP1 antibody [EPR20381] - BSA and Azide free (ab222397)

UCP1 was immunoprecipitated from 0.35 mg of rat brown adipose lysate with **ab209483** at 1/30 dilution.

Western blot was performed from the immunoprecipitate using **ab209483** at 1/5000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: Rat brown adipose lysate, 10 ug (Input).

Lane 2: **ab209483** IP in rat brown adipose lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab209483** in rat brown adipose lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 5 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209483**).

Anti-UCP1 antibody [EPR20381] - BSA and Azide free (ab222397)

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