

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 within Mouse UCP1 aa 100-200. The exact sequence is proprietary. Database link: P12242
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	<p>Ab222397 is the carrier-free version of ab209483. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.</p> <p>Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.</p> <p>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.</p> <p>ab222397 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. <i>Maxpar® is a trademark of Fluidigm Canada Inc.</i></p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™</p>

guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

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

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.

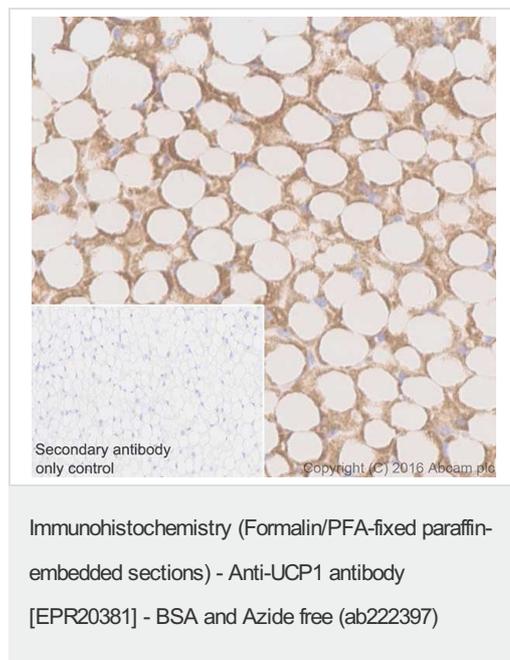
Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer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



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.

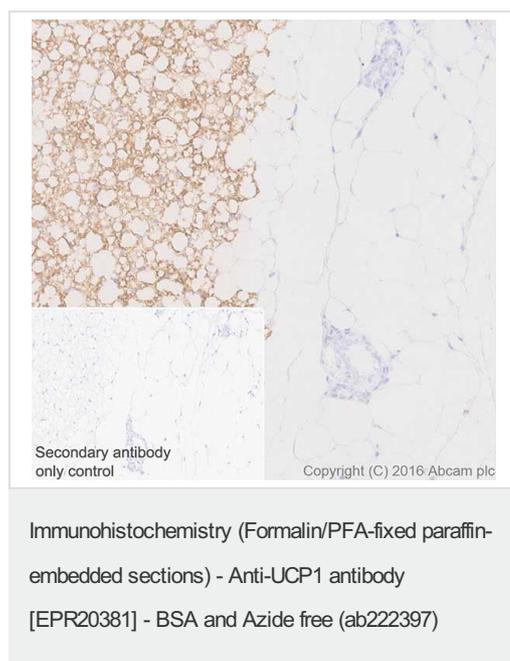
Cytoplasmic staining on mouse brown adipose tissue is observed [PMID: 24753268] [PMID: 23824424].

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.



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.

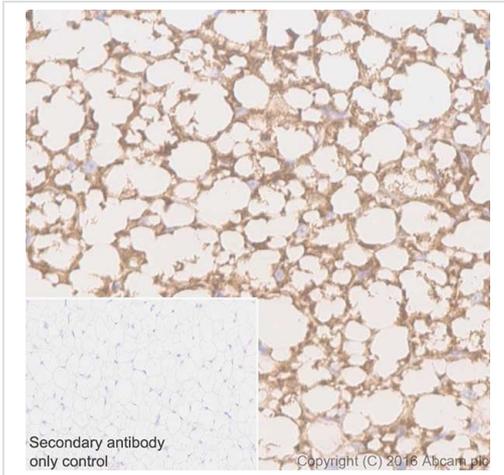
Cytoplasmic staining on mouse brown adipose tissue, no staining on adjacent white adipose tissue [PMID: 24753268] [PMID: 23824424].

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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.

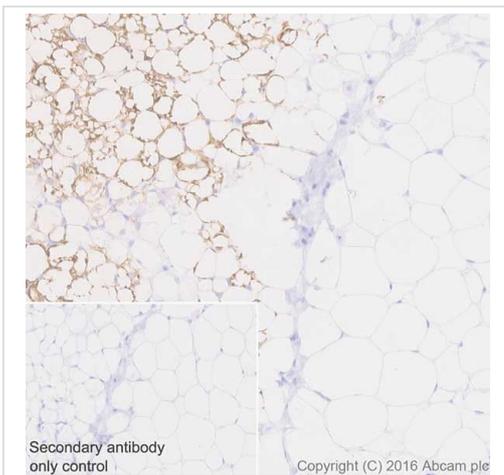
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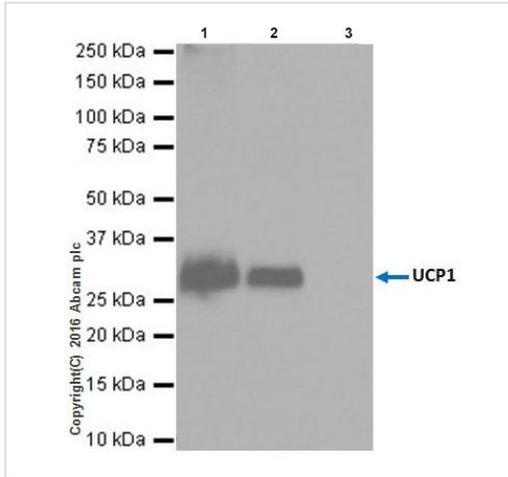
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Immunoprecipitation - Anti-UCP1 antibody
[EPR20381] - BSA and Azide free (ab222397)

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](#)).

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

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

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

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