


Product datasheet

Anti-ATP5A antibody ab245580

4 Images

Overview

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<b>Product name</b>	Anti-ATP5A antibody
<b>Description</b>	Rabbit polyclonal to ATP5A
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat, Cow, Pig, Chimpanzee, Drosophila melanogaster, Orangutan 
<b>Immunogen</b>	Synthetic peptide within Human ATP5A aa 100-150. The exact sequence is proprietary. Database link: <a href="#">P25705</a>
<b>Positive control</b>	WB: HeLa, HEK-293T, Jurkat, TCMK-1 and NIH/3T3 whole cell lysate. IP: HEK-293T whole cell lysate. IHC-P: Human prostate carcinoma and mouse renal cell carcinoma tissue.
<b>General notes</b>	<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 &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; 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.</p> <p>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&amp;As.</p>

Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7 Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate
<b>Purity</b>	pH 7 to 8 Immunogen affinity purified
<b>Purification notes</b>	ab245580 was affinity purified using an epitope specific to ATP5A immobilized on solid support.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab245580** in the following tested applications.

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

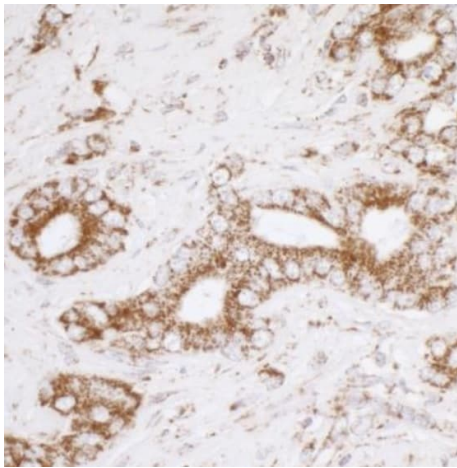
Application	Abreviews	Notes
WB		1/2000 - 1/10000. Predicted molecular weight: 60 kDa.
IP		Use at 2-10 µg/mg of lysate.
IHC-P		1/2000 - 1/10000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

<b>Function</b>	Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F(1). Rotation of the central stalk against the surrounding alpha(3)beta(3) subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites.
<b>Tissue specificity</b>	Fetal lung, heart, liver, gut and kidney. Expressed at higher levels in the fetal brain, retina and spinal cord.
<b>Sequence similarities</b>	Belongs to the ATPase alpha/beta chains family.
<b>Post-translational modifications</b>	The N-terminus is blocked.
<b>Cellular localization</b>	Mitochondrion inner membrane. Peripheral membrane protein.

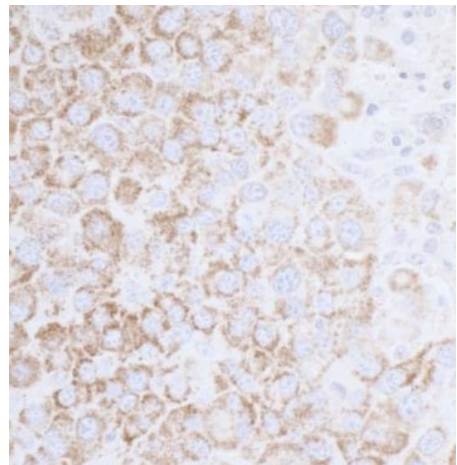
## Images

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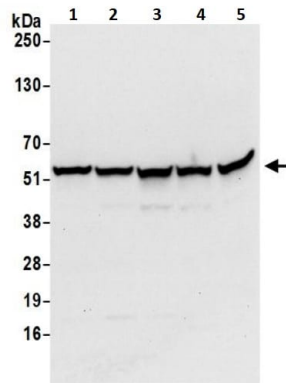
Formalin-fixed, paraffin-embedded human prostate carcinoma tissue stained for ATP5A with ab245580 at a 1/5000 dilution in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATP5A antibody (ab245580)



Formalin-fixed, paraffin-embedded mouse renal cell carcinoma tissue stained for ATP5A with ab245580 at a 1/5000 dilution in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATP5A antibody (ab245580)



Western blot - Anti-ATP5A antibody (ab245580)

**All lanes :** Anti-ATP5A antibody (ab245580) at 0.1  $\mu\text{g/ml}$

**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2 :** HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

**Lane 3 :** Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

**Lane 4 :** TCMK-1 (Mouse kidney epithelial cell line) whole cell lysate

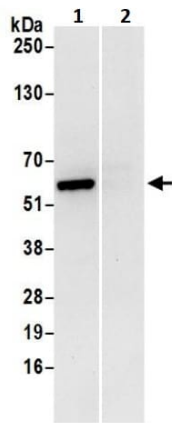
**Lane 5 :** NIH/3T3 (Mouse embryo fibroblast cell line) whole cell lysate

Lysates/proteins at 50  $\mu\text{g}$  per lane.

**Predicted band size:** 60 kDa

**Exposure time:** 10 seconds

Prepared using NETN lysis buffer.



Immunoprecipitation - Anti-ATP5A antibody  
(ab245580)

ATP5A was immunoprecipitated from HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate (1 mg per IP reaction; 20% of IP loaded) prepared using NETN lysis buffer.

ab245580 used for IP at 6 µg per reaction. For WB 0.4 µg/ml.

**Lane 1:** ab245580 IP in HEK-293T whole cell lysate.

**Lane 2:** Control IgG IP in HEK-293T whole cell lysate.

Chemiluminescence detection: 10 seconds.

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

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