

Product datasheet

Anti-Beclin 1 antibody [EPR20473] ab210498

Recombinant **RabMAb**

[105 References](#) [10 Images](#)

Overview

Product name	Anti-Beclin 1 antibody [EPR20473]
Description	Rabbit monoclonal [EPR20473] to Beclin 1
Host species	Rabbit
Specificity	We don't recommend this antibody for mouse and rat in IHC. In our hands most mouse and rat tissues showed nuclear staining.
Tested applications	Suitable for: IP, IHC-P, WB Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HepG2, HEK-293, T-47D, Raji, RAW 264.7, NIH/3T3, A20 and C2C12 whole cell lysates; Human fetal brain and colon lysates; Mouse brain and spleen lysates; Rat brain, kidney and spleen lysates. IHC-P: Human kidney and breast cancer tissues. IP: HepG2 whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</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>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR20473
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab210498 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

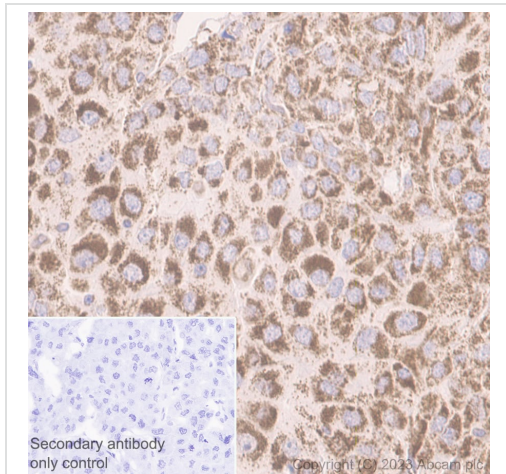
Application	Abreviews	Notes
IP		1/30.
IHC-P		1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 52 kDa (predicted molecular weight: 52 kDa).

Application notes Is unsuitable for Flow Cyt.

Target

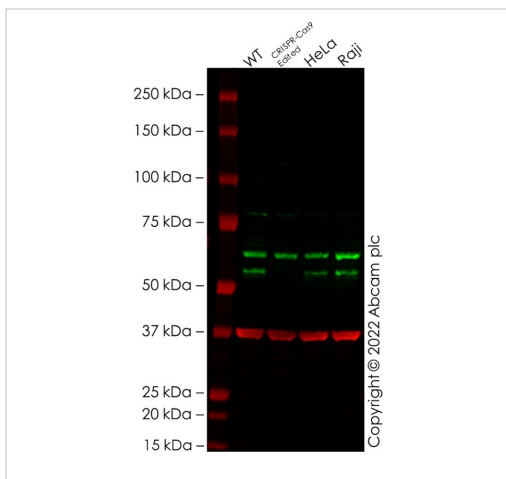
Function	Plays a central role in autophagy (By similarity). May play a role in antiviral host defense. Protects against infection by a neurovirulent strain of Sindbis virus.
Tissue specificity	Ubiquitous.
Sequence similarities	Belongs to the beclin family.
Cellular localization	Golgi apparatus > trans-Golgi network membrane. Interaction with ATG14 promotes translocation to autophagosomes. Expressed in dendrites and cell bodies of cerebellar Purkinje cells.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Beclin 1 antibody [EPR20473] (ab210498)

Immunohistochemistry analysis of paraffin embedded sections of human hepatocellular carcinoma tissue staining Beclin 1 with ab210498 at 1/100 dilution and ready to use secondary Goat Anti-Rabbit IgG H&L (HRP polymer) ([ab214880](#)). Counterstained with hematoxylin. Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Positive staining on human hepatocellular carcinoma. The section was incubated with ab210498 at 4°C overnight.



Western blot - Anti-Beclin 1 antibody [EPR20473] (ab210498)

All lanes : Anti-Beclin 1 antibody [EPR20473] (ab210498) at 1/1000 dilution

Lane 1 : Wild-type Jurkat cell lysate

Lane 2 : BECN1 CRISPR-Cas9 edited Jurkat cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : Raji cell lysate

Lysates/proteins at 20 µg per lane.

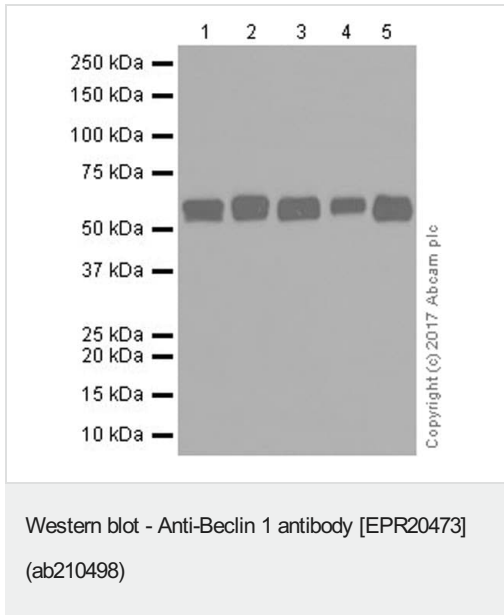
Performed under reducing conditions.

Predicted band size: 52 kDa

Observed band size: 52 kDa

False colour image of Western blot: Anti-Beclin 1 antibody [EPR20473] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab210498 was shown to bind specifically to Beclin 1. A band was observed at 52 kDa in wild-type Jurkat cell lysates with no signal observed at this size in BECN1 CRISPR-Cas9 edited cell line [ab283778](#) (BECN1 CRISPR-Cas9 edited cell lysate [ab283792](#)). The band observed in the CRISPR-Cas9 edited lysate lane above 52 kDa is likely to represent Beclin 1 with an insertion. This has not been investigated further and the functional properties of the gene product have not been determined. To generate this image, wild-type and BECN1

CRISPR-Cas9 edited Jurkat cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween[®] 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



All lanes : Anti-Beclin 1 antibody [EPR20473] (ab210498) at 1/1000 dilution

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

Lane 2 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 3 : HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lane 4 : T-47D (Human ductal breast epithelial tumor cell line) whole cell lysate

Lane 5 : Raji (Human Burkitt's lymphoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

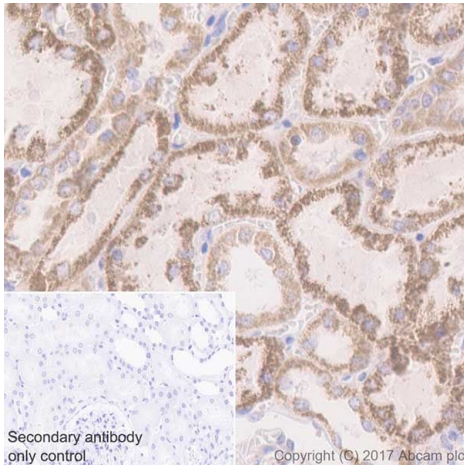
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 52 kDa

Observed band size: 52 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Beclin 1 antibody [EPR20473] (ab210498)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Beclin 1 with ab210498 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

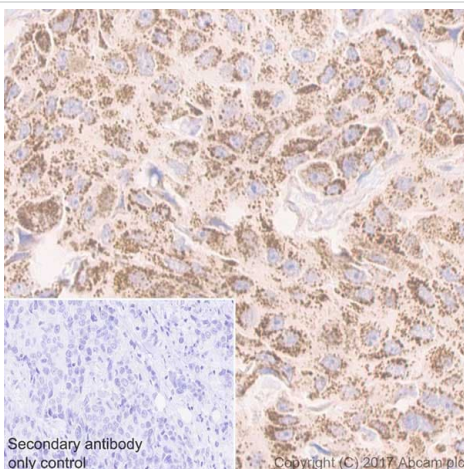
Granularly cytoplasmic staining on human kidney is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

We don't recommend this antibody for mouse and rat in IHC. In our hands most mouse and rat tissues showed nuclear staining.

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-Beclin 1 antibody [EPR20473] (ab210498)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling Beclin 1 with ab210498 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

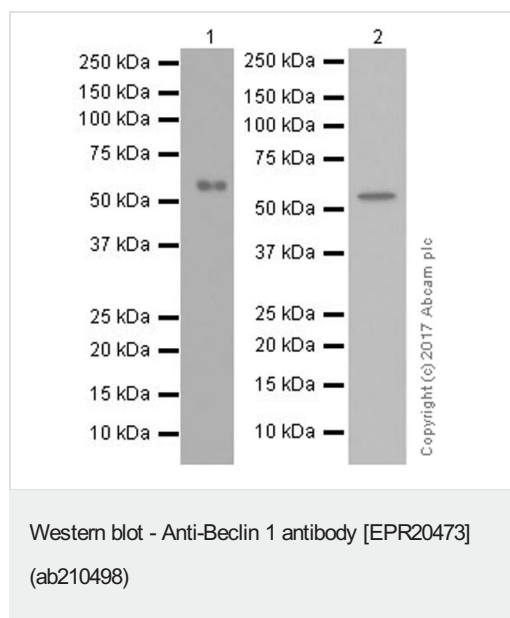
Granularly cytoplasmic staining on tumor cells of human breast cancer is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

We don't recommend this antibody for mouse and rat in IHC. In our hands most mouse and rat tissues showed nuclear staining.

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



All lanes : Anti-Beclin 1 antibody [EPR20473] (ab210498) at 1/1000 dilution

Lane 1 : Human fetal brain lysate

Lane 2 : Human colon lysate

Lysates/proteins at 10 µg per lane.

Secondary

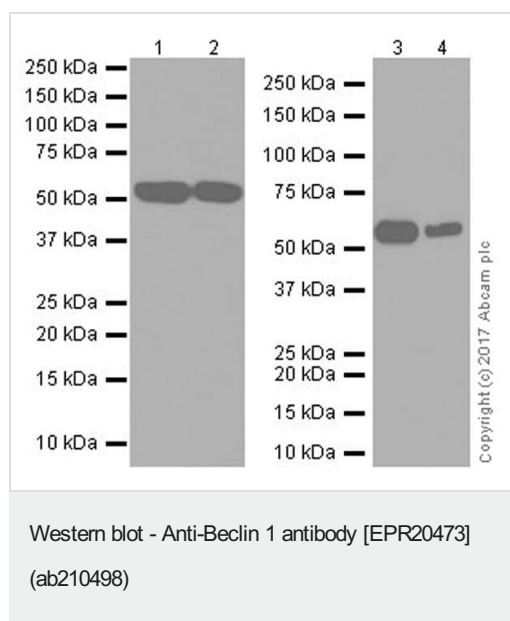
All lanes : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/4000 dilution

Predicted band size: 52 kDa

Observed band size: 52 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-Beclin 1 antibody [EPR20473] (ab210498) at 1/1000 dilution

Lane 1 : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Lane 2 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate at 10 µg

Lane 3 : A20 (Mouse reticulum sarcoma cell line) whole cell lysate at 10 µg

Lane 4 : C2C12 (Mouse myoblast cell line) whole cell lysate

Secondary

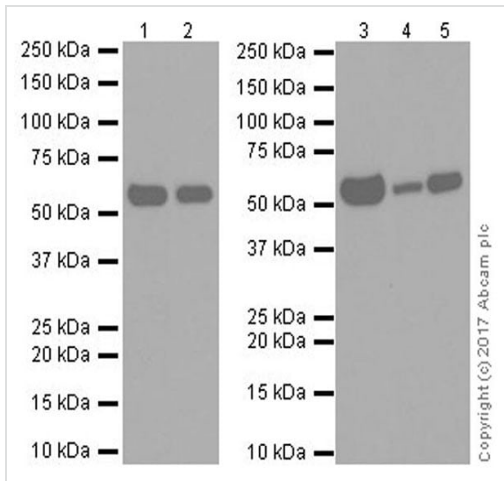
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 52 kDa

Observed band size: 52 kDa

Exposure time: 1 minute

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Beclin 1 antibody [EPR20473] (ab210498)

All lanes : Anti-Beclin 1 antibody [EPR20473] (ab210498) at 1/1000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : Mouse spleen lysate

Lane 3 : Rat brain lysate

Lane 4 : Rat kidney lysate

Lane 5 : Rat spleen lysate

Lysates/proteins at 10 µg per lane.

Secondary

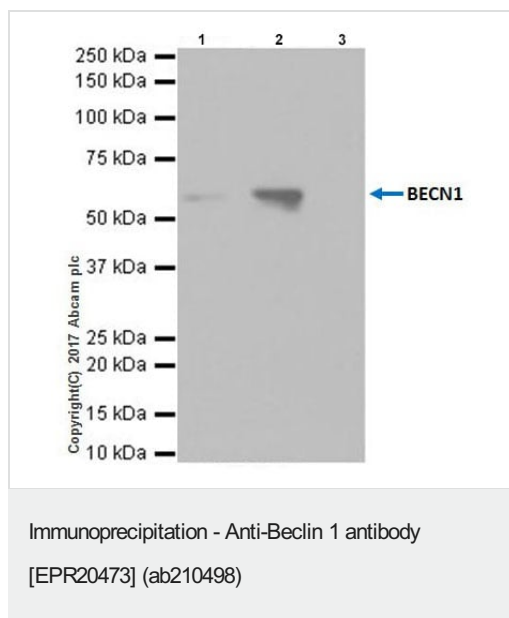
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 52 kDa

Observed band size: 52 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Beclin 1 was immunoprecipitated from 0.35 mg of HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate with ab210498 at 1/30 dilution.

Western blot was performed from the immunoprecipitate using ab210498 at 1/1000 dilution.

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

Lane 1: HepG2 whole cell lysate, 10 µg (Input).





Lane 2: ab210498 IP in HepG2 whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab210498 in HepG2 whole cell lysate.

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

Exposure time: 30 seconds.

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-Beclin 1 antibody [EPR20473] (ab210498)

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