

## Product datasheet

# Anti-APG5L/ATG5 antibody ab228668

12 References 5 Images

### Overview

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<b>Product name</b>	Anti-APG5L/ATG5 antibody
<b>Description</b>	Rabbit polyclonal to APG5L/ATG5
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Cow, Pig 
<b>Immunogen</b>	Recombinant fragment within Human APG5L/ATG5 (internal sequence). The exact sequence is proprietary. Database link: <a href="#">Q9H1Y0</a>
<b>Positive control</b>	ICC/IF HeLa cells and thapsigargin- or chloroquine-treated HepG2 cells. IHC-P: Mouse brain tissue. WB: NT2/D1 and PC-3 whole cell lysate; HeLa cell extract.
<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

## Properties

<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: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab228668** 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		1/500 - 1/3000. Predicted molecular weight: 32 kDa.
IHC-P		1/100 - 1/1000.
ICC/IF		1/100 - 1/1000.

## Target

<b>Function</b>	<p>Involved in autophagic vesicle formation. Conjugation with ATG12, through a ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. The ATG12-ATG5 conjugate also negatively regulates the innate antiviral immune response by blocking the type I IFN production pathway through direct association with RARRES3 and MAVS. Also plays a role in translation or delivery of incoming viral RNA to the translation apparatus. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures, as well as in normal adipocyte differentiation. Promotes primary ciliogenesis through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway.</p> <p>May play an important role in the apoptotic process, possibly within the modified cytoskeleton. Its expression is a relatively late event in the apoptotic process, occurring downstream of caspase activity. Plays a crucial role in IFN-gamma-induced autophagic cell death by interacting with FADD.</p>
<b>Tissue specificity</b>	Ubiquitous. The mRNA is present at similar levels in viable and apoptotic cells, whereas the protein is dramatically highly expressed in apoptotic cells.
<b>Sequence similarities</b>	Belongs to the ATG5 family.

## Post-translational modifications

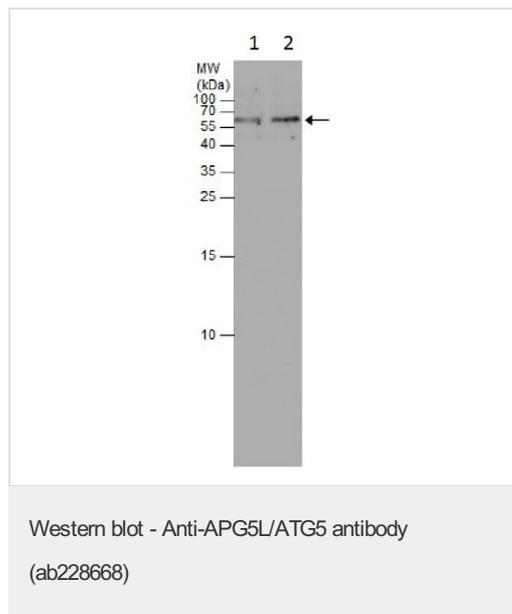
Conjugated to ATG12; which is essential for autophagy, but is not required for association with isolation membrane.

Acetylated by EP300.

## Cellular localization

Cytoplasm. Preautophagosomal structure membrane. Colocalizes with nonmuscle actin. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed (By similarity). Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme.

## Images



**All lanes :** Anti-APG5L/ATG5 antibody (ab228668) at 1/1000 dilution

**Lane 1 :** Untreated HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extracts

**Lane 2 :** HeLa (human epithelial cell line from cervix adenocarcinoma) treated with 50  $\mu$ M chloroquine for 24 hours, whole cell extracts

Lysates/proteins at 30  $\mu$ g per lane.

### Secondary

**All lanes :** HRP-conjugated anti-rabbit IgG

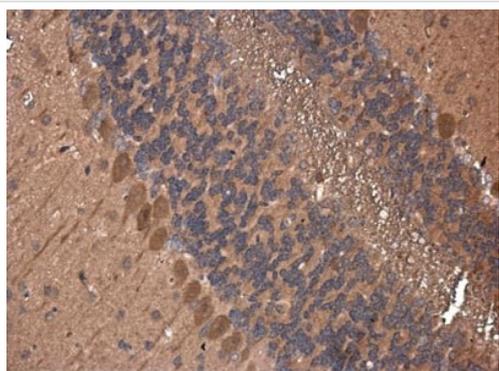
Developed using the ECL technique.

**Predicted band size:** 32 kDa

15% SDS-PAGE

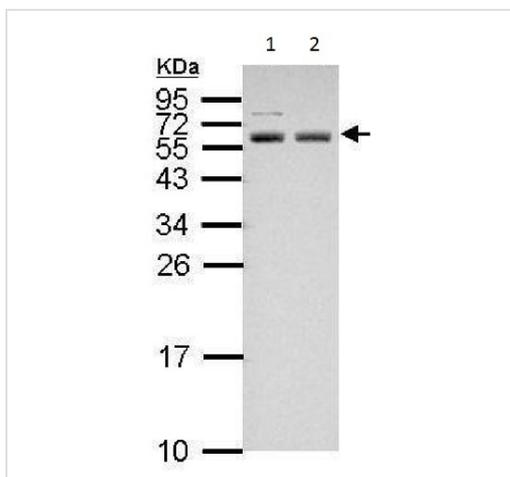


HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for APG5L/ATG5 (green) using ab228668 (1/1000 dilution) in ICC/IF. Cells mock (left panel) and treated with 50  $\mu$ M chloroquine for 24 hours (right panel) were fixed in 4% paraformaldehyde at RT for 15 minutes. Counterstain: Phalloidin, an F-actin marker (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-APG5L/ATG5 antibody (ab228668)

Paraffin-embedded mouse brain tissue stained for APG5L/ATG5 with ab228668 at 1/400 dilution in immunohistochemical analysis.



Western blot - Anti-APG5L/ATG5 antibody (ab228668)

**All lanes :** Anti-APG5L/ATG5 antibody (ab228668) at 1/1000 dilution

**Lane 1 :** NT2/D1 (human embryonal carcinoma cell line) whole cell lysate

**Lane 2 :** PC-3 (human prostate adenocarcinoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

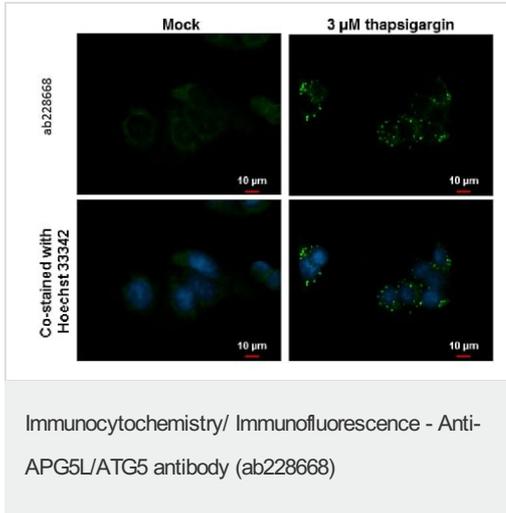
**Secondary**

**All lanes :** HRP-conjugated anti-rabbit IgG

Developed using the ECL technique.

**Predicted band size:** 32 kDa

12% SDS-PAGE



HepG2 (human liver hepatocellular carcinoma cell line) cells stained for APG5L/ATG5 (green) using ab228668 (1/500 dilution) in ICC/IF. Cells were treated with 3  $\mu$ M thapsigargin 16 hours (right panels) and mock (left panels) and were fixed in ice-cold methanol for 10 minutes, permeabilized with cooled acetone for 2 minutes. Nuclear counterstain: Hoechst 33342 (blue).

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

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