

## Product datasheet

### Anti-ATG3 antibody [EPR4802] ab108282


KO VALIDATED

Recombinant

RabMAb

[5 References](#) [4 Images](#)

#### Overview

Product name	Anti-ATG3 antibody [EPR4802]
Description	Rabbit monoclonal [EPR4802] to ATG3
Host species	Rabbit
Tested applications	<b>Suitable for:</b> WB, Flow Cyt (Intra) <b>Unsuitable for:</b> ICC/IF or IHC-P
Species reactivity	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK293T, K562, HeLa or Jurkat cell lysates. Flow Cyt (intra): Permeabilized Jurkat cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR4802

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab108282 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		1/1000 - 1/10000. Detects a band of approximately 40 kDa (predicted molecular weight: 36 kDa).
Flow Cyt (Intra)		1/10 - 1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

### Application notes

Is unsuitable for ICC/IF or IHC-P.

## Target

### Function

E2-like enzyme involved in autophagy and mitochondrial homeostasis. Catalyzes the conjugation of ATG8-like proteins (GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A) to phosphatidylethanolamine (PE). PE-conjugation to ATG8-like proteins is essential for autophagy. Preferred substrate is MAP1LC3A. Also acts as an autocatalytic E2-like enzyme, catalyzing the conjugation of ATG12 to itself, ATG12 conjugation to ATG3 playing a role in mitochondrial homeostasis but not in autophagy. ATG7 (E1-like enzyme) facilitates this reaction by forming an E1-E2 complex with ATG3.

### Tissue specificity

Widely expressed, with a highest expression in heart, skeletal muscle, kidney, liver and placenta.

### Sequence similarities

Belongs to the ATG3 family.

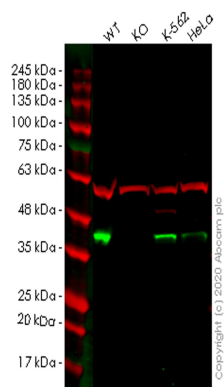
### Post-translational modifications

Conjugated to ATG12 at Lys-243. ATG12-conjugation plays a role in regulation of mitochondrial homeostasis and cell death, while it is not involved in PE-conjugation to ATG8-like proteins and autophagy.

### Cellular localization

Cytoplasm.

## Images



Western blot - Anti-ATG3 antibody [EPR4802]  
(ab108282)

**All lanes** : Anti-ATG3 antibody [EPR4802] (ab108282) at 1/1000 dilution

**Lane 1** : Wild-type HEK293T cell lysate

**Lane 2** : ATG3 knockout HEK293T cell lysate

**Lane 3** : K-562 cell lysate

**Lane 4** : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

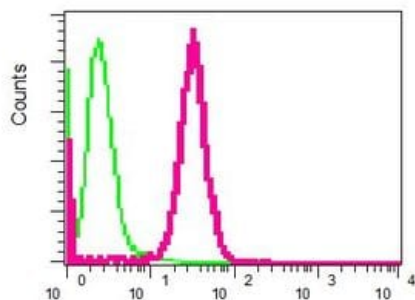
**All lanes** : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

**Predicted band size:** 36 kDa

**Observed band size:** 40 kDa

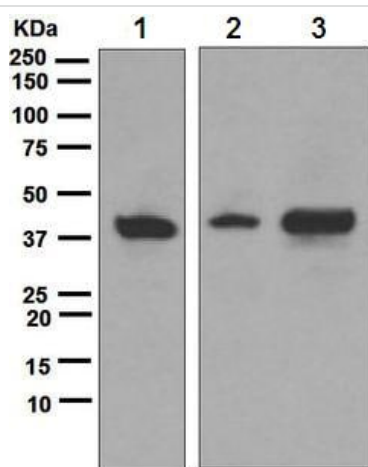
**Lanes 1-4:** Merged signal (red and green). Green - ab108282 observed at 40 kDa. Red - loading control [ab7291](#) observed at 50 kDa.

ab108282 Anti-ATG3 antibody [EPR4802] was shown to specifically react with ATG3 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line [ab266707](#) (knockout cell lysate [ab257363](#)) was used. Wild-type and ATG3 knockout samples were subjected to SDS-PAGE. ab108282 and Anti-alpha Tubulin antibody [DM1A] - Loading Control ([ab7291](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-ATG3 antibody  
[EPR4802] (ab108282)

Intracellular flow cytometric analysis of permeabilized Jurkat cells using ab108282 at 1/10 (red) or a rabbit IgG (negative) (green).



Western blot - Anti-ATG3 antibody [EPR4802]  
(ab108282)

**All lanes** : Anti-ATG3 antibody [EPR4802] (ab108282) at 1/1000 dilution

**Lane 1** : K562 cell lysate

**Lane 2** : HeLa cell lysate

**Lane 3** : Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes** : HRP labelled goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 36 kDa

**Observed band size:** 40 kDa

#### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-ATG3 antibody [EPR4802] (ab108282)

### **Our Abpromise to you: Quality guaranteed and expert technical support**

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- Valid for 12 months from date of delivery
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- We provide support in Chinese, English, French, German, Japanese and Spanish
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