


Product datasheet

Anti-ATG3 antibody [EPR4801] ab108251

KO **VALIDATED** Recombinant **RabMAb**

★★★★☆ **7 Abreviews** **18 References** **6 Images**

Overview

Product name	Anti-ATG3 antibody [EPR4801]
Description	Rabbit monoclonal [EPR4801] to ATG3
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt (Intra), ICC/IF Unsuitable for: IP
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK293T, K562, HL-60, HeLa or Jurkat whole cell lysate (ab7899). IHC-P: Human muscle tissue. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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 For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

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. 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	Protein A purified
Clonality	Monoclonal

Clone number EPR4801
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108251 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	★★★★★ (2)	1/10000 - 1/50000. Detects a band of approximately 40 kDa (predicted molecular weight: 36 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Perform antigen retrieval before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/2000.
ICC/IF	★★★★★ (3)	1/100 - 1/250.

Application notes Is unsuitable for IP.

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.

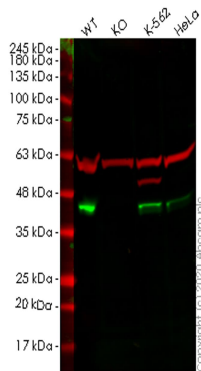
Tissue specificity Widely expressed, with a highest expression in heart, skeletal muscle, kidney, liver and placenta.

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 [EPR4801] (ab108251)

All lanes : Anti-ATG3 antibody [EPR4801] (ab108251) 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

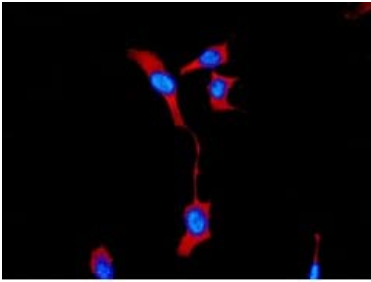
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 36 kDa

Observed band size: 40 kDa

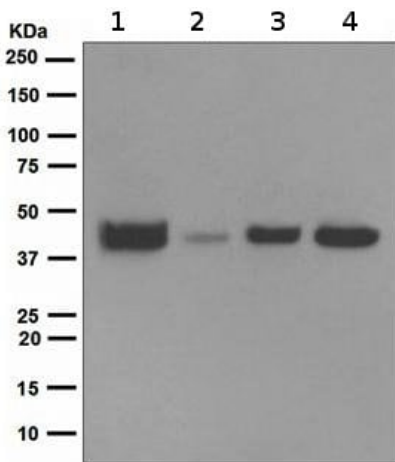
Lanes 1-4: Merged signal (red and green). Green - ab108251 observed at 40 kDa. Red - loading control **ab7291** observed at 50 kDa.

ab108251 Anti-ATG3 antibody [EPR4801] 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. ab108251 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.



Immunocytochemistry/ Immunofluorescence - Anti-ATG3 antibody [EPR4801] (ab108251)

Immunofluorescent staining of HeLa cells using ab108251 at 1/100.



Western blot - Anti-ATG3 antibody [EPR4801] (ab108251)

All lanes : Anti-ATG3 antibody [EPR4801] (ab108251) at 1/10000 dilution

Lane 1 : K562 cell lysate

Lane 2 : HL-60 cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : Jurkat cell lysate

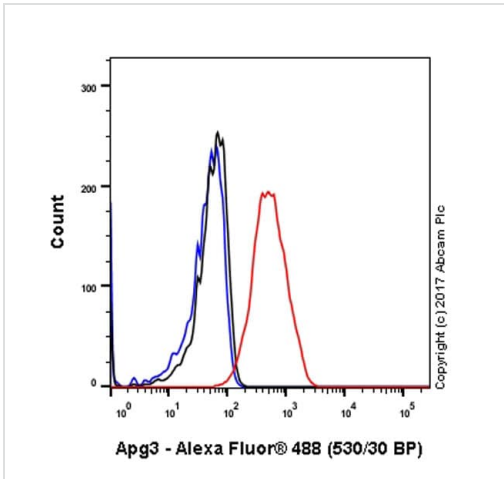
Lysates/proteins at 10 μ g per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit

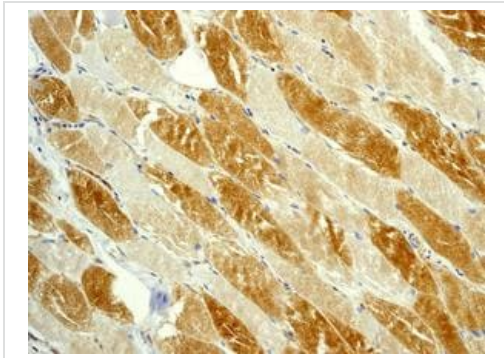
Predicted band size: 36 kDa

Observed band size: 40 kDa



Flow Cytometry (Intracellular) - Anti-ATG3 antibody
[EPR4801] (ab108251)

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling ATG3 (red) with ab108251 at a 1/2000 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (**ab172730**). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATG3 antibody
[EPR4801] (ab108251)

ab108251, at a 1/100 dilution, staining Human ATG3 in muscle, using Immunohistochemistry, Formalin/PFA-fixed paraffin-embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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 [EPR4801] (ab108251)

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

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