# abcam

## Product datasheet

# Anti-ATG3 antibody [EPR4801] ab108251





重组 RabMAb

★★★★★ 7 Abreviews 18 References 6 图像

概述

产品名称 Anti-ATG3抗体[EPR4801]

描述 兔单克隆抗体[EPR4801] to ATG3

宿主 Rabbit

经测试应用 适用于: WB, IHC-P, Flow Cyt (Intra), ICC/IF

不适用于: IP

种属反应性 与反应: Human

预测可用于: Mouse, Rat 📤

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 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.

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- 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**.

性能

形式

存放说明 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.

存储溶液 pH: 7.20

Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue

culture supernatant

纯度 Protein A purified

克隆 单克隆

**克隆编号** EPR4801

同种型 IgG

#### 应用

#### The Abpromise guarantee Abpromise™承诺保证使用ab108251于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	**** <u>(2)</u>	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	<b>★★★★</b> <u>(3)</u>	1/100 - 1/250.

应用说明 Is unsuitable for IP.

#### 靶标

功能 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.

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

序列相似性 Belongs to the ATG3 family.

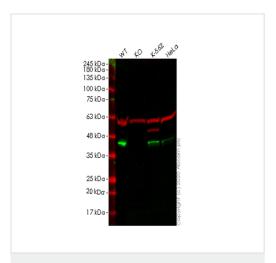
翻译后修饰 Conjugated to ATG12 at Lys-243. ATG12-conjugation plays a role in regulation of mitochondrial

homeostasis and cell death, while it is not involved in PE-conjugation to ATG8-like proteins and

autophagy.

细胞定位 Cytoplasm.

图片



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.

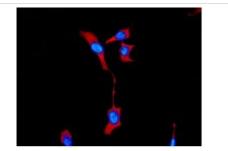
#### Secondary

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

Predicted band size: 36 kDa Observed band size: 40 kDa

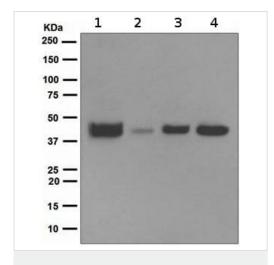
**Lanes 1-4:** Merged signal (red and green). Green - ab108251 observed at 40 kDa. Red - loading control **ab7291** observed at 50 kDa.

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 <a href="mailto:ab266707">ab266707</a> (knockout cell lysate <a href="mailto:ab257363">ab257363</a>) was used. Wild-type and ATG3 knockout samples were subjected to SDS-PAGE. ab108251 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (<a href="mailto:ab7291">ab7291</a>) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit lgG H&L (IRDye® 800CW) preadsorbed (<a href="mailto:ab216773">ab216773</a>) and Goat anti-Mouse lgG H&L (IRDye® 680RD) preadsorbed (<a href="mailto:ab216776">ab216776</a>) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



ATG3 antibody [EPR4801] (ab108251)





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

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

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

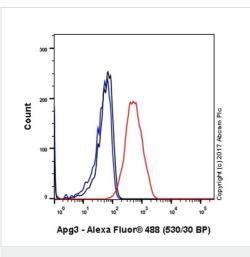
Lane 1: K562 cell lysate Lane 2: HL-60 cell lysate Lane 3: HeLa cell lysate Lane 4: Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

## Secondary

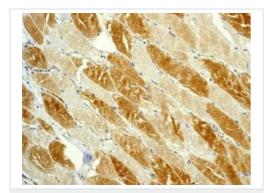
All lanes: HRP labelled goat anti-rabbit

Predicted band size: 36 kDa Observed band size: 40 kDa



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

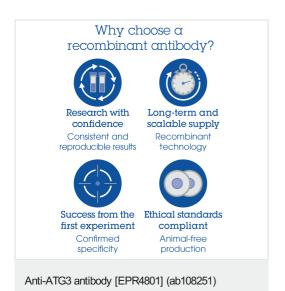
Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling ATG3 (red) with ab108251 at a 1/2000 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluorr® 488) (ab150077) was used as the secondary antibody 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 paraffinembedded sections) - Anti-ATG3 antibody
[EPR4801] (ab108251)

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

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



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