

## Product datasheet

# Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] ab109364

Recombinant RabMAb

★★★★☆ 6 Abreviews 15 References 8 Images

### Overview

<b>Product name</b>	Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805]
<b>Description</b>	Rabbit monoclonal [EPR4805] to GABARAP+GABARAPL1+GABARAPL2
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab109364 will also recognize related targets GABARAPL1 and GABARAPL2: GABARAPL1: pBLAST 100% immunogen homology AND Abreview 38385 WB data GABARAPL2: pBLAST 93% homology (only 1aa gap of 14aa) AND Abreview 38385 WB data
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, WB, IHC-P, ICC/IF <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, Silk worm
<b>Immunogen</b>	Synthetic peptide within Human GABARAP+GABARAPL1+GABARAPL2 aa 1-100. The exact sequence is proprietary.
<b>Positive control</b>	Fetal kidney lysate, fetal brain lysate, SH-SY5Y cell lysate, HepG2 whole cell lysate ( <a href="#">ab7900</a> ), human brain tissue, HeLa cells.
<b>General notes</b>	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>  <b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b>  This product is a recombinant rabbit monoclonal antibody.

### 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. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20

Preservative: 0.01% Sodium azide  
Constituents: 40% Glycerol, PBS, 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR4805
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab109364** 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
Flow Cyt		1/20.
WB	★★★★☆	1/1000 - 1/10000. Predicted molecular weight: 14 kDa.
IHC-P		1/500 - 1/1000. Antigen retrieval is recommended. Ssee <a href="#">IHC antigen retrieval protocols</a> . The mouse and rat recommendation is based on the WB results. This antibody may not be suitable for IHC with mouse or rat samples.
ICC/IF		1/100 - 1/500.
<b>Application notes</b>		Is unsuitable for IP.

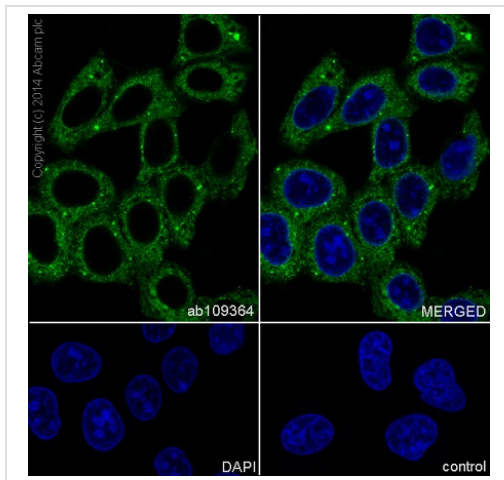
## Target

### Relevance

GABARAP: Ubiquitin-like modifier that plays a role in intracellular transport of GABA(A) receptors and its interaction with the cytoskeleton. Involved in apoptosis. Involved in autophagy. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation.

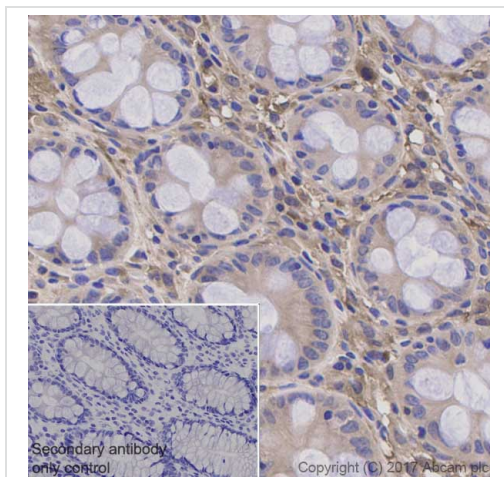
GABARAPL1: Ubiquitin-like modifier that increases cell-surface expression of kappa-type opioid receptor through facilitating anterograde intracellular trafficking of the receptor. Involved in formation of autophagosomal vacuoles. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation.

GABARAPL2: Ubiquitin-like modifier involved in intra-Golgi traffic. Modulates intra-Golgi transport through coupling between NSF activity and SNAREs activation. It first stimulates the ATPase activity of NSF which in turn stimulates the association with GOSR1 (By similarity). Involved in autophagy. Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation.



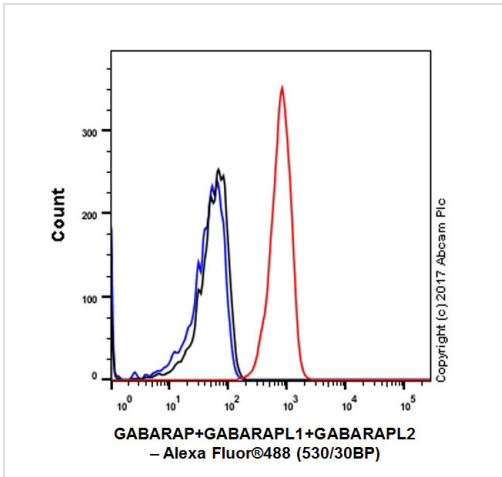
Immunocytochemistry/ Immunofluorescence - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

Immunocytochemistry/Immunofluorescence analysis of HeLa (human cervix adenocarcinoma) labelling GABARAP+GABARAPL1+GABARAPL2 with purified ab109364 at 1/500. Cells were fixed with 4% PFA and permeabilized with 0.1% Triton X-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).



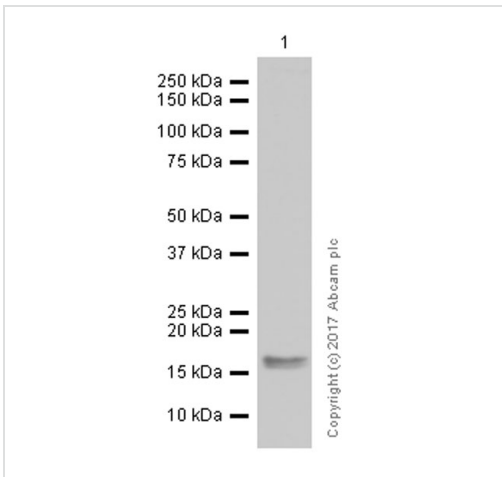
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue sections labeling GABARAP+GABARAPL1+GABARAPL2 with Purified ab109364 at 1:500 dilution (0.29 µg/ml). Heat mediated antigen retrieval was performed using Perform heat mediated antigen retrieval using EDTA Buffer, pH9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Flow Cytometry - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling GABARAP+GABARAPL1+GABARAPL2 with purified ab109364 at 1:20 dilution (10 ug/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilized with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364) at 1/5000 dilution (purified) + Rat kidney lysates at 20 µg

**Secondary**

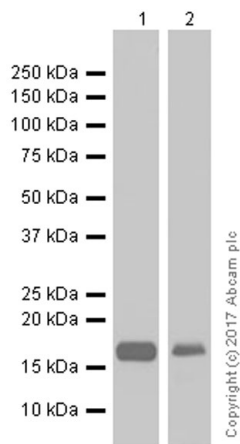
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 14 kDa

**Observed band size:** 17 kDa

[why is the actual band size different from the predicted?](#)

Blocking and diluting buffer: 5% NFD/MBST



Western blot - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

**All lanes :** Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364) at 1/5000 dilution (purified)

**Lane 1 :** Mouse kidney lysates

**Lane 2 :** HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates

Lysates/proteins at 20 µg per lane.

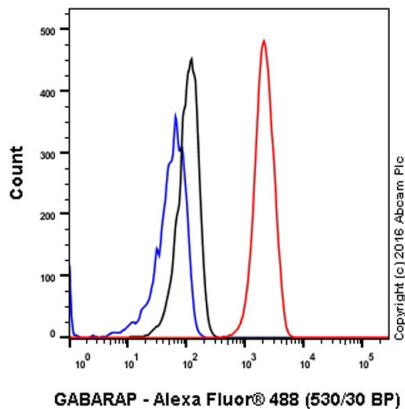
**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 14 kDa

**Observed band size:** 17 kDa [why is the actual band size different from the predicted?](#)

Blocking and diluting buffer: 5% NFDM/TBST



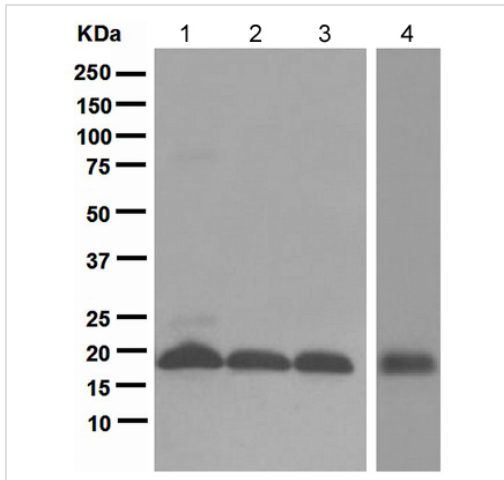
Flow Cytometry - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

Unpurified ab109364 staining

GABARAP+GABARAPL1+GABARAPL2 in the human cell line HeLa (human cervix adenocarcinoma) by flow cytometry. Cells were fixed with 4% paraformaldehyde, permeabilized with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/20. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isootype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



Western blot - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

**All lanes :** Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364) at 1/1000 dilution (unpurified)

**Lane 1 :** Fetal kidney lysate

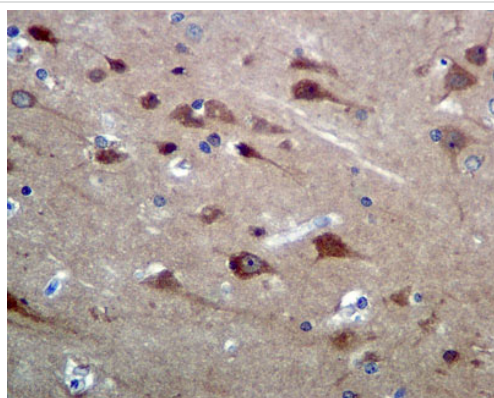
**Lane 2 :** SH-SY5Y cell lysate

**Lane 3 :** HepG2 cell lysate

**Lane 4 :** Fetal brain lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 14 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABARAP+GABARAPL1+GABARAPL2 antibody [EPR4805] (ab109364)

Unpurified ab109364, at 1/500, staining

GABARAP+GABARAPL1+GABARAPL2 in Human brain tissue by immunohistochemistry.

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