abcam

Product datasheet

Anti-Epsin 1 antibody [EPR3023] ab75879

Recombinant RabMAb

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Overview

Product name	Anti-Epsin 1 antibody [EPR3023]
Description	Rabbit monoclonal [EPR3023] to Epsin 1
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Epsin 1 aa 450-550. The exact sequence is proprietary. Database link: **Q9Y6I3**
Positive control	ICC/IF: SH-SY5Y cells WB: SH-SY5Y and HeLa cell lysates
General notes	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**.

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3023

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab75879 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)**	1/500 - 1/2000. Predicted molecular weight: 58 kDa.
ICC/IF		1/50. **For unpurified, use 1/100 - 1/250.**

Application notes Is unsuitable for IHC-P.

Target

Function Binds to membranes enriched in phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2). Modifies membrane curvature and facilitates the formation of clathrin-coated invaginations (By similarity). Regulates receptor-mediated endocytosis.

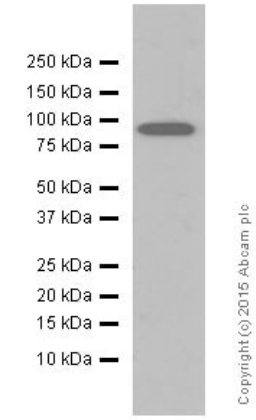
Sequence similarities Belongs to the epsin family.
Contains 1 ENTH (epsin N-terminal homology) domain.
Contains 3 UIM (ubiquitin-interacting motif) repeats.

Domain The NPF repeat domain is involved in EPS15 binding.
The DPW repeat domain is involved in AP2A2 and clathrin binding.
The [DE]-X(1,2)-F-X-X-[FL]-X-X-X-R motif mediates interaction with the AP-2 complex subunit AP2B1.

Post-translational modifications Phosphorylated on serine and/or threonine residues in mitotic cells. Phosphorylation reduces interaction with REPS2, AP-2 and the membrane fraction. Depolarization of synaptosomes results in dephosphorylation.
Ubiquitinated.

Cellular localization Cytoplasm. Cell membrane. Nucleus. Membrane > clathrin-coated pit. Associated with the cytoplasmic membrane at sites where clathrin-coated pits are forming. Colocalizes with clathrin and AP-2 in a punctate pattern on the plasma membrane. Detected in presynaptic nerve terminals and in Golgi stacks. May shuttle to the nucleus when associated with ZBTB16/ZNF145.

Images



Western blot - Anti-Epsin 1 antibody [EPR3023] (ab75879)

Anti-Epsin 1 antibody [EPR3023] (ab75879) at 1/5000 dilution (purified) + rat brain at 20 µg

Secondary

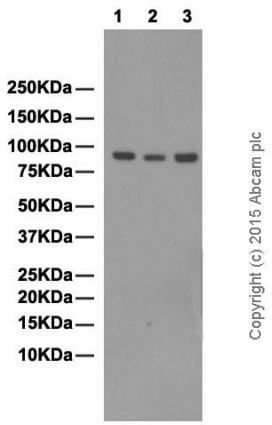
HRP goat anti-rabbit IgG (H+L) at 1/50000 dilution

Predicted band size: 58 kDa

Observed band size: 94 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-Epsin 1 antibody [EPR3023] (ab75879)

All lanes : Anti-Epsin 1 antibody [EPR3023] (ab75879) at 1/1000 dilution (purified)

Lane 1 : 293T cell lysate

Lane 2 : K562 cell lysate

Lane 3 : U-87 MG cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

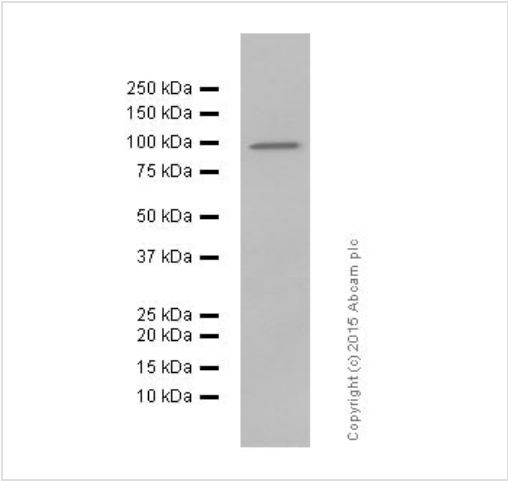
All lanes : HRP goat anti-rabbit IgG (H+L) at 1/10000 dilution

Predicted band size: 58 kDa

Observed band size: 94 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-Epsin 1 antibody [EPR3023] (ab75879)

Anti-Epsin 1 antibody [EPR3023] (ab75879) at 1/5000 dilution (purified) + mouse brain tissue lysate at 20 µg

Secondary

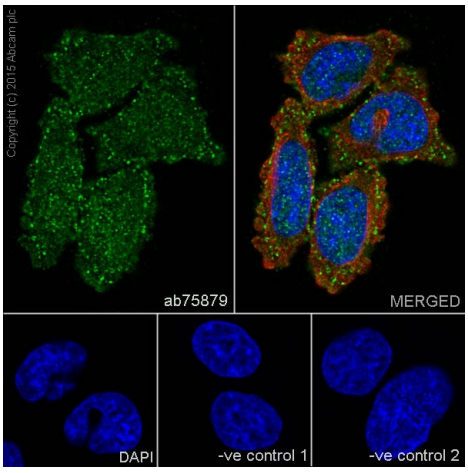
HRP goat anti-rabbit IgG (H+L) at 1/10000 dilution

Predicted band size: 58 kDa

Observed band size: 94 kDa

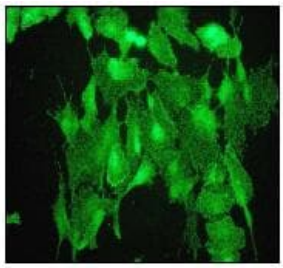
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



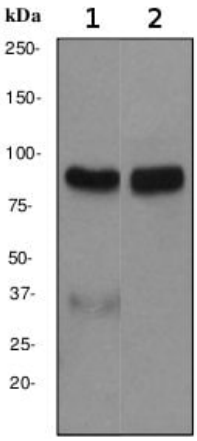
Immunocytochemistry/ Immunofluorescence - Anti-Epsin 1 antibody [EPR3023] (ab75879)

Immunofluorescence staining of HeLa cells with purified ab75879 at a working dilution of 1/50, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (**ab150077**), used at a dilution of 1/1000. **ab7291**, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with **ab150120** (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab75879 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (**ab150120**) at a dilution of 1/500. For negative control 2, **ab7291** (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (**ab150077**) at a dilution of 1/400.



Immunocytochemistry/ Immunofluorescence - Anti-Epsin 1 antibody [EPR3023] (ab75879)

Unpurified ab75879, at a 1/100 dilution, staining Epsin 1 in SH-SY5Y cells by Immunofluorescence.



Western blot - Anti-Epsin 1 antibody [EPR3023] (ab75879)

All lanes : Anti-Epsin 1 antibody [EPR3023] (ab75879) at 1/2000 dilution (unpurified)

Lane 1 : SH-SY5Y cell lysate
Lane 2 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-rabbit-HRP at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 58 kDa

Anti-Epsin 1 antibody [EPR3023] (ab75879)

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