abcam

ab180504

Anti-RAB11-FIP2 antibody [EPR12294-85]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12294-85
Purification technique	Affinity purification Protein A
Concentration	0.549 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Species	Mouse

Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse
Dilution info	1/100
Notes	-

Species	Rat
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Mouse
Dilution info	1/50

Notes	-

Species	Rat
Dilution info	1/50
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information RAB11FIP2

Function	A Rab11 effector binding preferentially phosphatidylinositol 3,4,5-trisphosphate (PtdInsP3) and phosphatidic acid (PA) and acting in the regulation of the transport of vesicles from the endosomal recycling compartment (ERC) to the plasma membrane. Involved in insulin granule exocytosis. Also involved in receptor-mediated endocytosis and membrane trafficking of recycling endosomes, probably originating from clathrin-coated vesicles. Required in a complex with MYO5B and RAB11 for the transport of NPC1L1 to the plasma membrane. Also acts as a regulator of cell polarity. Plays an essential role in phagocytosis through a mechanism involving TICAM2, RAC1 and CDC42 Rho GTPases for controlling actin-dynamics.

Storage

Shipped at conditions	Conditional Ambient

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	RAB11-FIP2 also known as Rab11 Family Interacting Protein 2 interacts mechanically with the small GTPase Rab11. It plays a role in the transport of recycling endosomes to the plasma membrane. The molecular mass of RAB11-FIP2 is approximately 55 kDa. This protein is expressed in a variety of tissues including epithelial cells and neurons indicating its role in diverse cellular environments. Its function is important for maintaining the dynamics of vesicular trafficking.
Biological function summary	The protein influences endocytic recycling processes facilitating the movement of molecules such as glucose transporters and integrins back to the cell surface. RAB11-FIP2 associates with several other proteins in the Rab11 pathway forming a complex that functions in the coordination and regulation of vesicular trafficking. Its precise regulation of membrane recycling has implications for processes like cell migration and signal transduction.
Pathways	The protein operates within the recycling endosome pathway and is part of the intricate network controlling intracellular trafficking. RAB11-FIP2 has significant interactions with proteins like Rab11 and EHD1. These interactions are integral to

	the proper functioning of pathways directing the distribution and localization of important cellular components impacting cellular homeostasis.
Associated diseases and disorders	Improper regulation or mutations of RAB11-FIP2 have been associated with disorders such as cancer and epilepsy. Altered expression levels can affect cellular transport processes contributing to the progression of such diseases. Additionally RAB11-FIP2 shows connections with proteins like GLUT4 in metabolic pathways which suggests a possible role in metabolic disorders highlighting its clinical significance.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

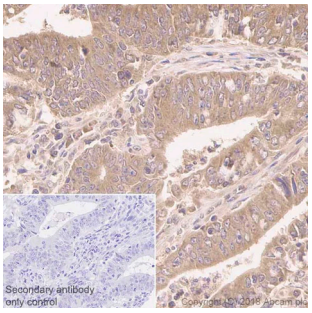
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

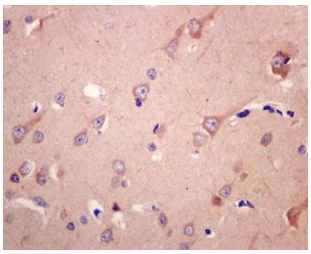
Full details and terms and conditions can be found here:
Terms & Conditions.

8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

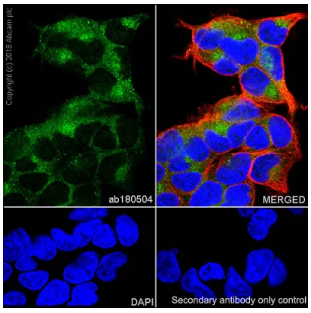
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon cancer tissue sections labeling RAB11-FIP2 with Purified ab180504 at 1:500 dilution (1.09 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use). PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

RAB11-FIP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RAB11-FIP2 antibody

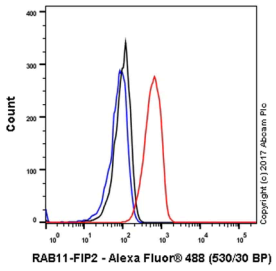
Immunohistochemical analysis of paraffin-embedded, Human brain tissue labeling RAB11-FIP2 with unpurified
ab180504 at a 1/250 dilution. Counter stained with hematoxylin.



Immunocytochemistry/ Immunofluorescence - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

RAB11-FIP2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RAB11-FIP2 antibody

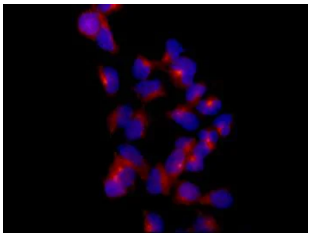
Immunocytochemistry/ Immunofluorescence analysis of HEK-293 (human embryonic kidney epithelial cell) cells labeling RAB11-FIP2 with purified ab180504 at 1:100 (5.5 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

RAB11-FIP2 Flow Cytometry (Intracellular) staining using rabbit Anti-RAB11-FIP2 antibody

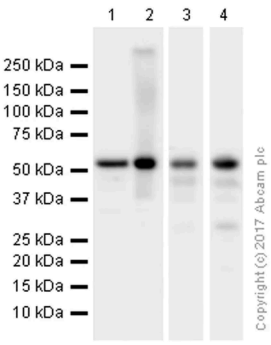
Intracellular Flow Cytometry analysis of HEK-293 (Human embryonic kidney epithelial cell) cells labeling RAB11-FIP2 with purified ab180504 at 1/50 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

RAB11-FIP2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RAB11-FIP2 antibody

Immunofluorescence analysis of, paraformaldehyde-fixed, 293 cells labeling RAB11-FIP2 with unpurified
ab180504 at a 1/100 dilution. As secondary antibody goat anti rabbit IgG (Alexa Fluor®555) was used at a 1/250. In blue DAPI staining.



Western blot - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

All lanes:
Western blot - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504) at 1/10000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

Lane 2:
HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates at 20 µg

Lane 3:
Mouse brain lysates at 20 µg

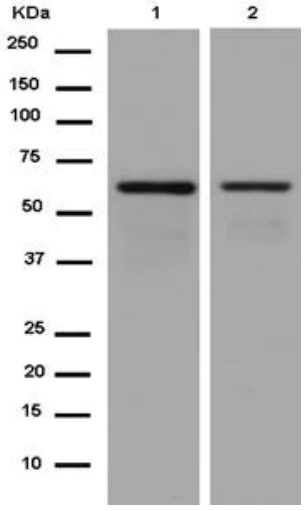
Lane 4:
Rat brain lysates at 20 µg

Secondary

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

Predicted band size: 58 kDa

Observed band size: 58 kDa



Western blot - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

All lanes:
Western blot - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504) at 1/10000 dilution

Lane 1:
293 cell lysate at 20 µg

Lane 2:
HeLa cell lysate at 20 µg

Secondary

All lanes:
goat anti-rabbit IgG, (H+L), peroxidase conjugated at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 58 kDa

Observed band size: 58 kDa

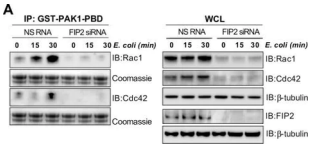


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Western blot - Anti-RAB11-FIP2 antibody [EPR12294-85] (ab180504)

RAB11-FIP2 western blot using anti-RAB11-FIP2 antibody [EPR12294-85] ab180504. Publication image and figure legend from Skjesol, A., Yurchenko, M., et al., 2019, PLoS Pathog, PubMed 30883606.

ab180504 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab180504 please see the product overview.

FIP2 controls E. coli stimulated activation of Rac1 and Cdc42.(A) Immunoblot of E. coli stimulated activation of Cdc42 and Rac1 in THP-1 cells treated with NS RNA and FIP2 siRNA. The activation of Cdc42 and Rac1 was monitored by co-incubating glutathione-agarose beads conjugated with GST-PAK1-PBD with lysates of THP-1 cells stimulated with E. coli bioparticles as indicated. (B) Rac1 and Cdc42 levels in lysates from THP-1 cells treated with NS RNA, TRAM siRNA and FIP2 siRNA. (C) Rac1, Cdc42 and FIP2 levels relative to β-tubulin protein levels in wild type THP-1 cells transduced with pLVX-empty- or pLVX-FIP2 vector. (D) Immunoblot of primary human macrophages (M) stimulated with E. coli bioparticles. TRAM antibody conjugated Dynabeads were used for co-precipitation of FIP2 and Rac1 from lysates.

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