abcam

ab167429

Anti-KIF5B+KIF5C antibody [EPR10276(B)]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.21% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR10276(B)
Purification technique	Affinity purification Protein A
Concentration	0.216 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat, Recombinant fragment - Mouse
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Mouse
Dilution info	-
Notes	-

WB

Tested

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

Species	Rat
Dilution info	1/1000 - 1/10000

Notes	-

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

Species	Recombinant fragment - Mouse
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Mouse
Dilution info	-
Notes	-

Target data

See full target information KIF5B

Function

Microtubule-dependent motor required for normal distribution of mitochondria and lysosomes. Can induce formation of neurite-like membrane protrusions in non-neuronal cells in a ZFYVE27-dependent manner (By similarity). Regulates centrosome and nuclear positioning during mitotic entry. During the G2 phase of the cell cycle in a BICD2-dependent manner, antagonizes dynein function and drives the separation of nuclei and centrosomes (PubMed:20386726). Required for anterograde axonal transportation of MAPK8IP3/JIP3 which is essential for MAPK8IP3/JIP3 function in axon elongation (By similarity). Through binding with PLEKHM2 and ARL8B, directs lysosome movement toward microtubule plus ends (Probable). Involved in NK cell-mediated cytotoxicity. Drives the polarization of cytolytic granules and microtubule-organizing centers (MTOCs) toward the immune synapse between effector NK lymphocytes and target cells (PubMed:24088571).

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.

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

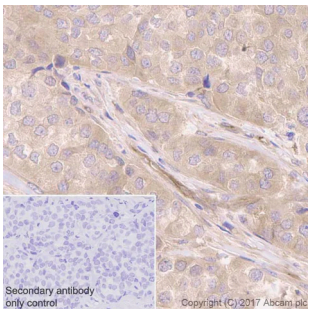
We do not recommend this combination. It is not covered by our product promise.

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.

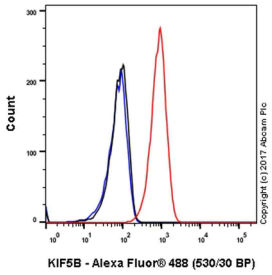
10 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

KIF5B+KIF5C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KIF5B+KIF5C antibody

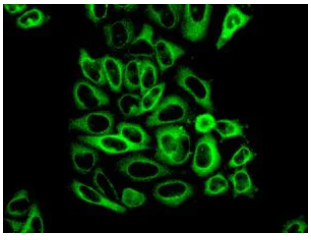
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast carcinoma tissue sections labeling KIF5B with Purified ab167429 at 1:250 dilution (0.07 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Flow Cytometry (Intracellular) - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

KIF5B+KIF5C Flow Cytometry (Intracellular) staining using rabbit Anti-KIF5B+KIF5C antibody

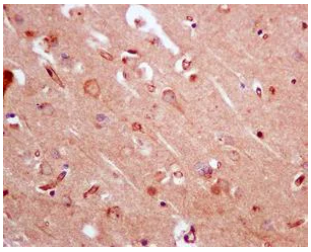
Intracellular Flow Cytometry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling KIF5B with purified ab167429 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary 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).



Immunocytochemistry/ Immunofluorescence - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

KIF5B+KIF5C Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-KIF5B+KIF5C antibody

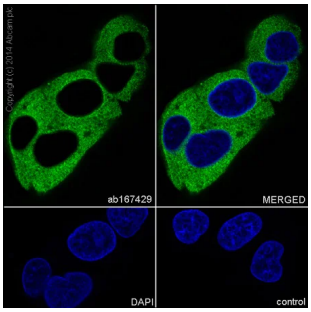
Immunofluorescence analysis of HeLa cells, labeling KIF5B using unpurified ab167429 at a 1/100 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

KIF5B+KIF5C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KIF5B+KIF5C antibody

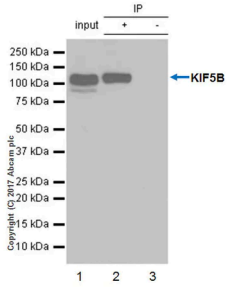
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human brain tissue, labeling KIF5B using unpurified ab167429 at a 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

KIF5B+KIF5C Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-KIF5B+KIF5C antibody

Immunocytochemistry/Immunofluorescence analysis HepG2(human hepatocellular carcinoma) labelling KIF5B with purified ab167429 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).
Control: PBS only



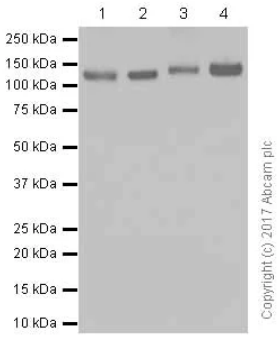
Immunoprecipitation - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

ab167429 (purified) at 1:20 dilution (2µg) immunoprecipitating KIF5B in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab167429 & HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab167429 in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

Predicted band size: 110 kDa



Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

KIF5B+KIF5C Western blot staining using rabbit Anti-KIF5B+KIF5C antibody

Blocking and diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429) at 1/5000 dilution

Lane 1:
Jurkat (human acute T cell leukemia) whole cell lysates at 20 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

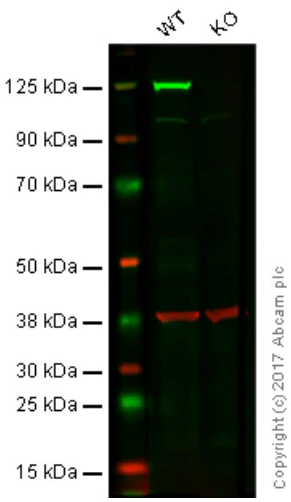
Lane 3:
Mouse brain lysates at 20 µg

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: 110 kDa



Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

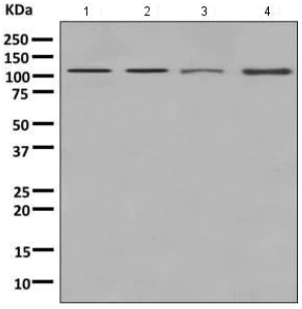
KIF5B+KIF5C Western blot staining using rabbit Anti-KIF5B+KIF5C antibody

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: KIF5B knockout HAP1 whole cell lysate (20 µg)
Lanes 1 - 2: Merged signal (red and green). Green - ab167429 observed at 110 kDa. Red - loading control, ab9484, observed at 37 kDa.

Unpurified ab167429 was shown to specifically react with KIF5B in wild-type cells as signal was lost in KIF5B knockout cells. Wild-type and KIF5B knockout samples were subjected to SDS-PAGE. ab167429 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

Predicted band size: 110 kDa



Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

All lanes:
Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429) at 1/1000 dilution

Lane 1:
Human fetal kidney lysate at 10 µg

Lane 2:
HeLa lysate at 10 µg

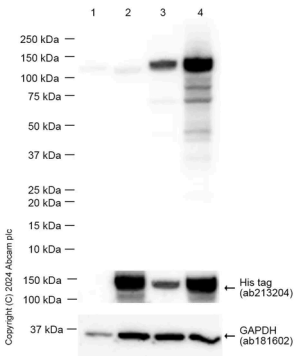
Lane 3:
Jurkat lysate at 10 µg

Lane 4:
HepG2 lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 110 kDa



Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

Blocking and diluting buffer and concentration: 5% NFDM/TBST

ab181602 was used a GAPDH loading control.

All lanes:
Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429) at 1/1000 dilution

Lane 1:
293T (Human embryonic kidney epithelial cell) +OE-empty at 20 µg

Lane 2:
293T (Human embryonic kidney epithelial cell) +OE-mouse KIF5A at 20 µg

Lane 3:
293T (Human embryonic kidney epithelial cell) +OE-mouse KIF5C at 20 µg

Lane 4:
293T (Human embryonic kidney epithelial cell) +OE-mouse KIF5B at 20 µg

Secondary

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

Observed band size: 110 kDa

Exposure time: 1s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.