abcam

Product datasheet

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

KO VALIDATED Recombinant RabMAb

3 Abreviews 37 References 11 Images

Overview

Product name	Anti-KIF5B+KIF5C antibody [EPR10276(B)]
Description	Rabbit monoclonal [EPR10276(B)] to KIF5C + KIF5B
Host species	Rabbit
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human KIF5B aa 1-100. Database link: **P33176**
Positive control	Human fetal kidney, HeLa, Jurkat and HepG2 lysates; Human brain tissue; HeLa cells.
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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.21% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR10276(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab167429 in the following tested applications.

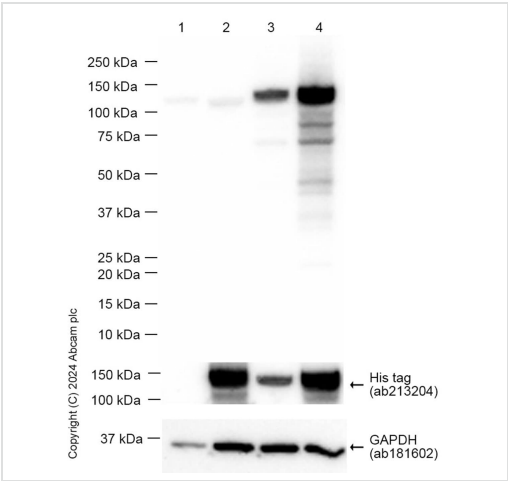
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 110 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
ICC/IF		1/100 - 1/500.
IP		1/10 - 1/100.

Target

Cellular localization KIF5C: Cytoplasm > cytoskeleton. KIF5B: Cytoplasm, cytoskeleton. Uniformly distributed between soma and neurites in hippocampal neurons.

Images



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

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

Lane 1 : 293T (Human embryonic kidney epithelial cell) +OE-empty
Lane 2 : 293T (Human embryonic kidney epithelial cell) +OE-mouse KIF5A
Lane 3 : 293T (Human embryonic kidney epithelial cell) +OE-mouse KIF5C
Lane 4 : 293T (Human embryonic kidney epithelial cell) +OE-mouse KIF5B

Lysates/proteins at 20 µg per lane.

Secondary

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

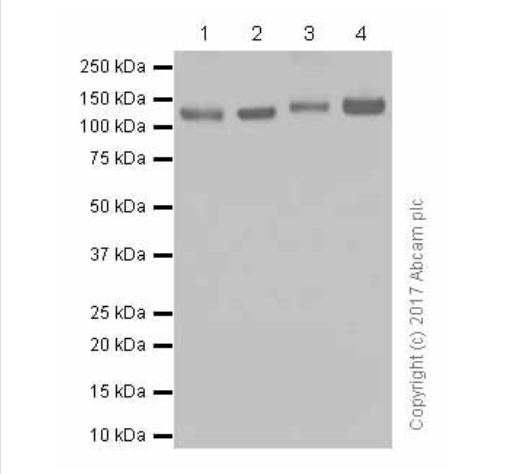
dilution

Predicted band size: 110 kDa
Observed band size: 110 kDa

Exposure time: 1 second

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

ab181602 was used a GAPDH loading control.



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

All lanes : Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429) at 1/5000 dilution (purified)

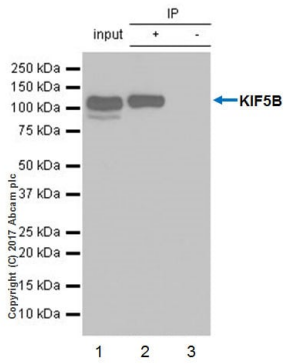
Lane 1 : Jurkat (human acute T cell leukemia) whole cell lysates
Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 3 : Mouse brain lysates
Lane 4 : Rat brain lysates

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: 110 kDa

Blocking and diluting buffer: 5% NFDM/TBST

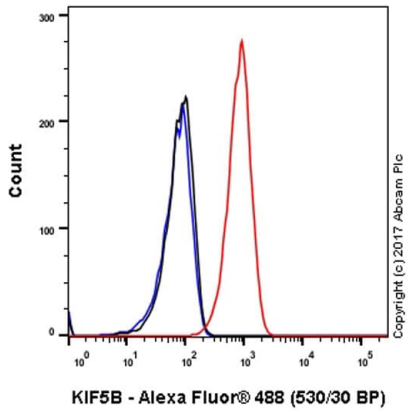


Immunoprecipitation - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

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

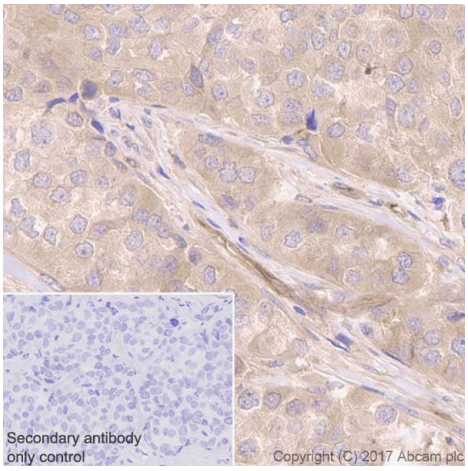
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab167429 & HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab167429 in HeLa (Human cervix adenocarcinoma epithelial cell)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



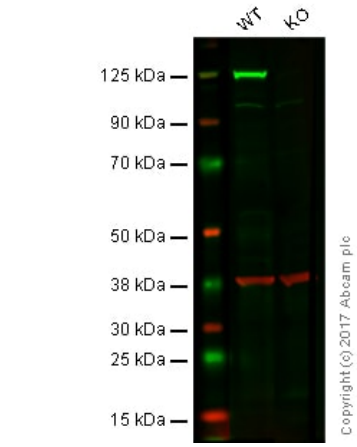
Flow Cytometry (Intracellular) - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

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).



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

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.

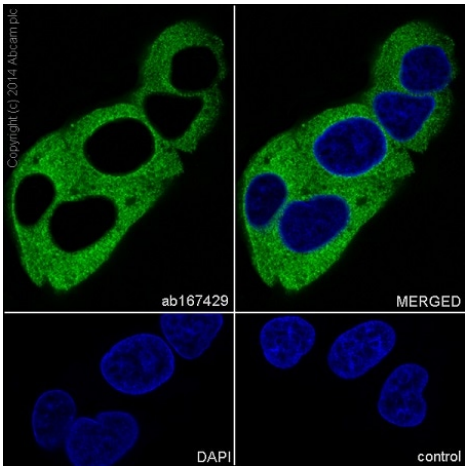


Western blot - Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429)

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.

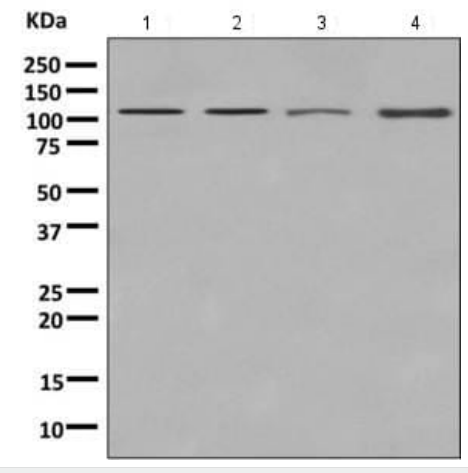
Unpurified ab167429 was shown to specifically react with KIF5B in wild-type cells as signal was lost in KIF5B knockout cells. Wild-type and KIF5B knockout samples were subjected to SDS-PAGE. Ab167429 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution 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.



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

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



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

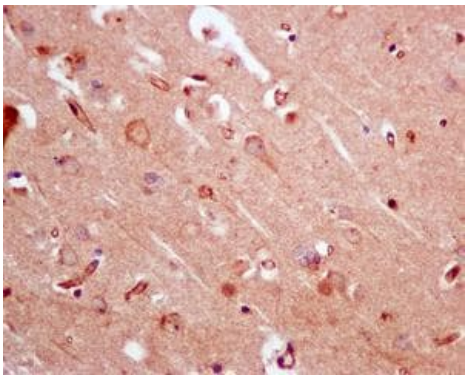
All lanes : Anti-KIF5B+KIF5C antibody [EPR10276(B)] (ab167429) at 1/1000 dilution (unpurified)

Lane 1 : Human fetal kidney lysate
Lane 2 : HeLa lysate
Lane 3 : Jurkat lysate
Lane 4 : HepG2 lysate

Lysates/proteins at 10 µg per lane.

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

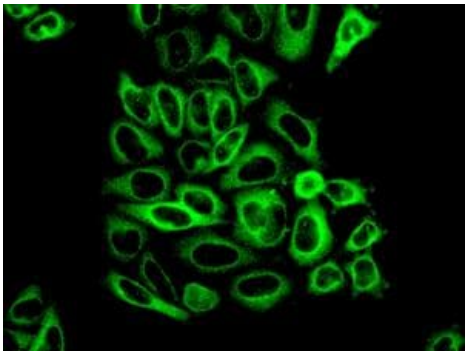
Predicted band size: 110 kDa



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

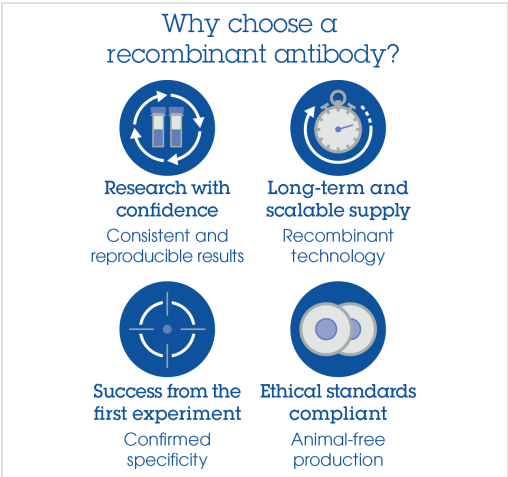
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human brain tissue, labeling KIF5B using unpurified ab167429 at a 1/100 dilution.

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)

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



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

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