abcam

ab172620

Anti-KIFC1 antibody [11445]

Anti-KIFC1 antibody [11445] (ab172620) is a rabbit monoclonal antibody detecting KIFC1 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Recombinant | RabMAb | KO Validated | 20ul selling size

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	11445
Purification technique	Affinity purification Protein A
Concentration	0.218 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

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

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/16000
Notes	For unpurified use at 1/50 - 1/100.

Target data

See full target information KIFC1

Function	Minus end-directed microtubule-dependent motor required for bipolar spindle formation (PubMed:15843429). May contribute to movement of early endocytic vesicles (By similarity). Regulates cilium formation and structure (By similarity).

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

What is this antibody validated in?
Anti-KIFC1 antibody [11445] (ab172620) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of KIFC1?
Anti-KIFC1 [11445] (ab172620) specifically detects a band for KIFC1 (UniProt: Q9BW19) at a molecular weight of 74kDa.

Trusted by the scientific community
Anti-KIFC1 [11445] (ab172620) was first used in a scientific publication in 2013 and has been cited over 10 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-KIFC1 antibody [11445] (ab172620) has been confirmed by Western blot testing in KIFC1 Knockout HAP1 cells.

Other related products
We have a range of other formats of antibody clone [11445] also available for your convenience: ab172620, Alexa Fluor® 647 - ab225237, Alexa Fluor® 488 - ab225238, Carrier free - ab235994, PE - ab306126, APC - ab306127, HRP - ab306128, Alkaline Phosphatase - ab308693, Alexa Fluor® 594 - ab310401, Alexa Fluor® 555 - ab311928, Alexa

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size 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

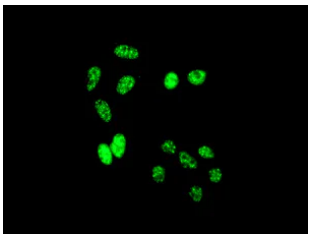
We do not recommend this combination. It is not covered by our product promise.

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.

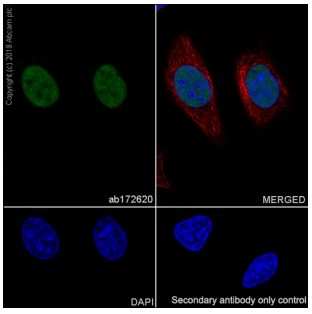
12 product images



Immunocytochemistry/ Immunofluorescence - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-KIFC1 antibody

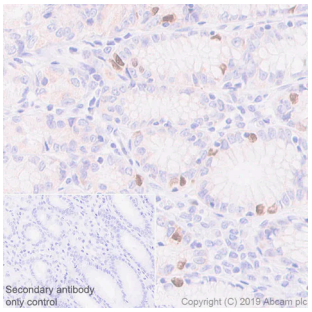
Immunofluorescent staining of HeLa cells labeling KIFC1 with ab172620 (unpurified) at 1/50 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-KIFC1 antibody

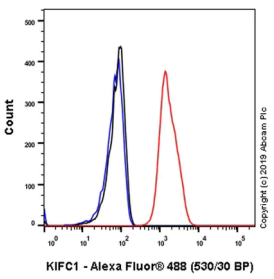
Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling KIFC1 with purified ab172620 at 1/50 dilution (4.0 µg/ml). Cells were fixed in 100% Methanol. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200 (2.5 µg/ml) dilution. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KIFC1 antibody

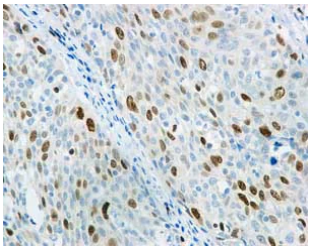
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human stomach tissue sections labeling KIFC1 with purified ab172620 at 1/16000 dilution (0.01 µg/ml). Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Flow Cytometry (Intracellular) staining using rabbit Anti-KIFC1 antibody

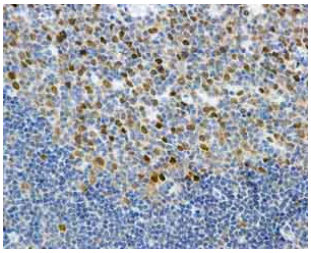
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling KIFC1 with purified ab172620 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. 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-KIFC1 antibody [11445] (ab172620)

KIFC1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KIFC1 antibody

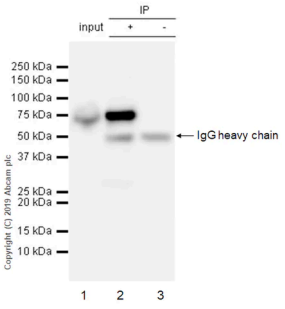
Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma tissue labeling KIFC1 with ab172620 (unpurified) at 1/50 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KIFC1 antibody

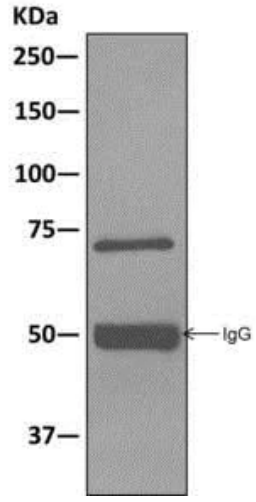
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue laneling KIFC1 with ab172620 (unpurified) at 1/50 dilution.



Immunoprecipitation - Anti-KIFC1 antibody [11445] (ab172620)

ab172620 (purified) at 1/20 dilution (1ug) immunoprecipitating KIFC1 in Jurkat whole cell lysates.
Lane 1: Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates 10ug
Lane 2 (+): ab172620 & Jurkat whole cell lysates
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab172620 in Jurkat whole cell lysates
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-KIFC1 antibody [11445] (ab172620)

Predicted band size: 74 kDa

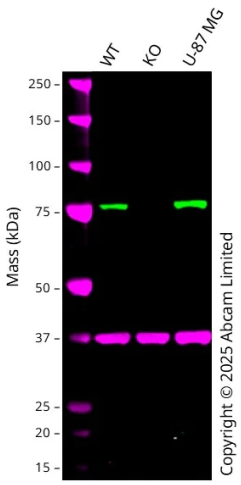


Western blot - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Western blot staining using rabbit Anti-KIFC1 antibody

Western blot analysis on immunoprecipitation pellet from 293T cell lysate, labeling KIFC1 with ab172620 (unpurified) at 1/10 dilution.
All lanes:
Western blot - Anti-KIFC1 antibody [11445] (ab172620)

Predicted band size: 74 kDa



Western blot - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Western blot staining using rabbit Anti-KIFC1 antibody

Western blot: Rabbit Monoclonal[11445] to KIFC1 ab172620 staining at 1/50000 dilution, shown in green; Mouse anti GAPDH (ab8245) loading control staining at 1/20,000 dilution, shown in magenta. A band was observed at 75 kDa in Wild-type A549 cell lysates with no signal observed at this size in KIFC1 knockout A549 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20,000 dilution.
Lanes 1 - 3:
Western blot - Anti-KIFC1 antibody [11445] (ab172620) at 1/50000 dilution

Lanes 1 - 4:
Western blot - Anti-PERK antibody [EPR19876-294] - BSA and Azide free (ab254249) at 1/50000 dilution

Lane 1:
Wild-type A549 at 20 µg

Lane 2:
KIFC1 knockout A549 at 20 µg

Lane 2:
KIFC1 knockout A549 at 20 g

Lane 3:
U-87 MG at 20 µg

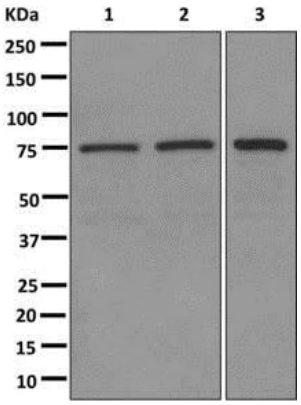
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 74 kDa

Observed band size: 75 kDa



Western blot - Anti-KIFC1 antibody [11445] (ab172620)

All lanes:
Western blot - Anti-KIFC1 antibody [11445] (ab172620) at 1/10000 dilution

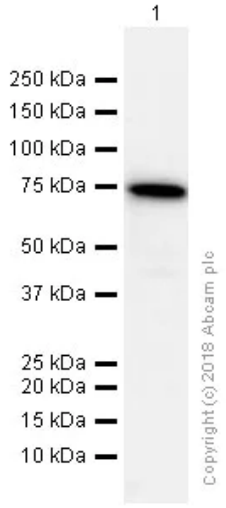
Lane 1:
HeLa lysate at 10 µg

Lane 2:
293T lysate at 10 µg

Lane 3:
HepG2 lysate at 10 µg

Predicted band size: 74 kDa

Western blot - Anti-KIFC1 antibody [11445] (ab172620)



All lanes:
Western blot - Anti-KIFC1 antibody [11445] (ab172620) at 1/50000 dilution

All lanes:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Secondary

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

Predicted band size: 74 kDa

Observed band size: 74 kDa

D

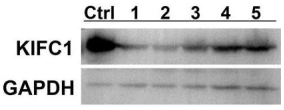


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Western blot - Anti-KIFC1 antibody [11445] (ab172620)

KIFC1 Western blot staining using rabbit Anti-KIFC1 antibody

KIFC1 western blot using anti-KIFC1 antibody [11445] ab172620. Publication image and figure legend from She, Z. Y., Pan, M. Y., et al., 2017, Oncotarget, PubMed 28430595.

ab172620 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 ab172620 please see the product overview.

Depletion of KIFC1 led to the disorganization and dispersal of the Golgi apparatus(A, B) HEK293T cells were transfected with the shLuc, shkifc1-1, shkifc1-2, shkifc1-3 shRNA plasmids for 90 hr and analyzed by immunofluorescence assays, respectively. shLuciferase was used for the control group. DAPI (blue), GFP (green), GM130 (red), DIC (Differential Interference Contrast). Scale bars, 5 µm. (C) Representative three dimensional images of the Golgi apparatus (GM130, red) in the shRNA transfected HEK293T cells. The zoom is the magnified view of the indicated box. Scale bars, 5 µm. (D, E) Western Blot analysis of RNAi knockdown efficiency in HEK293T cells after 90 hr. Five different kifc1 targeting shRNA plasmids were used as candidates. The first, second and fourth plasmid (1, 2, 4 designated as shkifc1-1, shkifc1-2 and shkifc1-3, respectively) were selected for this study. GAPDH was used as the loading control. (F) Quantification the ratios of cells containing normal Golgi apparatus in the transfected HEK293T cells after kifc1 knockdown assay for 90 hr. Data are represented as mean ± SEM. ns, not significant; *p < 0.05; **p < 0.01; ***p < 0.001 (Student's t-test). (G) Quantification of the ratios of disorganized Golgi apparatus (gray color) and the dispersed Golgi (black color) into vesicles after s after kifc1 knockdown assay for 90 hr. Data are represented as mean ± SEM. ns, not significant; *p < 0.05; **p < 0.01; ***p < 0.001 (Student's t-test).

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