BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-MCAK/KIF2C Antibody Picoband®

Catalog Number: PB9230

About KIF2C

Kinesin-like protein KIF2C is a protein that in humans is encoded by the KIF2C gene. It is mapped to 1p34.1. The protein encoded by this gene is a member of kinesin-like protein family. Most proteins of this family are microtubule-dependent molecular motors that transport organelles within cells and move chromosomes during cell division. This protein acts to regulate microtubule dynamics in cells and is important for anaphase chromosome segregation and may be required to coordinate the onset of sister centromere separation. KIF2C uses microtubule depolymerizing activity to correct improper microtubule attachments at kinetochores.

Overview

Product Name	Anti-MCAK/KIF2C Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MCAK/KIF2C Antibody Picoband® catalog # PB9230. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q99661

Technical Details

Immunogen	E.coli-derived human MCAK recombinant protein (Position: G531-Q725). Human MCAK shares 87% amino acid (aa) sequence identity with both mouse and rat MCAK.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.

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Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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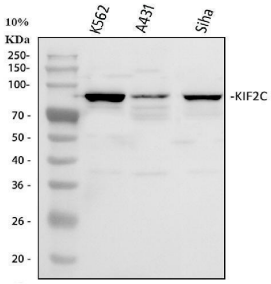
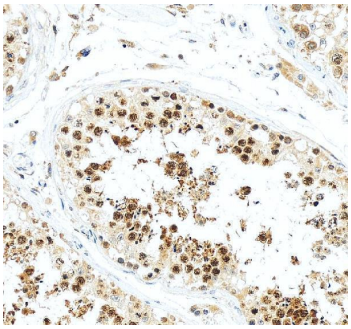
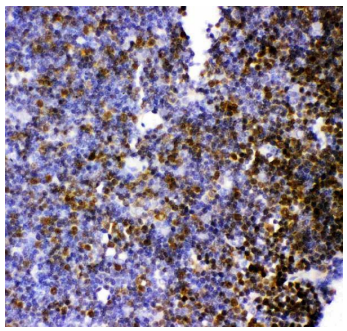
Anti-MCAK/KIF2C Antibody Picoband® (PB9230) Images



Western blot analysis of MCAK using anti-MCAK antibody (PB9230). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human SiHa whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MCAK antigen affinity purified polyclonal antibody (Catalog # PB9230) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MCAK at approximately 81 kDa. The expected band size for MCAK is at 81 kDa.



IHC analysis of KIF2C using anti-KIF2C antibody (PB9230). KIF2C was detected in a paraffin-embedded section of human testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KIF2C Antibody (PB9230) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Anti-MCAK antibody, PB9230, IHC(P)IHC(P): Rat Thymus Tissue

Anti-MCAK antibody, PB9230, IHC(P)IHC(P): Rat Testis Tissue

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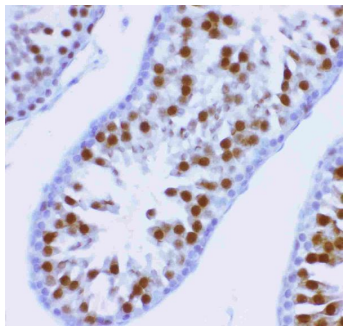
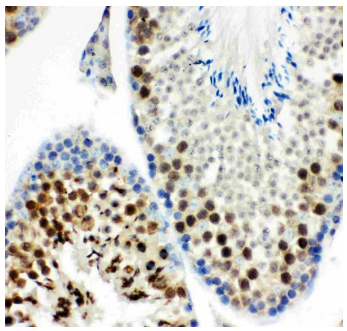
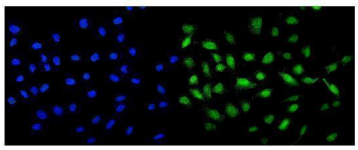
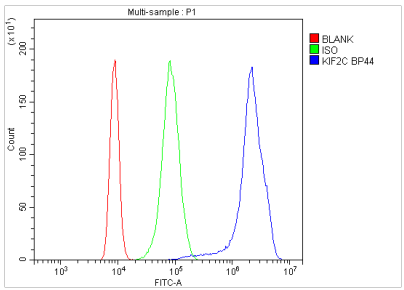




Anti-MCAK antibody, PB9230, IHC(P)IHC(P): Mouse Testis Tissue



IF analysis of MCAK using anti-MCAK antibody (PB9230). MCAK was detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-MCAK Antibody (PB9230) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of K562 cells using anti-MCAK antibody (PB9230).Overlay histogram showing K562 cells stained with PB9230 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCAK Antibody (PB9230,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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For Research Use Only. Not for use in diagnostic procedures.