BOSTER BIOLOGICAL TECHNOLOGY
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Anti-KIF15 Antibody Picoband®

Catalog Number: A05983-1

About KIF15

Kinesin family member 15 is a protein that in humans is encoded by the KIF15 gene. It is mapped to 3p21.31. This gene encodes a motor protein that is part of the kinesin superfamily. KIF15 maintains half spindle separation by opposing forces generated by other motor proteins. KIF15 co-localizes with microtubules and actin filaments in both dividing cells and in postmitotic neurons. KIF15 (also known as Kinesin-12 and HKLP2) is a motor protein expressed in all cells during mitosis and in postmitotic neurons undergoing axon growth. KIF15 maintains bipolar microtubule spindle apparatus in dividing cells and shares redundant functions with KIF11. KIF15 is thought to promote spindle assembly by cross-linking and sliding along microtubules creating a separation between centrosomes. HeLa cells depleted of KIF11, with reduced microtubule dynamics, are able to form bipolar spindles from acentrosomal asters in a KIF15 dependent manner. Hence, inhibition of KIF15 function will be a vital therapeutic approach in cancer chemotherapy.

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Overview

Product Name	Anti-KIF15 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-KIF15 Antibody Picoband® catalog # A05983-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	Q9NS87

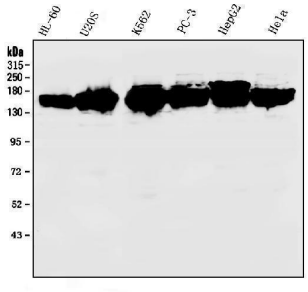
Technical Details

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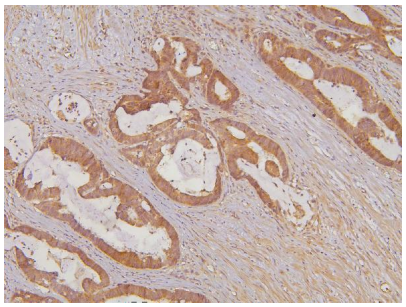
Immunogen	E.coli-derived human KIF15 recombinant protein (Position: M1201-S1388).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross 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 Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 5ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cells ELISA, 0.1-0.5ug/ml Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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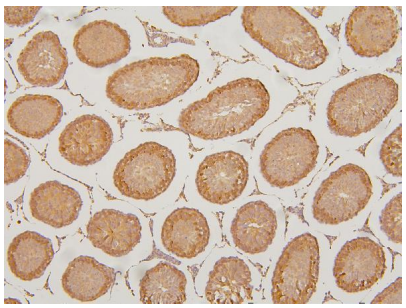
Anti-KIF15 Antibody Picoband® (A05983-1) Images



Western blot analysis of KIF15 using anti-KIF15 antibody (A05983-1). 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 50ug of sample under reducing conditions. Lane 1: human HL-60 whole cell lysates, Lane 2: human U20S whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human PC-3 whole cell lysates, Lane 5: human HepG2 whole cell lysates, Lane 6: human Hela whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-KIF15 antigen affinity purified polyclonal antibody (Catalog # A05983-1) 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 KIF15 at approximately 150-160KD. The expected band size for KIF15 is at 150-160KD.



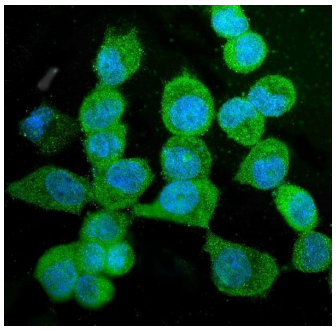
IHC analysis of KIF15 using anti-KIF15 antibody (A05983-1). KIF15 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-KIF15 Antibody (A05983-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



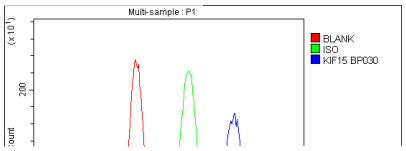
IHC analysis of KIF15 using anti-KIF15 antibody (A05983-1). KIF15 was detected in paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-KIF15 Antibody (A05983-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IF analysis of KIF15 using anti-KIF15 antibody (A05983-1). KIF15 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The

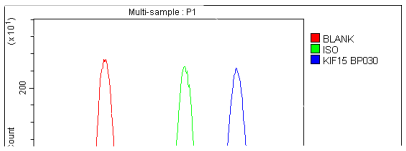
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cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-KIF15 Antibody (A05983-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 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 SiHa cells using anti-KIF15 antibody (A05983-1). Overlay histogram showing SiHa cells stained with A05983-1 (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-KIF15 Antibody (A05983-1, 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.



Flow Cytometry analysis of U20S cells using anti-KIF15 antibody (A05983-1). Overlay histogram showing U20S cells stained with A05983-1 (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-KIF15 Antibody (A05983-1, 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.

Anti-KIF15 Antibody

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