

## Anti-KIF3A Antibody Picoband®

Catalog Number: PB9654

### About KIF3A

Kinesin-like protein KIF3A is a protein that in humans is encoded by the KIF3A gene. KIF3A is one subunit of the heterotrimeric motor protein, kinesin-2, that was initially isolated from sea urchin egg/embryo cytosol using microtubule affinity purification. This motor consists of two kinesin-related subunits (called KIF3A and KIF3B or 3C in vertebrates) and an associated protein (KAP3), and it transports protein complexes, nucleic acids and organelles towards the "plus" ends of microtubule tracks within cells. Work done in a broad range of eukaryotic cells has revealed that heterotrimeric kinesin-2 is the primary motor protein driving the intra-flagellar transport of tubulins and other axonemal building blocks from the base of the ciliary/flagellar axoneme to their site of assembly at the distal tips. This process is required for cilium assembly/maintenance and cilium-based signalling which play key roles in various cell and developmental processes. For example, in vertebrate embryos, kinesin-2 function is required for cilia-dependent nodal flow and the development of left-right asymmetry.

### Overview

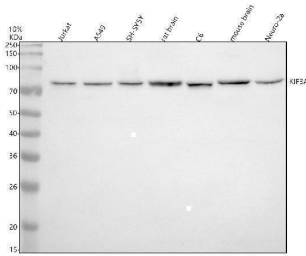
Product Name	Anti-KIF3A Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-KIF3A Antibody Picoband® catalog # PB9654. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg Na <sub>3</sub> . *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	Q9Y496

### Technical Details

Immunogen	E.coli-derived human KIF3A recombinant protein (Position: D485-Q699). Human KIF3A shares 97.7% amino acid (aa) sequence identity with mouse KIF3A.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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, Rat

## Anti-KIF3A Antibody Picoband® (PB9654) Images



Western blot analysis of KIF3A using anti-KIF3A antibody (PB9654). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse brain tissue lysates, Lane 7: mouse Neuro-2a 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-KIF3A antigen affinity purified polyclonal antibody (PB9654) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for KIF3A at approximately 80 kDa. The expected band size for KIF3A is at 80 kDa.

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### Anti-KIF3A Antibody

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