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Anti-KIF3A Picoband Antibody

Catalog # ABO12340

Product Information

Application	WB
Primary Accession	Q9Y496
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Kinesin-like protein KIF3A(KIF3A) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	11127
Other Names	Kinesin-like protein KIF3A, Microtubule plus end-directed kinesin motor 3A, KIF3A, KIF3
Calculated MW	80041
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	80041 MW
Tissue Specificity	Microtubule-based anterograde translocator for membranous organelles. Plus end-directed microtubule sliding activity in vitro. Plays a role in primary cilia formation (By similarity). .
Source	Eukaryota
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human KIF3A recombinant protein (Position: D485-Q699). Human KIF3A shares 97.7% amino acid (aa) sequence identity with mouse KIF3A.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities	Kinesin-like protein KIF3A

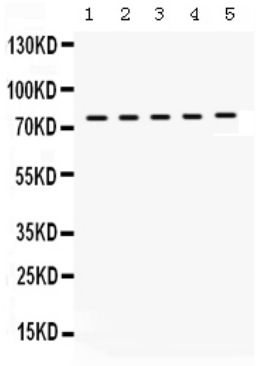
Protein Information

Name	KIF3A
Synonyms	KIF3
Function	Microtubule-based anterograde translocator for membranous organelles, such as primary cilium and centriole. Shows a plus end- directed microtubule sliding activity in vitro. Plays a role in primary cilia formation, probably by mediating transport of proteins into primary cilia. Mediates smoothened (SMO) translocation into primary cilia in response to hedgehog morphogens. Plays a role in centriole cohesion and subdistal appendage organization and function. Regulates the formation of the subdistal appendage via recruitment of DCTN1 to the centriole. Also required for ciliary basal feet formation and microtubule anchoring to mother centriole.
Cellular Location	Cytoplasm, cytoskeleton. Cell projection, cilium {ECO:0000250|UniProtKB:P28741}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Note=Localizes to the subdistal appendage region of the centriole.

Background

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

Images



Anti- KIF3A Picoband antibody, ABO12340, Western blottingAll lanes: Anti KIF3A (ABO12340) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Testis Tissue Lysate at 50ugLane 3: Mouse Brain Tissue Lysate at 50ugLane 4: Mouse Testis Tissue Lysate at 50ugLane 5: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 80KDObserved bind size: 80KD