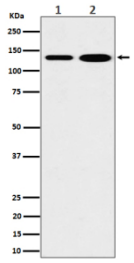
MYO1B Antibody / Myosin IB [clone 30M16] (FY12415)

Catalog No.	Formulation	Size
FY12415	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30M16
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O43795
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200
Limitations	This MYO1B antibody is available for research use only.



Western blot analysis of MYO1B expression in (1) human 293 cell lysate; (2) mouse heart lysate. Predicted molecular weight: ~125 kDa.

Description

MYO1B antibody recognizes myosin IB, a member of the class I myosins encoded by the MYO1B gene. Myosin IB is a monomeric actin based motor protein that uses ATP hydrolysis to generate mechanical force. Unlike conventional

myosins, class I myosins lack the ability to form filaments and instead function as membrane associated motors. MYO1B contains a motor domain that interacts with actin filaments, a neck domain with calmodulin binding IQ motifs, and a tail domain that anchors the protein to cellular membranes. Through these features, MYO1B contributes to membrane trafficking, endocytosis, and cytoskeletal organization.

MYO1B antibody is widely used in studies of cell motility, intracellular trafficking, and actin cytoskeleton dynamics. The protein is expressed in a variety of tissues, with high levels found in brain, kidney, and epithelial cells. MYO1B regulates actin dependent processes including lamellipodia extension and endocytic vesicle transport. By detecting MYO1B, researchers can explore how actin motor proteins coordinate signaling and transport at the plasma membrane.

The antibody is suitable for western blotting, immunohistochemistry, immunofluorescence, and flow cytometry. In western blot assays, MYO1B antibody identifies protein bands of expected molecular weight, enabling quantitative assessment of expression. Immunohistochemistry reveals strong staining at actin rich regions of cells and tissues. Immunofluorescence studies highlight dynamic localization of MYO1B in lamellipodia, endocytic vesicles, and actin filament networks.

MYO1B has been implicated in neuronal development, where it contributes to neurite outgrowth and synaptic remodeling. It also plays roles in epithelial polarity and vesicle trafficking, influencing processes such as nutrient uptake and receptor internalization. Dysregulation of MYO1B has been linked to cancer progression, where altered actin dynamics promote invasion and metastasis. By using MYO1B antibody, scientists can evaluate how myosin IB expression changes in development and disease.

In kidney physiology, MYO1B regulates endocytic pathways that control protein reabsorption. Defects in this process may contribute to renal disorders. In cancer research, increased MYO1B activity has been associated with enhanced migratory capacity of tumor cells. Detecting MYO1B with specific antibodies provides insight into how actin motor proteins contribute to both physiological and pathological outcomes.

MYO1B antibody from NSJ Bioreagents is a dependable reagent for investigating actin based motor proteins, vesicle trafficking, and cytoskeletal regulation. Its specificity supports studies across cell biology, neuroscience, and cancer research.

Application Notes

Optimal dilution of the MYO1B antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human MYO1B was used as the immunogen for the MYO1B antibody.

Storage

Store the MYO1B antibody at -20oC.

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