

Myosin Ib (H-70): sc-66981

BACKGROUND

Actin is a highly conserved protein that is expressed in all eukaryotic cells. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. Troponin facilitates interaction between Actin and Myosin by binding to Ca^{2+} . Troponin is made up of at least two subunits, which are divergent in cardiac muscle, fast skeletal muscle and slow skeletal muscle. Myosin is a hexamer of two heavy chains (MHC) and four light chains (MLC) that interacts with Actin to generate the force for diverse cellular movements, including cytokinesis, phagocytosis and muscle contraction. Myosin Ib (MYO1B), also designated Myosin I α or MYH-1c, is a motor protein that is involved in cell migration, neurite outgrowth and vesicular transport. In multivesicular endosomes, Myosin Ib has been implicated in protein cargo traffic control.

CHROMOSOMAL LOCATION

Genetic locus: MYO1B (human) mapping to 2q32.3; Myo1b (mouse) mapping to 1 C1.1.

SOURCE

Myosin Ib (H-70) is a rabbit polyclonal antibody raised against amino acids 1067-1136 mapping at the C-terminus of Myosin Ib of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Myosin Ib (H-70) is recommended for detection of Myosin Ib of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Myosin Ib (H-70) is also recommended for detection of Myosin Ib in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Myosin Ib siRNA (h): sc-44600, Myosin Ib siRNA (m): sc-44601, Myosin Ib shRNA Plasmid (h): sc-44600-SH, Myosin Ib shRNA Plasmid (m): sc-44601-SH, Myosin Ib shRNA (h) Lentiviral Particles: sc-44600-V and Myosin Ib shRNA (m) Lentiviral Particles: sc-44601-V.

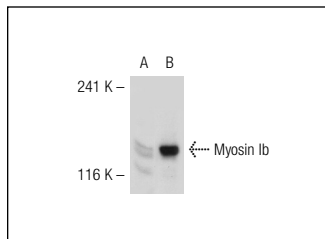
Molecular Weight of Myosin Ib: 132 kDa.

Positive Controls: Myosin Ib (h): 293T Lysate: sc-116536 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Myosin Ib (H-70): sc-66981. Western blot analysis of Myosin Ib expression in non-transfected: sc-117752 (A) and human Myosin Ib transfected: sc-116536 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Chen, Y.F., et al. 2009. Motor protein-dependent membrane trafficking of KCl cotransporter-4 is important for cancer cell invasion. *Cancer Res.* 69: 8585-8593.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Myosin Ib (F-8): sc-393053**, our highly recommended monoclonal alternative to Myosin Ib (H-70).