**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. Myosin is a hexamer of two heavy chains (abbreviated as MYH or MHC) and four light chains (MLC) that interacts with Actin to generate the force for diverse cellular movements, including cytokinesis, phagocytosis and muscle contraction. MYH10 is also designated Myosin Iib, Myosin-10, NMHC-1IIB, nonmuscle myosin heavy chain Iib or cellular myosin heavy chain, type B. MYH10 is involved in cell shape, cytokinesis and specialized functions such as capping and secretion. It is expressed in leukocytes and in glomeruli in the kidney.

**CHROMOSOMAL LOCATION**

Genetic locus: MYH10 (human) mapping to 17p13.1; Myh10 (mouse) mapping to 11 B3.

**SOURCE**

MYH10 (A-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-27 at the N-terminus of myosin heavy chain 10 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376954 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

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

**APPLICATIONS**

MYH10 (A-5) is recommended for detection of myosin heavy chain 10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein [1 ml of cell lysate]), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MYH10 (A-5) is also recommended for detection of myosin heavy chain 10 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for MYH10 siRNA (h): sc-61122, MYH10 siRNA (m): sc-61123, MYH10 shRNA Plasmid (h): sc-61122-SH, MYH10 shRNA Plasmid (m): sc-61123-SH, MYH10 shRNA (h) Lentiviral Particles: sc-61122-V and MYH10 shRNA (m) Lentiviral Particles: sc-61123-V.

Molecular Weight of MYH10: 200 kDa.


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

MYH10 (A-5): sc-376954. Western blot analysis of MYH10 expression in IMR-32 whole cell lysate (A) and mouse brain (B) and rat brain (C) tissue extracts.


**SELECTION PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

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