

Myosin Ig (N-18): sc-32714

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. MYO1G, the gene encoding for the Myosin Ig protein, maps to chromosome 7p13.

REFERENCES

1. Pierce, R.A., Field, E.D., Mutis, T., Golovina, T.N., Von Kap-Herr, C., Wilke, M., Pool, J., Shabanowitz, J., Pettenati, M.J., Eisenlohr, L.C., Hunt, D.F., Goulmy, E. and Engelhard, V.H. 2001. The HA-2 minor histocompatibility antigen is derived from a diallelic gene encoding a novel human class I myosin protein. *J. Immunol.* 167: 3223-3230.
2. Dumont, R.A., Zhao, Y.D., Holt, J.R., Bahler, M. and Gillespie, P.G. 2002. Myosin I isozymes in neonatal rodent auditory and vestibular epithelia. *J. Assoc. Res. Otolaryngol.* 3: 375-389.
3. Wilke, M., Pool, J. and Goulmy, E. 2002. Allele specific PCR for the minor histocompatibility antigen HA-2. *Tissue Antigens* 59: 304-307.
4. <http://harvester.embl.de/harvester/Q96B/Q96BE2.htm>

CHROMOSOMAL LOCATION

Genetic locus: MYO1G (human) mapping to 7p13; Myo1g (mouse) mapping to 11 A1.

SOURCE

Myosin Ig (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Myosin Ig 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.

Blocking peptide available for competition studies, sc-32714 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

PROTOCOLS

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

APPLICATIONS

Myosin Ig (N-18) is recommended for detection of Myosin Ig of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Ig (N-18) is also recommended for detection of Myosin Ig in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Myosin Ig siRNA (h): sc-44621, Myosin Ig siRNA (m): sc-44622, Myosin Ig shRNA Plasmid (h): sc-44621-SH, Myosin Ig shRNA Plasmid (m): sc-44622-SH, Myosin Ig shRNA (h) Lentiviral Particles: sc-44621-V and Myosin Ig shRNA (m) Lentiviral Particles: sc-44622-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.