

# MYH10 (N-17): sc-47205

## 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 II $\beta$ , Myosin-10, NMMHC-IIb, non-muscle 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.

## REFERENCES

1. Simons, M., et al. 1991. Human nonmuscle myosin heavy chains are encoded by two genes located on different chromosomes. *Circ. Res.* 69: 530-539.
2. Aikawa, M., et al. 1993. Human smooth muscle myosin heavy chain isoforms as molecular markers for vascular development and atherosclerosis. *Circ. Res.* 73: 1000-1012.

## CHROMOSOMAL LOCATION

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

## SOURCE

MYH10 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of myosin heavy chain 10 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-47205 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MYH10 (N-17) is recommended for detection of myosin heavy chain 10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

MYH10 (N-17) is also recommended for detection of myosin heavy chain 10 in additional species, including equine, canine, bovine and avian.

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.

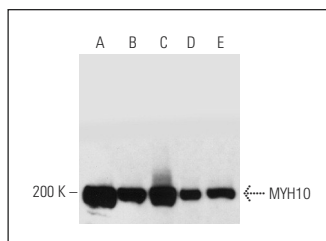
Molecular Weight of MYH10: 200 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SK-N-SH cell lysate: sc-2410 or rat brain extract: sc-2392.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MYH10 (N-17): sc-47205. Western blot analysis of MYH10 expression in A10 (A), IMR-32 (B) and SK-N-SH (C) whole cell lysates and rat brain (D) and mouse brain (E) tissue extracts.

## SELECT PRODUCT CITATIONS

1. Bond, J.E., et al. 2011. Angiotensin-II mediates nonmuscle myosin II activation and expression and contributes to human keloid disease progression. *Mol. Med.* 17: 1196-1203.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **MYH10 (A-3): sc-376942** or **MYH10 (A-5): sc-376954**, our highly recommended monoclonal alternatives to MYH10 (N-17).