

MYH13 (S-16): sc-165053

BACKGROUND

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 muscle contraction, cytokinesis and phagocytosis. MYH13 (myosin heavy chain 13), also known as Myosin-13 or MyHC-*eo* (myosin heavy chain, skeletal muscle, extraocular), is a 1,938 amino acid protein that localizes to thick filaments of myofibrils where it plays a role in muscle contraction. The gene encoding MYH13 maps to human chromosome 17p13.1 and mouse chromosome 11 B3. Chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, and is linked to pre-disposition of cancers of the ovary, colon, prostate gland and fallopian tubes.

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CHROMOSOMAL LOCATION

Genetic locus: MYH13 (human) mapping to 17p13.1; Myh13 (mouse) mapping to 11 B3.

SOURCE

MYH13 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of myosin heavy chain 13 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-165053 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MYH13 (S-16) is recommended for detection of myosin heavy chain 13 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); non cross-reactive with other MYH family members.

MYH13 (S-16) is also recommended for detection of myosin heavy chain 13 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Myosin-13 siRNA (h): sc-94153, MYH13 siRNA (m): sc-149738, Myosin-13 shRNA Plasmid (h): sc-94153-SH, MYH13 shRNA Plasmid (m): sc-149738-SH, Myosin-13 shRNA (h) Lentiviral Particles: sc-94153-V and MYH13 shRNA (m) Lentiviral Particles: sc-149738-V.

Molecular Weight of MYH13: 223 kDa.

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.

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.



Try **MYH (B-5): sc-376157**, our highly recommended monoclonal alternative to MYH13 (S-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MYH (B-5): sc-376157**.