SANTA CRUZ BIOTECHNOLOGY, INC.

MYL6B (S-14): sc-103645

BACKGROUND

MYL6B (Myosin light chain 6B) is a heavy chain regulator found in smooth muscle and non-muscle Myosin complexes. Three general classes of Myosin have been cloned: smooth muscle Myosins, striated muscle Myosins and non-muscle Myosins. Contractile activity in smooth muscle is regulated by the calcium/calmodulin-dependent phosphorylation of Myosin light chain by Myosin light chain kinase. Myosin heavy chains are encoded by the MYH gene family and have Actin-activated ATPase activity which generates the motor function of Myosin. Although it contains three of the EF-hand domains common to Actin and other Myosin regulating proteins, MYL6B does not bind calcium during contraction. It is primarily found in a hexamer consisting of four light chains and two heavy chains. It most commonly interacts with Myosin Va, an Actin based motor that can move in large steps. MYL6B is expressed in most tissues with neurons and smooth muscle tissue having the highest expression.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MYL6B (human) mapping to 12q13.2.

STORAGE

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

SOURCE

MYL6B (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MYL6B of mouse 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-103645 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MYL6B (S-14) is recommended for detection of MYL6B of human and rat 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).

Suitable for use as control antibody for MYL6B siRNA (h): sc-95969, MYL6B shRNA Plasmid (h): sc-95969-SH and MYL6B shRNA (h) Lentiviral Particles: sc-95969-V.

Positive Controls: MYL6B (h): 293 Lysate: sc-113030 or K-562 whole cell lysate: sc-2203.

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.

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.