

p-MYL9 (Thr 18/Ser 19): sc-12896

BACKGROUND

Myosin is a highly conserved, ubiquitously expressed protein that interacts with actin to generate the force for cellular movements. Conventional myosins are hexameric proteins consisting of two heavy chain subunits, a pair of non-phosphorylatable light chain subunits and a pair of phosphorylatable light chain subunits. Three general classes of myosin have been cloned: smooth muscle myosins, striated muscle myosins and non-muscle myosins. Myosin light chain 9, which is encoded by MYL9, is one of the numerous regulatory myosin light chains. Regulatory myosin light chains, also known as MLCs, regulate contraction in smooth muscle and non-muscle cells via phosphorylation by myosin light chain kinase (MLCK). Phosphorylation of regulatory myosin light chains is catalyzed by MLCK in the presence of calcium and calmodulin and it increases the actin-activated myosin ATPase activity, thereby regulating the contractile activity. Myosin light chain is also located in striated skeletal muscle, where its function remains undefined.

SOURCE

p-MYL9 (Thr 18/Ser 19) is available as either goat (sc-12896) or rabbit (sc-12896-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Thr 18 and Ser 19 dually phosphorylated MYL9 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-12896 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-MYL9 (Thr 18/Ser 19) is recommended for detection of Thr 18 and Ser 19 dually phosphorylated MYL9, nonsarcomeric and smooth muscle isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); also recommended for detection of correspondingly phosphorylated MRCL2 and MRCL3 of human origin and Mylc2b of mouse and rat origin.

p-MYL9 (Thr 18/Ser 19) is also recommended for detection of correspondingly dually phosphorylated MYL9, nonsarcomeric and smooth muscle isoforms in additional species, including equine, porcine and avian.

Molecular Weight of p-MYL9: 18-20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse intestine extract: sc-364252.

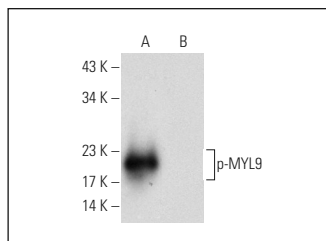
STORAGE

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.

DATA



p-MYL9 (Thr 18/Ser 19): sc-12896. Western blot analysis of MYL9 phosphorylation in untreated (A) and lambda protein phosphatase treated (B) mouse intestine tissue extracts.

SELECT PRODUCT CITATIONS

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