

MYLK2 (R-270): sc-50515

BACKGROUND

The Ca²⁺/calmodulin-dependent protein kinases (CaM kinases) are a structurally related subfamily of serine/threonine kinases that includes CaMKI, CaMKII, CaMKIV and myosin light chain kinases (MLCKs). MLCK isoforms include non-muscle MLCK, smooth muscle MLCK and skeletal muscle MLCK (MLCK_{SK}). Smooth muscle MLCK, non-muscle MLCK and telokin are produced by alternative initiation of the same gene. Non-muscle MLCK is expressed in human frontal and entorhinal cortex and in hippocampus. MLCK appears to be a target for PAKs (p21-activated kinases). PAK1 interaction with MLCK results in a decrease in MLCK activity and myosin light chain phosphorylation.

REFERENCES

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6. Potier, M.C., et al. 1995. The human myosin light chain kinase (MLCK) from hippocampus: cloning, sequencing, expression, and localization to 3qcen-q21. *Genomics* 29: 562-570.
7. Garcia, J.G., et al. 1997. Myosin light chain kinase in endothelium: molecular cloning and regulation. *Am. J. Respir. Cell. Mol. Biol.* 16: 489-494.
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CHROMOSOMAL LOCATION

Genetic locus: Mylk2 (mouse) mapping to 2 H1.

SOURCE

MYLK2 (R-270) is a rabbit polyclonal antibody raised against amino acids 1-270 mapping at the N-terminus of MYLK2 of rat origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

MYLK2 (R-270) is recommended for detection of MYLK2 of rat and, to a lesser extent, mouse 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).

Suitable for use as control antibody for MYLK2 siRNA (m): sc-72101, MYLK2 shRNA Plasmid (m): sc-72101-SH and MYLK2 shRNA (m) Lentiviral Particles: sc-72101-V.

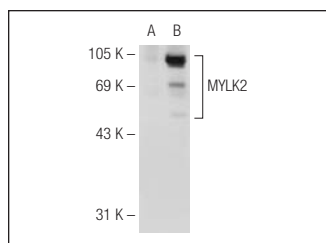
Molecular Weight of MYLK2: 79 kDa.

Positive Controls: MYLK2 (m): 293 Lysate: sc-178974 or L8 cell lysate: sc-3807.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MYLK2 (R-270): sc-50515. Western blot analysis of MYLK2 expression in non-transfected: sc-110760 (A) and mouse MYLK2 transfected: sc-178974 (B) 293 whole cell lysates.

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.