



MYH11 (m): 293T Lysate: sc-121881

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 (such as MYH11), striated muscle Myosins and non-muscle Myosins. Contractile activity in smooth muscle is regulated by the calcium/calmodulin-dependent phosphorylation of Myosin light chain (MLC) by Myosin light chain kinase. Myosin heavy chains, encoded by the MYH gene family, contain Actin-activated ATPase activity which generates the motor function of Myosin. Myosin heavy chains were initially isolated from a human fetal skeletal muscle and are the major determinant in the speed of contraction of skeletal muscle. Various isoforms of myosin heavy chains are differentially expressed depending on the functional activity of the muscle.

REFERENCES

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4. Cheney, R.E., et al. 1993. Phylogenetic analysis of the myosin superfamily. *Cell Motil. Cytoskeleton* 24: 215-223.
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8. Horowitz, A., et al. 1996. Mechanisms of smooth muscle contraction. *Physiol. Rev.* 76: 967-1003.
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CHROMOSOMAL LOCATION

Genetic locus: Myh11 (mouse) mapping to 16 A1.

PRODUCT

MYH11 (m): 293T Lysate represents a lysate of mouse MYH11 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

MYH11 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MYH11 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.