

MYL7 (h): 293T Lysate: sc-114113

BACKGROUND

Encoded by the MYL7 gene, myosin regulatory light chain 7, also designated Myosin regulatory light chain 2, atrial isoform (MLC-2a), is part of a hexameric complex of two heavy chains and four light chains predominantly expressed in adult atrial muscle. Myosin regulatory light chain 7 binds calcium and has been shown to be a useful molecular marker for cardiac chamber specification. The co-expression of myosin regulatory light chain 7 and myosin light chain 2 (MLC2v) in the outflow tract and atrioventricular canal, together with the single expression in the atrial (MYL7) and ventricular (MYL2) myocardium, permits the delineation of their boundaries. At the amino acid level there is 95% homology between the human and mouse myosin regulatory light chain 7 sequences.

REFERENCES

1. Kubalak, S.W., et al. 1994. Chamber specification of atrial MLC2 expression precedes septation during murine cardiogenesis. *J. Biol. Chem.* 269: 16961-16970.
2. Gruber, P.J., et al. 1998. Downregulation of atrial markers during cardiac chamber morphogenesis is irreversible in murine embryos. *Development* 125: 4427-4438.
3. Franco, D., et al. 1999. MLC2a and MLC2v identifies the embryonic outflow tract myocardium in the developing rodent heart. *Anat. Rec.* 254: 135-146.
4. Doevendans, P.A., et al. 2000. The murine atrial MLC2 gene: a member of an evolutionarily conserved family of contractile proteins. *Cytogenet. Cell Genet.* 90: 248-252.
5. Nishigaki, R., et al. 2002. An extra human chromosome 21 reduces MLC2a expression in chimeric mice and Down syndrome. *Biochem. Biophys. Res. Commun.* 295: 112-118.

CHROMOSOMAL LOCATION

Genetic locus: MYL7 (human) mapping to 7p13.

PRODUCT

MYL7 (h): 293T Lysate represents a lysate of human MYL7 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

MYL7 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MYL7 antibodies. Recommended use: 10-20 µl per lane.

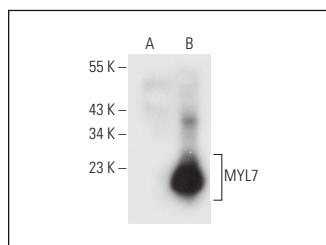
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MYL7 (B-10): sc-365255 is recommended as a positive control antibody for Western Blot analysis of enhanced human MYL7 expression in MYL7 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

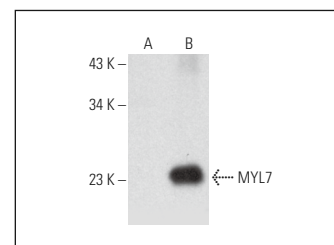
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MYL7 (B-10): sc-365255. Western blot analysis of MYL7 expression in non-transfected: sc-117752 (A) and human MYL7 transfected: sc-114113 (B) 293T whole cell lysates.



MYL7 (D-9): sc-515026. Western blot analysis of MYL7 expression in non-transfected: sc-117752 (A) and human MYL7 transfected: sc-114113 (B) 293T whole cell lysates.

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.