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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

MYLK2 (m): 293 Lysate: sc-178974

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Myosin, the major component of thick muscle filaments, is a long asymmetric molecule containing a globular head and a long tail. Activation of smooth and cardiac muscle primarily involves pathways which increase calcium and Myosin phosphorylation resulting in contraction. Myosin in vertebrate striated muscle is composed of two heavy chains and four light chains. There are two distinct types of light chains: the phosphorylatable, regulatory or MLC2 type; and the nonphosphorylatable, alkali or MLC1 and MLC3 types. Myosin light chain phosphatase acts to regulate muscle contraction by dephosphorylating activated Myosin light chain. The role of Myosin alkali light chains in vertebrate skeletal muscle is poorly understood, although alkali light chains in smooth muscle may be involved with the active site of Myosin. Several isoforms of Myosin alkali light chains have been identified; each is associated with different muscle types and is encoded by a family of Myosin light chain genes. Human Myosin light chain has application as a cardiac marker. The human MLC1 gene maps to the same region in which the IDH1 (isocitrate dehydrogenase) gene is located. The MLC1 locus is closely linked to IDH1 on chromosome 1 in mouse, thus indicating that this is a conserved linkage.

REFERENCES

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3. Cohen-Haguenauer, O., et al. 1988. Assignment of the human fast skeletal muscle Myosin alkali light chains gene (MLC1F/MLC3F) to 2q 32.1-2qter. Hum. Genet. 78: 65-70.
4. Castaneda, F., et al. 1990. Perineal abscess after prostatic urethroplasty with balloon catheter: report of a case. Radiology 174: 49-50.
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6. Sanbe, A., et al. 1999. Abnormal cardiac structure and function in mice expressing nonphosphorylatable cardiac regulatory Myosin light chain 2. J. Biol. Chem. 274: 21085-21094.
7. Davis, J.S., et al. 2001. The overall pattern of cardiac contraction depends on a spatial gradient of Myosin regulatory light chain phosphorylation. Cell 107: 631-641.
8. Yamashita, H., et al. 2003. Myosin light chain isoforms modify force-generating ability of cardiac Myosin by changing the kinetics of actin-myosin interaction. Cardiovasc. Res. 60: 580-588.
9. Bicer, S. and Reiser, P.J. 2003. Myosin light chain 1 isoforms in slow fibers from global and orbital layers of canine rectus muscles. Invest. Ophthalmol. Vis. Sci 45: 138-143.

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.

CHROMOSOMAL LOCATION

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

PRODUCT

MYLK2 (m): 293 Lysate represents a lysate of mouse MYLK2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MYLK2 (m): 293 Lysate is suitable as a Western Blotting positive control for mouse reactive MYLK2 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 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.