3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-LMOD1 antibody, Mouse monoclonal
clone LMOD1-12, purified from hybridoma cell culture

Catalog Number **SAB4200496**

Product Description

Anti-LMOD1 (mouse IgG2a isotype) is derived from the hybridoma LMOD1-12 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the N-terminal region of human LMOD1 (GeneID: 25802), conjugated to KLH. The corresponding sequence is identical in mouse, rat, monkey, bovine and canine LMOD1. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-LMOD1 recognizes human and rat LMOD1. The antibody may be used in various immunochemical techniques including immunoblotting (~70 kDa) and immunoprecipitation. Detection of the LMOD1 band by immunoblotting is specifically inhibited by the immunizing peptide.

Leiomodin 1 (LMOD1/SM-Lmod) is an actin filament nucleator in muscle cells. LMOD1 is a larger homolog of tropomodulin, a tropomyosin-binding, actin-capping protein. LMOD1 contains two actin-binding sites located at the N-terminal domain and the leucine-rich repeat domain, and a C-terminal domain with a short poly-proline region and an actin-binding Wiskott-Aldrich syndrome protein (WASP)-homology 2 (WH2) domain. LMOD1 also contains a tropomyosin-binding site in its N-terminal region. LMOD1 is expressed in all tissues tested that contain smooth muscle. LMOD1 is found near the pointed ends of the actin filaments and is involved in sarcomere assembly and organization. Its knockdown results in sarcomere disruption. Increased expression of LMOD1 may be linked to Graves' disease and thyroid-associated ophthalmopathy.[1-5]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at −20 °C in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.1-0.2 µg/mL is recommended using whole extracts of HEK-293T cells overexpressing LMOD1.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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3. Kostyukova, A.S., *Arch. Biochem. Biophys.*, **465**, 227-230 (2007).
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RC,ST,PHC 04/21-1