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
produced in rabbit, affinity isolated antibody

Product Number **SAB4200200**

Product Description

Anti-LMOD1 is developed in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human LMOD1 (GeneID: 25802), conjugated to KLH. The corresponding sequence is identical in mouse, rat, monkey, bovine, and canine LMOD1. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-LMOD1 recognizes human, mouse, and rat LMOD1. The antibody may be used in several immunochemical techniques including immunoblotting (~72 kDa) and immunohistochemistry. 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 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 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 dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2.5-5.0 μg/mL is recommended using whole extracts of rat H9C2 cells.

Immunohistochemistry: an antibody working concentration of 10-20 μg/mL is recommended using heat-retrieved formalin-fixed, paraffin-embedded human and mouse intestine sections and biotin/ExtrAvidin®-Peroxidase staining system.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Chereau, D., et al., *Science*, **320**, 239-243 (2008).
2. Conley, C.A., *Am. J. Physiol. Cell Physiol.*, **280**, C1645-C1656 (2001).
3. Kostyukova, A.S., *Arch. Biochem. Biophys.*, **465**, 227-230 (2007).
4. Conley, C.A., et al., *Genomics*, **73**, 127-139 (2001).
5. Dong, Q., et al., *J. Clin. Endocrinol. Metab.*, **72**, 1375-1381 (1991).

ExtrAvidin is a registered trademark of Sigma-Aldrich Co. LLC.

VS,ST,TD,KAA,PHC,MAM 07/19-1