Datasheet for ABIN129691

anti-Myosin antibody (AA 12-27)

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Overview

Quantity:	100 µg
Target:	Myosin
Binding Specificity:	AA 12-27
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Myosin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 12-27 of human myosin light chain protein.
Isotype:	IgG
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	Myosin
Abstract:	Myosin Products

Target Details

Background:	Myosin is the major component of thick muscle filaments, and is a long asymmetric molecule containing a globular head and a long tail. The molecule consists of two heavy chains each ~200,000 daltons, and four light chains each ~16,000 - 21,000 daltons. Activation of smooth and cardiac muscle primarily involves pathways that increase calcium and myosin phosphorylation resulting in contraction. Myosin light chain phosphatase acts to regulate muscle contraction by dephosphorylating activated myosin light chain. The selected peptide sequence used to generate the polyclonal antibody is located near the amino terminal end of the polypeptide corresponding to the smooth/non-muscle form of myosin regulatory light chain found in cardiac myocytes in addition to smooth and non-muscle cells. This sequence differs from that of the sarcomeric/ Synonyms: Myosin regulatory light polypeptide 9 Myosin regulatory light chain 9 Myosin regulatory light chain MRLC1 Myosin regulatory light chain 2, smooth muscle isoform Myosin RLC MLC-2C 20 kDa myosin light chain
Gene ID:	98932, 38605043
UniProt:	P24844

Application Details

Application Notes:	This affinity-purified antibody was tested by ELISA and immunoblotting and was found to be reactive with both the unphosphorylated and mono-phosphorylated forms of the protein. Although not tested, this antibody is likely functional in immunohistochemistry and immunoprecipitation.
Restrictions:	For Research Use only

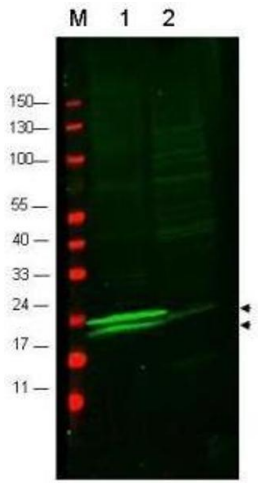
Handling

Format:	Liquid
Concentration:	0.71 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Publications

Product cited in:	Maloverjan, Piirsoo, Kasak, Peil, Østerlund, Kogerman: "Dual function of UNC-51-like kinase 3 (Ulk3) in the Sonic hedgehog signaling pathway." in: **The Journal of biological chemistry**, Vol. 285, Issue 39, pp. 30079-90, (2010) (PubMed).

Images



Western Blotting

Image 1. Western blot using anti-RLC of Smooth and Non-muscle Myosin antibody to detect vascular myosin (rat aorta, lane 1) but not cardiac myosin (mouse heart, lane2). Each lane was loaded with 35 ?g of lysate. Arrowheads indicate the detection of both mono-phosphorylated (upper) and unphosphorylated (lower) forms of the protein. After blocking with 5% NGS and 0.5% BLOTTO in PBS, the membrane was probed with the primary antibody diluted in blocking buffer to 1:600 for 2 h at room temperature. The membrane was washed and reacted with a 1:10,000 dilution of conjugated Gt-a-Rabbit IgG [H&L] MX for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red).800 fluorescence image was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.