

Rabbit MRLC1 Polyclonal Antibody | anti-MRLC1 antibody

Phospho-MRLC1 (Thr19+Ser20) Antibody

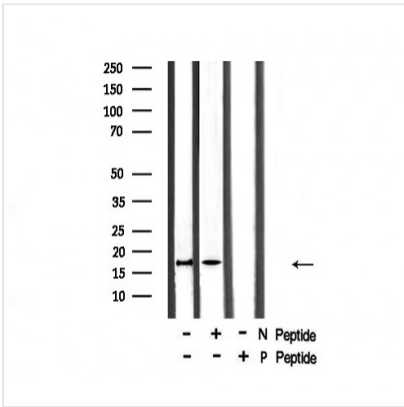
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329619	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)	ELISA, Western Blot

PRODUCT SYNONYMS

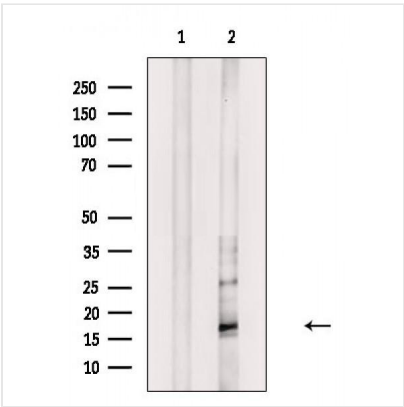
MRLC1; Polyclonal Antibody; Phospho-MRLC1 (Thr19+Ser20) Antibody; 20kDa myosin light chain; Human 20kDa myosin light chain (MLC2) mRNA complete cds; LC20; MGC3505; MLC 2; MLC-2C; MLC2; MYL 9; MRLC1; MYL9; MYL9_HUMAN; Myosin light chain 9 regulatory; Myosin light polypeptide 9 regulatory; myosin regulatory light chain 1; Myosin regulatory light chain 2; Myosin regulatory light chain 2 smooth muscle isoform; Myosin regulatory light chain 9; Myosin regulatory light chain MRLC1; Myosin regulatory light polypeptide 9; Myosin RLC; Myosin vascular smooth muscle light chain 2; MYRL2; OTTHUMP00000030857; smooth muscle isoform; anti-MRLC1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-MRLC1 (Thr19+Ser20) Antibody detects endogenous levels of MRLC1 only when phosphorylated at Thr19+Ser20. Tissue Specificity: Smooth muscle tissues and in some, but not all, nonmuscle cells.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MRLC1 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MRLC1 around the phosphorylation site of Thr19+Ser20.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation increases the actin-activated myosin ATPase activity and thereby regulates the contractile activity. It is required to generate the driving force in the migration of the cells but not necessary for localization of myosin-2 at the leading edge.
Subunit Structure	Myosin is a hexamer of 2 heavy chains and 4 light chains: interacts with myosin heavy chain MYO19.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of Phospho-MRLC1 (Thr19+Ser20) using HepG2 whole cell lysates. -/+ means absence or presence of N peptide (non-phospho peptide) and P peptide (phospho peptide).



WB (Western Blot)
Western blot analysis of extracts from Mouse kidney, using Phospho-MRLC1 (Thr19+Ser20) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-MRLC1 antibody	Myosin regulatory subunit that plays an important role in regulation of both smooth muscle and nonmuscle cell contractile activity via its phosphorylation. Implicated in cytokinesis, receptor capping, and cell locomotion. Myosin is composed of six polypeptide chains: two identical heavy chains and two pairs of light chains. Myosin light chain 2 (MLC2), also known as myosin regulatory light chain (MRLC), RLC, or LC20, has many isoforms depending on its distribution. In smooth muscle, MLC2 is phosphorylated at Thr18 and Ser19 by myosin light chain kinase (MLCK) in a Ca2+/calmodulin-dependent manner (1). This phosphorylation is correlated with myosin ATPase activity and smooth muscle contraction (2). ROCK also phosphorylates Ser19 of smooth muscle MLC2, which regulates the assembly of stress fibers (3). Phosphorylation of smooth muscle MLC2 at Ser1/Ser2 and Ser9 by PKC and cdc2 has been reported to inhibit myosin ATPase activity (4,5). Phosphorylation by cdc2 controls the timing of cytokinesis (5). Transgenic mice lacking phosphorylation sites on the cardiac muscle isoform show morphological and functional abnormalities (6).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	31563524
NCBI GeneID	10398
NCBI Accession #	NP_852667.1
NCBI GenBank Nucleotide #	NM_181526.2
UniProt Accession #	P24844; Q9BQL9; Q9BUF9; Q9H136; E1P5T6
Molecular Weight	19,827 Da
NCBI Official Full Name	myosin regulatory light polypeptide 9 isoform b
NCBI Official Synonym Full Names	myosin, light chain 9, regulatory
NCBI Official Symbol	MYL9
NCBI Official Synonym Symbols	LC20; MLC2; MRLC1; MYRL2; MLC-2C
NCBI Protein Information	myosin regulatory light polypeptide 9; myosin RLC; 20 kDa myosin light chain; myosin regulatory light chain 1; myosin regulatory light chain 9; myosin regulatory light chain MRLC1; myosin, light polypeptide 9, regulatory; myosin regulatory light chain 2,
UniProt Protein Name	Myosin regulatory light polypeptide 9
UniProt Gene Name	MYL9
UniProt Synonym Gene Names	MLC2; MRLC1; MYRL2; LC20

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mrlc1-antibody-peptide-elisa-western-blot-elisa/329619>