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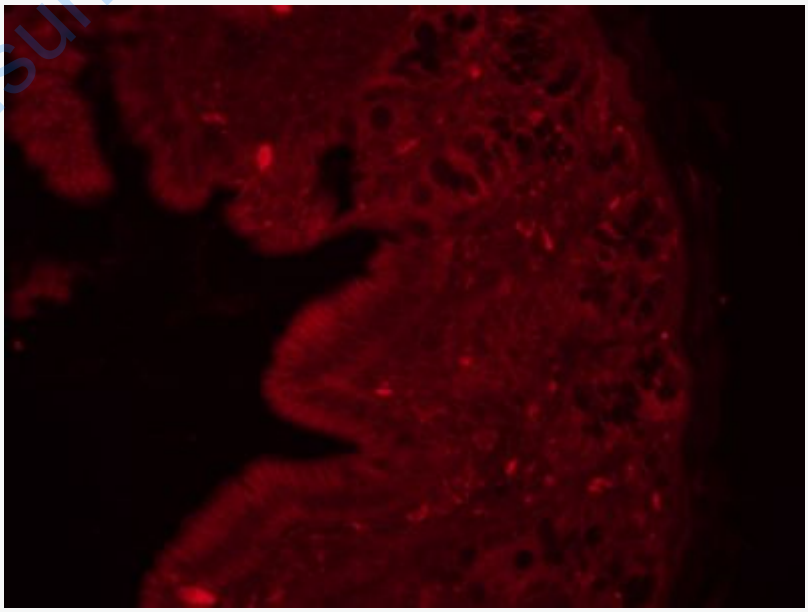
Rabbit Anti-MLCK antibody

SL4705R

Product Name:	MLCK
Chinese Name:	肌球蛋白轻链激酶抗体
Alias:	myosin light chain kinase; DKFZp686I10125; EC 2.7.11.18; FLJ12216; Kinase related protein; KRP; MLCK; MLCK1; MLCK108; MLCK210; MSTP083; MYLK; MYLK1; Myosin light chain kinase smooth muscle and non muscle isozymes; Myosin light polypeptide kinase; OTTHUMP00000180642; OTTHUMP00000180643; smMLCK; Smooth muscle myosin light chain kinase; Telokin; deglutamylated form; MLCK; MYLK_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Sheep,Guinea Pig,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	210kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MLCK:651-475/1914
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene, a muscle member of the immunoglobulin gene superfamily, encodes myosin light chain kinase which is a calcium/calmodulin dependent enzyme. This kinase

	phosphorylates myosin regulatory light chains to facilitate myosin interaction with actin filaments to produce contractile activity. This gene encodes both smooth muscle and nonmuscle isoforms. In addition, using a separate promoter in an intron in the 3' region, it encodes telokin, a small protein identical in sequence to the C-terminus of myosin light chain kinase, that is independently expressed in smooth muscle and functions to stabilize unphosphorylated myosin filaments. A pseudogene is located on the p arm of chromosome 3. Four transcript variants that produce four isoforms of the calcium/calmodulin dependent enzyme have been identified as well as two transcripts that produce two isoforms of telokin. Additional variants have been identified but lack full length transcripts. [provided by RefSeq]. **Function:** Calcium/calmodulin-dependent enzyme implicated in smooth muscle contraction via phosphorylation of myosin light chains (MLC). Also regulates actin-myosin interaction through a non-kinase activty (By similarity). Implicated in the regulation of endothelial as well as vascular permeability. In the nervous system it has been shown to control the growth initiation of astrocytic processes in culture and to participate in transmitter release at synapses formed between cultured sympathetic ganglion cells. Critical participant in signaling sequences that result in fibroblast apoptosis. **Tissue Specificity:** Smooth muscle and non-muscle isozymes are expressed in a wide variety of adult and fetal tissues and in cultured endothelium with qualitative expression appearing to be neither tissue- nor development-specific. Non-muscle isoform 2 is the dominant splice variant expressed in various tissues. Telokin has been found in a wide variety of adult and fetal tissues. **Post-translational modifications:** MLCK is probably down-regulated by phosphorylation. The C-terminus is deglutamylated by AGTPBP1/ CCP1, AGBL1/CCP4 and AGBL4/CCP6, leading to the formation of Myosin light chain kinase, smooth muscle, deglutamylated form. The consequences of C-terminal deglutamylation are unknown. **Similarity:** Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. Contains 1 fibronectin type-III domain. Contains 9 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain. **SWISS:** Q15746 **Gene ID:** 4638 **Database links:**

	Entrez Gene: 4638 Human Entrez Gene: 107589 Mouse Entrez Gene: 288057 Rat Omim: 600922 Human SwissProt: Q15746 Human SwissProt: Q6PDN3 Mouse Unigene: 477375 Human Unigene: 33360 Mouse Unigene: 203004 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. 肌球蛋白轻链激酶(MLCK)表达量增多和活性升高是血管平滑肌收缩的启动因素之一。
Picture:	 Tissue/cell: rat colon tissue;4% Paraformaldehyde-fixed and paraffin-embedded;

	Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-MLCK Polyclonal Antibody, Unconjugated(SL4705R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(SL4705R)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei