

bs-4705R**[Primary Antibody]****MLCK Rabbit pAb****BioSS**
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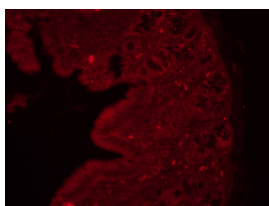
— DATASHEET —**Host:** Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 4638**SWISS:** Q15746**Target:** MLCK**Immunogen:** KLH conjugated synthetic peptide derived from human MLCK: 651-750/1914.**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

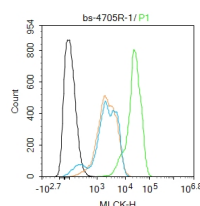
Background: This gene, a muscle member of the immunoglobulin gene superfamily, encodes myosin light chain kinase which is a calcium/calmodulin dependent enzyme. This kinase phosphorylates myosin regulatory light chains to facilitate myosin interaction with actin filaments to produce contractile activity. 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].

Applications: IHC-P (1:100-500)**IHC-F** (1:100-500)**IF** (1:100-500)**Flow-Cyt** (1ug/Test)**Reactivity:** Human, Rat

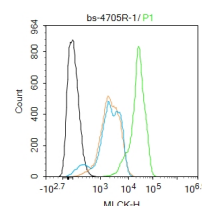
(predicted: Mouse, Pig, Sheep, Cow, Chicken, Dog, GuineaPig, Horse)

Predicted MW.: 210 kDa**Subcellular Location:** Cytoplasm**— VALIDATION IMAGES —**

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°C for 20 min; Incubation: Anti-MLCK Polyclonal Antibody, Unconjugated(bs-4705R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(bs-0295G-Cy3)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei



Blank control (black line) :HepG2. Primary Antibody (green line): Rabbit Anti-MLCK antibody (bs-4705R) Dilution:1ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-AF488 Dilution: 0.5ug/Test. Isotype control (orange line) : Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



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— SELECTED CITATIONS —

- **[IF=8.713]** Zhao-Bo Luo. et al. Fecal transplant from myostatin deletion pigs positively impacts the gut-muscle axis. ELIFE. 2023; 12: e81858 WB ;Mouse. 37039469
- **[IF=5.988]** Zipeng Gong. et al. Pharmacokinetic Differences of Wuji Pill Components in Normal and Chronic Visceral Hypersensitivity Irritable Bowel Syndrome Rats Attributable to Changes in Tight Junction and Transporters. FRONT PHARMACOL. 2022; 13: 948678 IHC,IF ;Rat. 35873589
- **[IF=5.561]** Lei Wu. et al. Ethanol Extract of Mao Jian Green Tea Attenuates Gastrointestinal Symptoms in a Rat Model of Irritable Bowel Syndrome with Constipation via the 5-hydroxytryptamine Signaling Pathway. FOODS. 2023 Jan;12(5):1101 WB ;Rat. 36900618
- **[IF=4.658]** Hu S et al. Down - regulation of miR - 200c attenuates AngII - induced cardiac hypertrophy via targeting the MLCK - mediated pathway. Cell Mol Med. 2019 Apr;23(4):2505-2516 WB ;Rat. 30680929
- **[IF=3.241]** Su H et al. cis 9, trans 11, but not trans 10, cis 12 CLA isomer, impairs intestinal epithelial barrier function in IPEC-J2 cells and mice through activation of GPR120-[Ca2+]i and the MLCK signaling pathway. Food Funct. 2020 Apr 30;11(4):3657-3667. WB ;pig. 32296804