Mouse Anti-MYL9 Recombinant Antibody (CBFYM-2967)

Cat. No.: **CBMAB-M3162-FY**
This product is for research use only and is not intended for diagnostic use.

Summary

Host Animal	Mouse
Specificity	Human
Clone	CBFYM-2967
Application	WB, ICC, IHC-P, IHC-Fr, ELISA

Basic Information

Specificity	Human
Clonality	Monoclonal
Application Notes	The COA includes recommended starting dilutions, optimal dilutions should be determined by the end user.

Formulations & Storage *[For reference only, actual COA shall prevail!]*

Format	Liquid
Buffer	PBS, pH 7.4, 50% glycerol
Preservative	0.02% Sodium azide
Concentration	0.5 mg/mL
Storage	Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C long term. Avoid repeated freeze/thaw cycles.

Target

Introduction	Myosin, a structural component of muscle, consists of two heavy chains and four light chains. The protein encoded by this gene is a myosin light chain that may regulate muscle

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	contraction by modulating the ATPase activity of myosin heads. The encoded protein binds calcium and is activated by myosin light chain kinase. Two transcript variants encoding different isoforms have been found for this gene.
Entrez Gene ID	10398
UniProt ID	P24844
Alternative Names	Myosin Light Chain 9; Myosin Regulatory Light Chain 2, Smooth Muscle Isoform; Myosin, Light Polypeptide 9, Regulatory; Myosin Regulatory Light Chain MRLC1; Myosin, Light Chain 9, Regulatory; Myosin Regulatory Light Chain 1; Myosin Regulatory Light Chain 9; 20 KDa Myosin Light Chain
Function	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 (PubMed:11942626, PubMed:2526655). In myoblasts, may regulate PIEZO1-dependent cortical actomyosin assembly involved in myotube formation (By similarity).
Biological Process	Myofibril assembly Source: GO_Central Platelet aggregation Source: UniProtKB Regulation of muscle contraction Source: ProtInc
Cellular Location	Cytoskeleton Other locations cell cortex Note: Colocalizes with F-actin, MYH9 and PIEZO1 at the actomyosin cortex in myoblasts.
Involvement in disease	Megacystis-microcolon-intestinal hypoperistalsis syndrome 4 (MMIHS4): A form of megacystis-microcolon-intestinal hypoperistalsis syndrome, a congenital visceral myopathy primarily affecting females, and characterized by loss of smooth muscle contraction in the bladder and intestine. Affected individuals present at birth with functional obstruction of intestine, microcolon, dilation of bladder, and secondary hydronephrosis. The majority of cases have a fatal outcome due to malnutrition and sepsis, followed by multiorgan failure. MMIHS4 inheritance is autosomal recessive.
PTM	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. Phosphorylation is required for myotube formation.

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