



# Actin, Muscle Specific Rabbit mAb (Ready to Use)

<b>Catalog No</b>	YP-rAb-18170
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human,Mouse,Rat,Bovine,Pig,Chicken
<b>Applications</b>	IHC
<b>Gene Name</b>	ACTA1;ACTA2;ACTC1;ACTG2
<b>Protein Name</b>	$\alpha$ -Skeletal Muscle Actin ( $\alpha$ -SA); $\alpha$ -Cardiac Muscle Actin ( $\alpha$ -CA); $\alpha$ -Smooth Muscle Actin ( $\alpha$ -SMA); $\gamma$ -Smooth Muscle Actin ( $\gamma$ -SMA);
<b>Purification Process</b>	Protein A
<b>Specificity</b>	This antibody detects endogenous levels of Actin, Muscle Specific
<b>Formulation</b>	The prediluted ready-to-use antibody is diluted in phosphate buffer saline containing stabilizing protein and 0.05% Proclin 300
<b>Source</b>	Monoclonal, Rabbit,IgG
<b>Dilution</b>	Ready to use for IHC Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
<b>Concentration</b>	0.5 mg/ml
<b>Purity</b>	$\geq 90\%$
<b>Storage Stability</b>	2° C to 8° C/1 year,Ship by ice bag
<b>Synonyms</b>	
<b>Observed Band</b>	
<b>Calculated Molecular Weight</b>	
<b>Cell Pathway</b>	Cytoplasmic
<b>Tissue Specificity</b>	Muscle,Tongue,
<b>Function</b>	Disease:Defects in ACTC1 are the cause of cardiomyopathy dilated type 1R (CMD1R) [MIM:102540]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.,Disease:Defects in ACTC1 are the cause of cardiomyopathy familial hypertrophic type 11 (CMH11) [MIM:612098]. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.,Function:Actins are highly conserved proteins that are involved in various





types of cell motility and are ubiquitously expressed in all eukaryotic cells.,miscellaneous:In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility.,similarity:Belongs to the actin family.,subunit:Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to 4 others.,

### Background

Actins are highly conserved proteins that are involved in various types of cell motility. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to four others. The protein encoded by this gene belongs to the actin family which is comprised of three main groups of actin isoforms, alpha, beta, and gamma. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. Defects in this gene have been associated with idiopathic dilated cardiomyopathy (IDC) and familial hypertrophic cardiomyopathy (FHC). [provided by RefSeq, Jul 2008],

### matters needing attention

Avoid repeated freezing and thawing!

### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

