SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Actin antibody

SL10966R

Product Name:	Actin
Chinese Name:	肌动蛋白α1抗体
Alias:	muscle Actin; ACTS_HUMAN; Actin, alpha skeletal muscle; Alpha-actin-1; ACTA1; ACTA; ASMA; CFTD; CFTD1; CFTDM; MPFD; NEM1; NEM2; NEM3; Actin alpha skeletal muscle; actin, alpha 1, skeletal muscle 1; actin, alpha 1, skeletal muscle; actina; aktin; alpha Actin 1; alpha skeletal muscle Actin; alpha skeletal muscle; alpha-actin; Beta cytoskeletal actin; nemaline myopathy type 3.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Dog,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=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:	42kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ACTA1:3-100/377
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:	The product encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major

	constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Mutations in this gene cause nemaline myopathy type 3, congenital myopathy with excess of thin myofilaments, congenital myopathy with cores, and congenital myopathy with fiber-type disproportion, diseases that lead to muscle fiber defects. [provided by RefSeq, Jul 2008] **Function:** Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. **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. Identified in a complex composed of ACTA1, COBL, GSN AND TMSB4X. Interacts with TTID. Interacts (via its C-terminus) with USP25; the interaction occurs for all USP25 isoforms but is strongest for isoform USP25min muscle differentiating cells. **Subcellular Location:** Cytoplasm, cytoskeleton. **Post-translational modifications:** Oxidation of Met-46 and Met-49 by MICALs (MICAL1, MICAL2 or MICAL3) to form methionine sulfoxide promotes actin filament depolymerization. MICAL1 and MICAL2 produce the (R)-S-oxide form. The (R)-S-oxide form is reverted by MSRB1 and MSRB2, which promote actin repolymerization. Monomethylation at Lys-86 (K84me1) regulates actin-myosin interaction and actomyosin-dependent processes. Demethylation by ALKBH4 is required for maintaining actomyosin dynamics supporting normal cleavage furrow ingression during cytokinesis and cell migration. **DISEASE:** Nemaline myopathy 3 (NEM3) [MIM:161800]: A form of nemaline myopathy. Nemaline myopathies are muscular disorders characterized by muscle weakness of varying severity and onset, and abnormal thread-like or rod-shaped structures in muscle fibers on histologic examination. Note=The disease is caused by mutations affecting the gene represented in this entry. Myopathy, actin, congenital, with excess of thin myofilaments (MPCETM) [MIM:161800]: A congenital muscular disorder characterized at histological level by areas of sarcoplasm devoid of normal myofibrils and mitochondria, and replaced with dense masses of thin filaments. Central cores, rods, ragged red fibers and necrosis are absent. Note=The disease is caused by mutations affecting the gene represented in this entry. Myopathy, congenital, with fiber-type disproportion (CFTD) [MIM:255310]: A genetically heterogeneous disorder in which there is relative hypotrophy of type 1 muscle fibers compared to type 2 fibers on skeletal muscle biopsy. However, these

findings are not specific and can be found in many different myopathic and neuropathic conditions. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:
Belongs to the actin family.

SWISS:
P68133

Gene ID:
58

Database links:

Entrez Gene: 421534Chicken

Entrez Gene: 281592Cow

Entrez Gene: 58Human

Entrez Gene: 11459Mouse

Entrez Gene: 100154254Pig

Entrez Gene: 29437Rat

Omim: 102610Human

SwissProt: P68139Chicken

SwissProt: P68138Cow

SwissProt: P68133Human

SwissProt: P68134Mouse

SwissProt: P68137Pig

SwissProt: P68135Rabbit

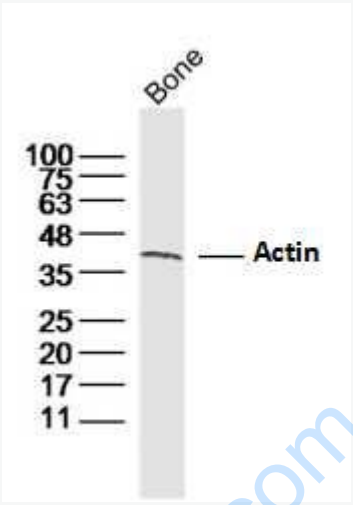
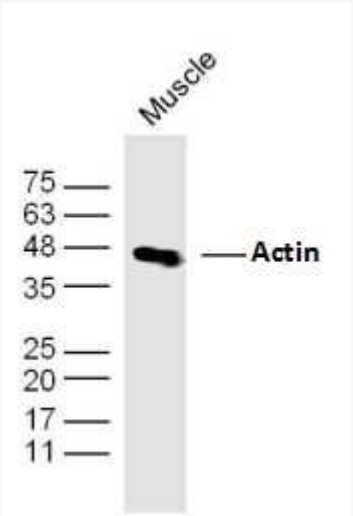
SwissProt: P68136Rat

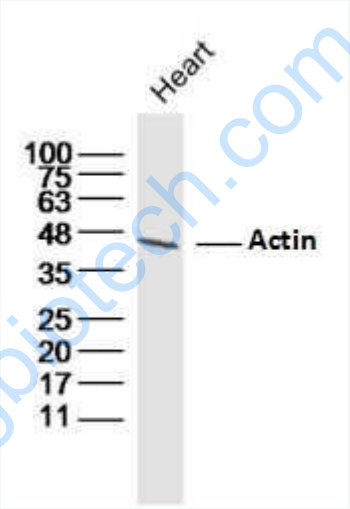
Unigene: 1288Human

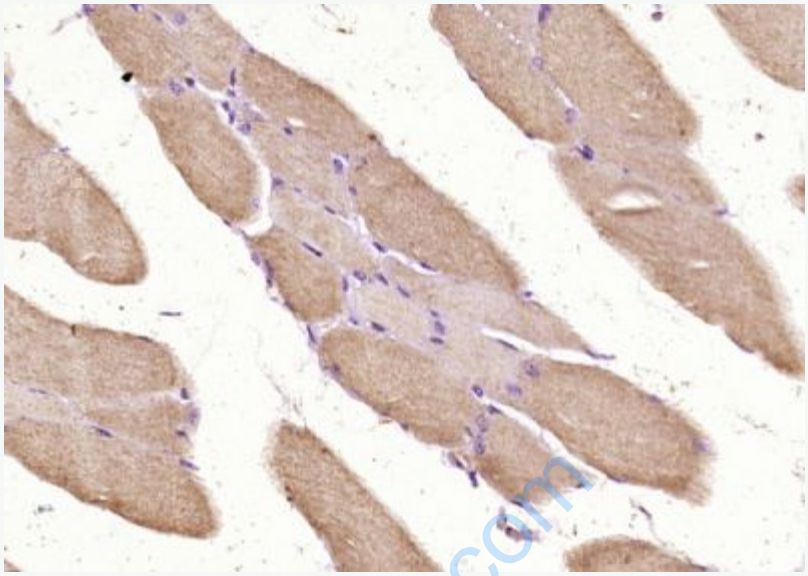
Unigene: 214950Mouse

Unigene: 82732Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Sample: Bone (Mouse) Lysate at 40 ug Primary: Anti-Actin (SL10966R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 42 kD Observed band size: 42 kD  Sample:

	Muscle (Mouse) Lysate at 40 ug Primary: Anti-Actin (SL10966R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 42 kD Observed band size: 42 kD
	
	Sample: Heart (Mouse) Lysate at 40 ug Primary: Anti-Actin (SL10966R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 42 kD Observed band size: 42 kD



Paraformaldehyde-fixed, paraffin embedded (mouse skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Actin) Polyclonal Antibody, Unconjugated (SL10966R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.