

# Alpha cardiac muscle actin specific Monoclonal antibody

 Catalog Number: 66125-1-Ig **10 Publications**

## Basic Information

<b>Catalog Number:</b> 66125-1-Ig	<b>GenBank Accession Number:</b> NM_005159	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 747 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 70	<b>CloneNo.:</b> 1F2B9
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P68032	<b>Recommended Dilutions:</b> WB: 1:2500-1:10000 IHC: 1:100-1:400 IF-P: 1:200-1:800 IF-Fro: 1:400-1:1600 FC (Intra): 0.40 ug per 10 <sup>6</sup> cells in a 100 µl suspension
<b>Isotype:</b> IgG1	<b>Full Name:</b> actin, alpha, cardiac muscle 1	
	<b>Calculated MW:</b> 42 kDa	
	<b>Observed MW:</b> 42 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF-P, IF-Fro, FC (Intra), ELISA	<b>Positive Controls:</b> WB : human heart tissue, pig heart tissue, rat heart tissue, mouse heart tissue IHC : human heart tissue, human heart and human skeletal muscle tissue IF-P : mouse heart tissue, IF-Fro : mouse heart tissue, FC (Intra) : C2C12 cells,
<b>Cited Applications:</b> WB, IHC, IF	
<b>Species Specificity:</b> human, mouse, rat, pig	
<b>Cited Species:</b> human, mouse, rat, rabbit	
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	

## Background Information

Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. The ACTC1 gene encodes cardiac muscle alpha-actin, the predominant actin isoform in adult heart, which interacts with a variety of proteins to produce the force for muscle contraction. This antibody is specific to the ACTC1. It does not cross-react with other actin isoforms.

## Notable Publications

Author	Pubmed ID	Journal	Application
Jiang Yan	36087696	Eur J Pharmacol	WB,IF
Muyao Ye	34642907	Immunol Res	WB
Eric E Abrahamson	36411500	Amyloid	IF

## Storage

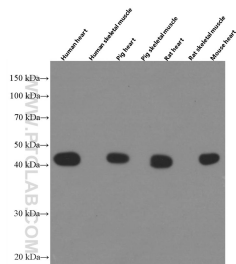
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

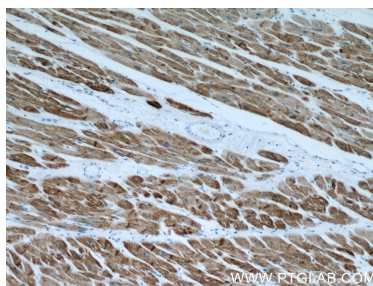
For technical support and original validation data for this product please contact:  
 T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
 E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
 W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

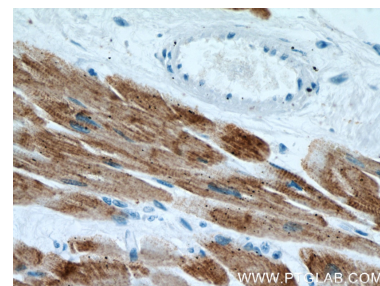
## Selected Validation Data



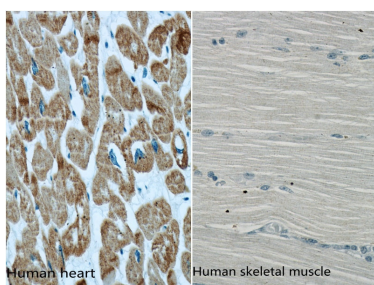
Various lysates were subjected to SDS PAGE followed by western blot with 66125-1-Ig (ACTC1-specific antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



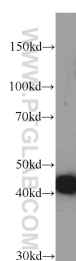
Immunohistochemical analysis of paraffin-embedded human heart using 66125-1-Ig (ACTC1-specific antibody) at dilution of 1:200 (under 10x lens).



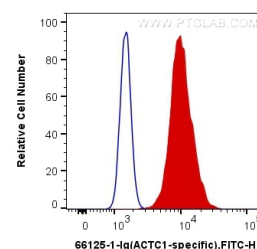
Immunohistochemical analysis of paraffin-embedded human heart using 66125-1-Ig (ACTC1-specific antibody) at dilution of 1:200 (under 40x lens).



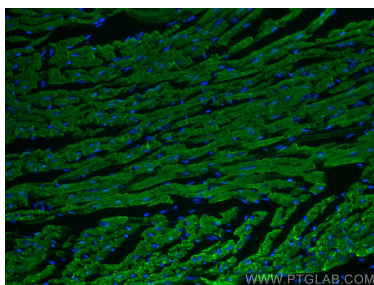
Immunohistochemical analysis of paraffin-embedded human heart and human skeletal muscle using 66125-1-Ig (ACTC1 specific antibody) at dilution 1:500. (under 40x lens).



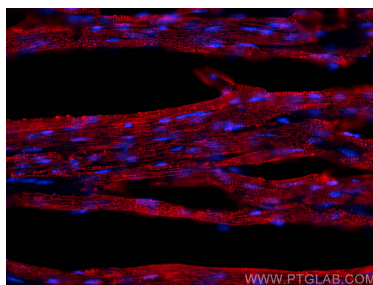
human heart tissue were subjected to SDS PAGE followed by western blot with 66125-1-Ig (ACTC1-specific antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



$1 \times 10^6$  C2C12 cells were intracellularly stained with 0.4  $\mu$ g Anti-Human ACTC1-specific (66125-1-Ig, Clone:1F2B9) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4  $\mu$ g Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed mouse heart tissue using ACTC1-specific antibody (66125-1-Ig, Clone: 1F2B9) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse heart tissue using ACTC1-specific antibody (66125-1-Ig, Clone: 1F2B9) at dilution of 1:800 and Multi-rAb CoraLite® Plus 594-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM004).