

# smooth muscle actin specific Monoclonal antibody

 Catalog Number: **67735-1-Ig** **92 Publications**

## Basic Information

<b>Catalog Number:</b> 67735-1-Ig	<b>GenBank Accession Number:</b> NM_001613	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 500 µg/ml	<b>GeneID (NCBI):</b> 59	<b>CloneNo.:</b> 1E9A11
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P62736	<b>Recommended Dilutions:</b> WB 1:20000-1:100000 IHC 1:2500-1:10000 IF 1:200-1:800
<b>Isotype:</b> IgG1	<b>Full Name:</b> actin, alpha 2, smooth muscle, aorta	
	<b>Calculated MW:</b> 42 kDa	
	<b>Observed MW:</b> 42 kDa	

## Applications

<b>Tested Applications:</b> FC, IF/ICC, IF-P, IHC, WB, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB, IF, IHC	<b>WB :</b> rat stomach tissue, rabbit stomach tissue, pig vein tissue, pig stomach tissue, rabbit large intestine tissue, pig colon tissue, rat colon tissue, mouse colon tissue
<b>Species Specificity:</b> Human, mouse, rat, pig, rabbit	<b>IHC :</b> human colon tissue, human appendicitis tissue, human liver tissue, human liver cancer tissue, rat colon tissue
<b>Cited Species:</b> human, rat, mouse, zebrafish, pig	<b>IF :</b> rat heart tissue, C2C12 cells
<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

ACTA2 (also known as  $\alpha$ -smooth muscle actin or  $\alpha$ -SMA) belongs to the actin family. Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. ACTA2 is primarily expressed in vascular smooth muscle and anti-ACTA2 is commonly used to marker smooth muscle cells.

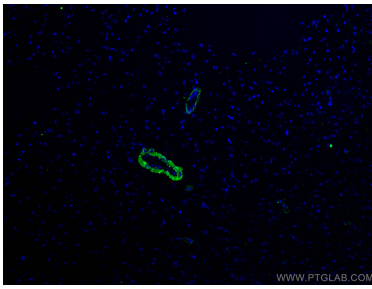
## Notable Publications

Author	Pubmed ID	Journal	Application
Longxiang Tu	34546211	Plast Reconstr Surg	WB
Silvia Specia	34529707	PLoS One	WB, IF
Ji-Ting Liu	34604241	Front Cell Dev Biol	WB

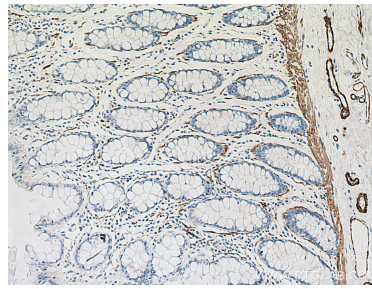
## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
 Aliquoting is unnecessary for -20°C storage

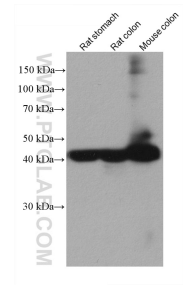
## Selected Validation Data



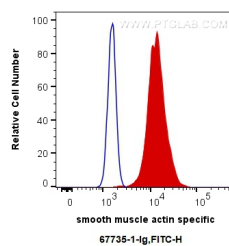
Immunofluorescent analysis of (4% PFA) fixed rat heart tissue using a-SMA specific antibody (67735-1-Ig, Clone: 1E9A11) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



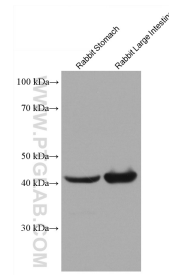
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 67735-1-Ig (a-SMA specific antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



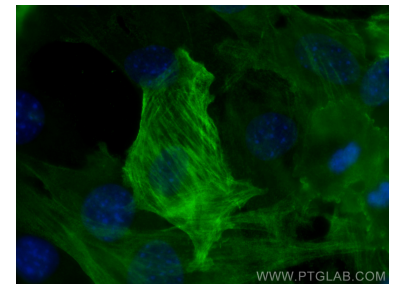
Various lysates were subjected to SDS PAGE followed by western blot with 67735-1-Ig (a-SMA specific antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.



1X10<sup>6</sup> C2C12 cells were intracellularly stained with 0.4 ug Anti-Human smooth muscle actin specific (67735-1-Ig, Clone:1E9A11) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Various lysates were subjected to SDS PAGE followed by western blot with 67735-1-Ig (smooth muscle actin specific antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Methanol) fixed C2C12 cells using smooth muscle actin specific antibody (67735-1-Ig, Clone: 1E9A11) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).