

For Research Use Only

# Alpha smooth muscle actin specific Recombinant antibody

Catalog Number: 80008-1-RR

Featured Product

33 Publications



## Basic Information

Catalog Number:

80008-1-RR

Concentration:

260 ug/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM\_001613

GeneID (NCBI):

59

UNIPROT ID:

P62736

Full Name:

actin, alpha 2, smooth muscle, aorta

Calculated MW:

42 kDa

Observed MW:

42 kDa

Purification Method:

Protein A purification

CloneNo.:

5H7

Recommended Dilutions:

WB: 1:20000-1:100000

IHC: 1:2500-1:10000

IF-P: 1:500-1:2000

IF-Fro: 1:200-1:800

FC (Intra): 0.50 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

Tested Applications:

WB, IHC, IF-P, IF-Fro, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat, pig, chicken, zebrafish

Cited Species:

human, mouse, rat, pig, duck

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

Positive Controls:

**WB**: mouse colon tissue, pig vein tissue, chicken crop tissue, zebrafish tissue, A549 cells, pig stomach, pig colon, rat stomach, chicken small intestine tissue, rat colon tissue

**IHC**: human liver tissue, human colon tissue, mouse colon tissue, rat colon tissue, human heart tissue, human appendicitis tissue, human rectal cancer tissue

**IF-P**: mouse heart tissue, mouse embryo tissue

**IF-Fro**: mouse small intestine tissue,

**FC (Intra)**: C2C12 cells,

## 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
Yingying Luo	36115414	Exp Cell Res	WB
Jingjing Liu	35719213	Drug Des Devel Ther	WB,IHC,IF
Yue Zhang	35149188	Pharmacol Res	WB,IHC

## 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

For technical support and original validation data for this product please contact:

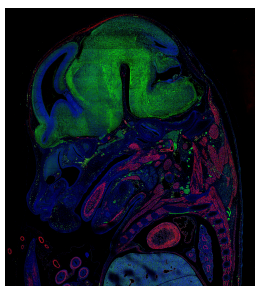
T: 4006900926

E: Proteintech-CN@ptglab.com

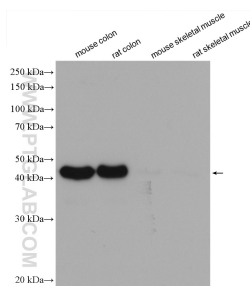
W: ptgcn.com

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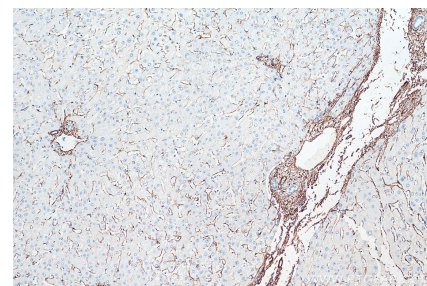
## Selected Validation Data



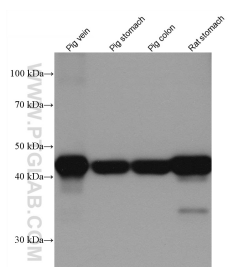
E14.5 FFPE mouse embryo section stained for smooth muscle actin (red, Cat. No 80008-1-RR) and alpha tubulin (green, Cat. CL488-66031). The alpha tubulin was conjugated to CoraLite-488 fluorescent dye. In red, you can see muscle tissue clearly stained including the tongue, heart, and arteries. Nerves and neurons are stained green since they are rich in tubulin. Image credit: @Immunofluorescence on Instagram



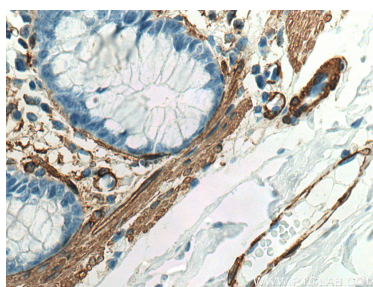
Various lysates were subjected to SDS PAGE followed by western blot with 80008-1-RR (smooth muscle actin specific antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



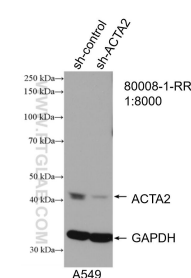
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 80008-1-RR (smooth muscle actin specific antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



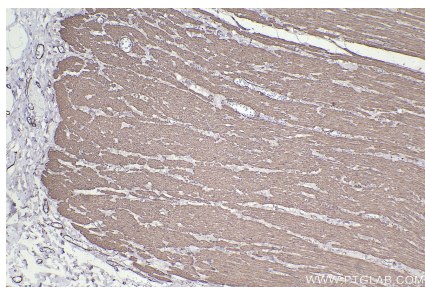
Various lysates were subjected to SDS PAGE followed by western blot with 80008-1-RR (smooth muscle actin specific antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 80008-1-RR (a-SMA specific antibody) at dilution of 1:3000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



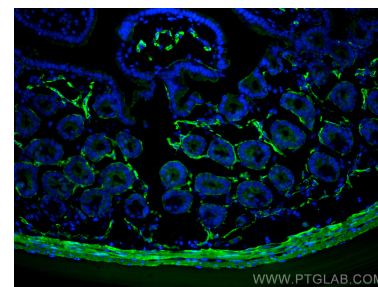
WB result of smooth muscle actin specific antibody (80008-1-RR; 1:8000; incubated at room temperature for 1.5 hours) with sh-Control and sh-smooth muscle actin specific transfected A549 cells.



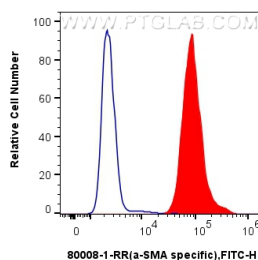
Immunohistochemical analysis of paraffin-embedded human rectal cancer tissue slide using 80008-1-RR (smooth muscle actin specific antibody) at dilution of 1:10000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using smooth muscle actin specific antibody (80008-1-RR, Clone: 5H7) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse small intestine tissue using Alpha smooth muscle actin specific antibody (80008-1-RR, Clone: 5H7) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



1x10<sup>6</sup> C2C12 cells were intracellularly stained with 0.5 ug smooth muscle actin specific Recombinant antibody (80008-1-RR, Clone:5H7) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.5 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).