For Research Use Only

smooth muscle actin Polyclonal antibody

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Catalog Number:14395-1-AP Featured Product 959 Publications

Basic Information

Catalog Number:
14395-1-AP

Size:
500 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG5886

GenBank Accession Number:
BC017554

GeneID (NCBI):
59

UNIPROT ID:
P62736

Full Name:
actin, alpha 2, smooth muscle, aorta

Calculated MW:
377 aa, 42 kDa

Observed MW:
43 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:8000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:1500-1:6000
IF 1:800-1:3200

Applications

Tested Applications:
FC, IF/ICC,IF-P, IHC, IP, WB, ELISA

Cited Applications:
WB, IF, FC, IHC, CoIP, competitive binding assay

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, sheep, mouse, monkey, rabbit, zebrafish, pig, canine, bovine

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, HUVEC cells, human placenta tissue, A549 cells, mouse liver tissue, mouse kidney tissue, rat colon tissue, mouse heart tissue, rat heart tissue

IP : mouse liver tissue,

IHC : human liver cancer tissue, human heart tissue, stromal tumor tissue, human hysteromyoma tissue, human colon tissue

IF : C2C12 cells, H9C2 cells, mouse heart tissue, mouse small intestine tissue

Background Information

ACTA2 (also known as α-smooth muscle actin or α-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. This antibody may cross-react with other isoforms of actins.

Notable Publications

Author	Pubmed ID	Journal	Application
Mengru Xie	32999278	Int J Oral Sci	WB,IF
Aipeng Deng	33321619	Mater Sci Eng C Mater Biol Appl	IF
Hui-Fang Wang	28970011	Eur J Pharmacol	WB,IF

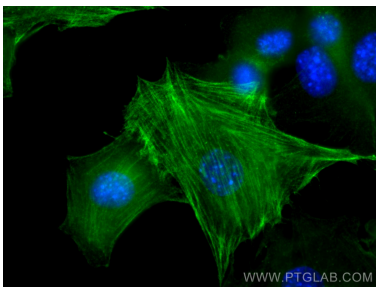
Storage

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

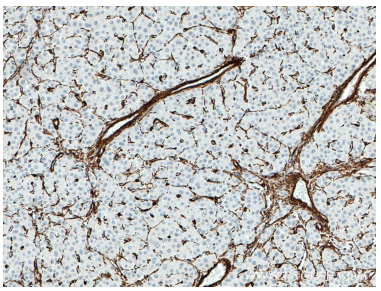
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

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

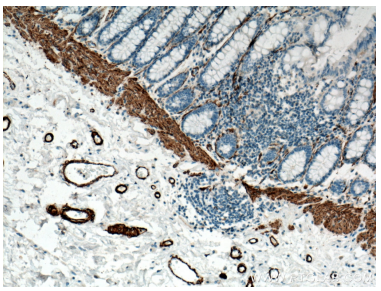
Selected Validation Data



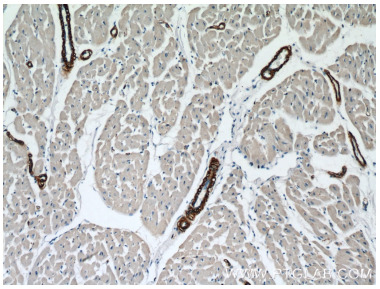
Immunofluorescent analysis of (-20°C Methanol) fixed C2C12 cells using smooth muscle actin antibody (14395-1-AP) at dilution of 1:1600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



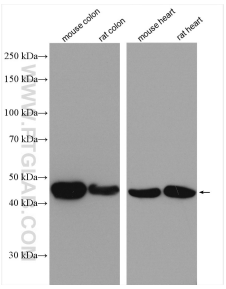
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 14395-1-AP (ACTA2/smooth muscle actin antibody) at dilution of 1:3000 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



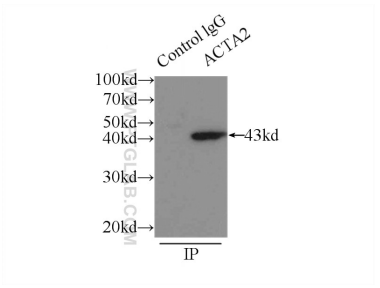
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 14395-1-AP (ACTA2/smooth muscle actin antibody) at dilution of 1:10000 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



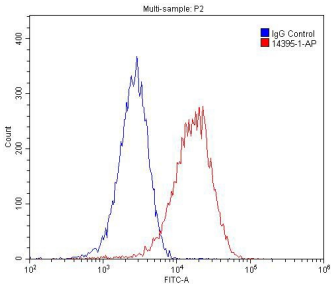
Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 14395-1-AP (ACTA2/smooth muscle actin antibody at dilution of 1:5000 (under 10x lens).



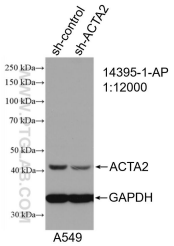
Various lysates were subjected to SDS PAGE followed by western blot with 14395-1-AP (smooth muscle actin antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



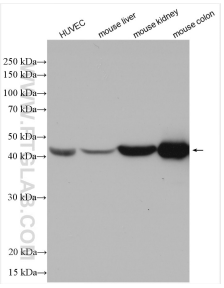
IP result of anti-smooth muscle actin (IP:14395-1-AP, 3ug; Detection:14395-1-AP 1:1000) with mouse liver tissue lysate 6000ug.



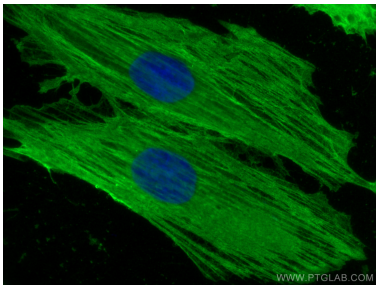
1X10^6 C2C12 cell were stained with 0.2ug ACTA2/smooth muscle actin antibody (14395-1-AP, red) and control antibody (blue). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500. Cells were fixed with 4% PFA and permeabilized with 0.1% Triton X-100.

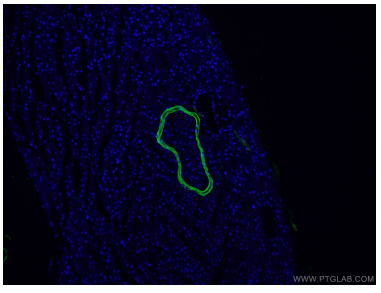


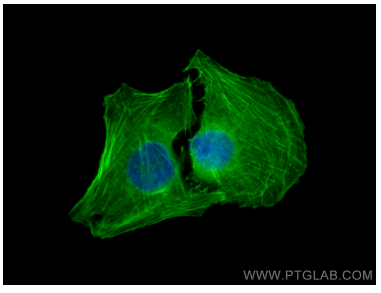
WB result of smooth muscle actin antibody (14395-1-AP; 1:12000; incubated at room temperature for 1.5 hours) with sh-Control and sh-smooth muscle actin transfected A549 cells.



Various lysates were subjected to SDS PAGE followed by western blot with 14395-1-AP (smooth muscle actin antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



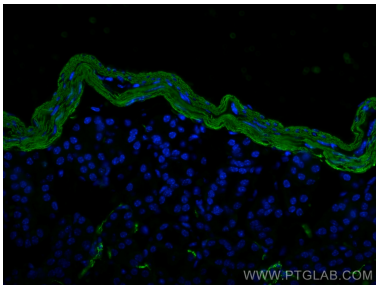




Immunofluorescent analysis of (-20°C Methanol) fixed H9C2 cells using smooth muscle actin antibody (14395-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

Immunofluorescent analysis of (4% PFA) fixed mouse heart tissue using 14395-1-AP (smooth muscle actin antibody) at dilution of 1:50 and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

Immunofluorescent analysis of (-20°C Methanol) fixed C2C12 cells using smooth muscle actin antibody (14395-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed mouse small intestine tissue using smooth muscle actin antibody (14395-1-AP) at dilution of 1:4000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).