

# Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4 (asm-1))

## Product Details

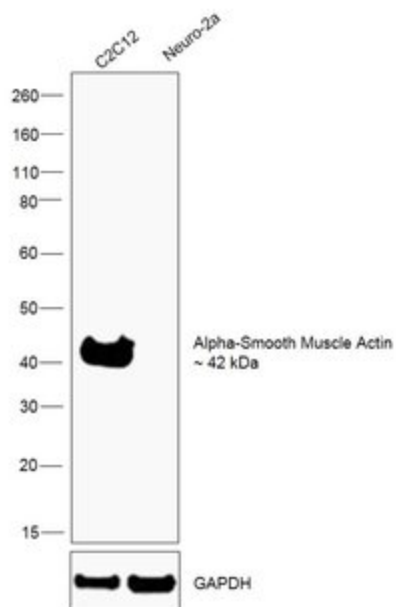
Size	500 µL
Species Reactivity	Bovine, Chicken, Human, Mouse, Non-human primate, Rabbit, Rat
Published Species	Dog, Rabbit, Rat, Pig, Sheep, Cat, Human, Mouse, Rhesus monkey
Host/Isotope	Mouse / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	1A4 (asm-1)
Conjugate	Unconjugated
Immunogen	N-terminal decapeptide of alpha-smooth muscle isoform of actin; acetylated at the N-terminus
Form	Liquid
Concentration	40 µg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4, with 0.2% BSA
Contains	0.09% sodium azide
Storage Conditions	4° C
RRID	AB_10979529

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	1:100-1:500	22 Publications
Immunofluorescence (IF)	1:100-1:500	-
Immunohistochemistry (Paraffin) (IHC (P))	1:800	3 Publications
Western Blot (WB)	1:100-1:500	15 Publications
Flow Cytometry (Flow)	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunohistochemistry (IHC)	-	119 Publications

## Product Specific Information

MA5-11547 targets Actin Smooth Muscle IF, WB, and IHC (P) applications and shows reactivity with Bovine, Chicken, Human, mouse, Non-human primate, Rabbit, and Rat samples. This antibody detects a non-specific band at approx. 30 kDa in Hela cell lysates.

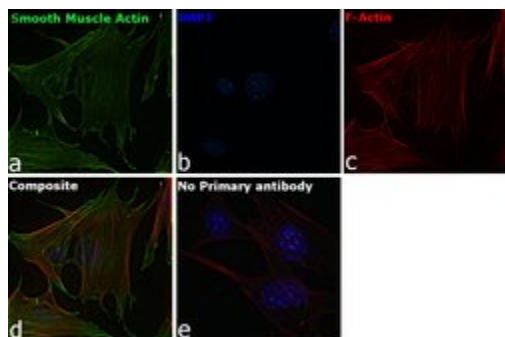
The MA5-11547 immunogen is n-terminal decapeptide of alpha-smooth muscle isoform of actin; acetylated at the N-terminus.



### Alpha-Smooth Muscle Actin Antibody (MA5-11547)

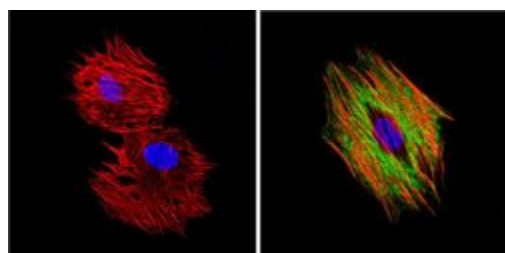
Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models tested owing to their inherent genetic constitution. Relative expression of Alpha-Smooth Muscle Actin was observed in C2C12 in comparison to Neuro-2a to adipocytes using Alpha-Smooth Muscle Actin Monoclonal Antibody (Product # MA5-11547). Relative expression validation info.

### Product Images For Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4 (asm-1))



### Alpha-Smooth Muscle Actin Antibody (MA5-11547) in IF

Immunofluorescence analysis of Alpha Smooth Muscle Actin was performed using 70% confluent log phase C2C12 cells. The cells were fixed with 4% Paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 2% BSA for 10 minutes at room temperature. The cells were labeled with Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4 (asm-1)) (Product # MA5-11547) at 1:100 dilution in 0.1% BSA, incubated at 4 degree Celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b: Blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing cytoskeleton localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



### Alpha-Smooth Muscle Actin Antibody (MA5-11547) in IF

Immunofluorescent analysis of Actin Smooth Muscle (green) showing positive staining in the cytoplasm of C2C12 cells (right) compared with a negative control in the absence of primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes, blocked with 3% BSA-PBS for 30 minutes at room temperature and probed with an Actin Smooth Muscle monoclonal antibody (Product # MA5-11547) in 3% BSA-PBS at a dilution of 1:200 and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 488-conjugated goat-anti-mouse IgG (H+L) secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with DAPI for 5-10 minutes in the dark. Images were taken at a magnification of 60x.

163 References

Immunocytochemistry (22)

Journal of visualized experiments : JoVE

Scaling of Engineered Vascular Grafts Using 3D Printed Guides and the Ring Stacking Method.

"MA511547 was used in immunocytochemistry to describe a "Ring Stacking Method" to synthesize blood vessels"

Authors: Pinnock CB,Xu Z,Lam MT

Species  
Human

Dilution  
Not Cited

Year  
2017

Nature protocols

Isolation, culture and evaluation of multilineage-differentiating stress-enduring (Muse) cells.

"MA5-11547 was used in immunocytochemistry to describe methods to isolate and evaluate multilineage-differentiating stress-enduring cells"

Authors: Kuroda Y,Wakao S,Kitada M,Murakami T,Nojima M,Dezawa M

Species  
Human

Dilution  
1:100

Year  
2014

View more ICC references on thermofisher.com

Immunohistochemistry (Paraffin) (3)

Laboratory investigation; a journal of technical methods and pathology

Ductular reactions in the liver regeneration process with local inflammation after physical partial hepatectomy.

"MA511547 was used in immunohistochemistry - paraffin section to examine the liver regeneration process after physical partial hepatectomy"

Authors: Suzuki Y,Katagiri H,Wang T,Kakisaka K,Kume K,Nishizuka SS,Takikawa Y

Species  
Mouse

Dilution  
1:600

Year  
2016

PloS one

Histatin-1 Expression in Human Lacrimal Epithelium.

"MA5-11547 was used in immunohistochemistry - paraffin section to study human lacrimal epithelium and histatin-1 expression"

Authors: Shah D,Ali M,Pasha Z,Jaboori AJ,Jassim SH,Jain S,Aakalu VK

Species  
Not Applicable

Dilution  
Not Cited

Year  
2016

View more IHC (P) references on thermofisher.com

More applications with references on thermofisher.com

IHC (119)

IHC (F) (1)

WB (15)

Flow (3)

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