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α-Smooth Muscle Actin (ACTA2) Rabbit pAb

Catalog No.: A1011 **45 Publications**

Basic Information

Observed MW
42 kDa

Calculated MW
42 kDa

Category
Primary antibody

Applications
WB,IF-P,IHC-P,mIHC,ELISA

Cross-Reactivity
Human, Mouse, Rat, Cynomolgus monkey

Background

This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, integrity, and intercellular signaling. The encoded protein is a smooth muscle actin that is involved in vascular contractility and blood pressure homeostasis. Mutations in this gene cause a variety of vascular diseases, such as thoracic aortic disease, coronary artery disease, stroke, and Moyamoya disease, as well as multisystemic smooth muscle dysfunction syndrome.

Recommended Dilutions

WB	1:500 - 1:1000
IF-P	1:50 - 1:200
IHC-P	1:500 - 1:2000
mIHC	1:500 - 1:2000
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
59

Swiss Prot
P62736

Immunogen
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
ACTSA; α-Smooth Muscle Actin (ACTA2)

Contact

400-999-6126

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Product Information

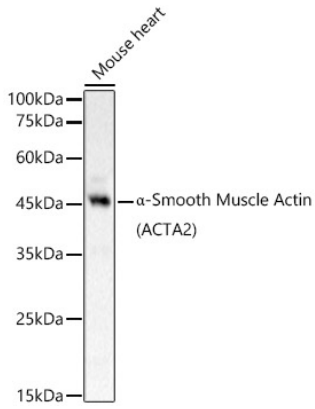
Source
Rabbit

Isotype
IgG

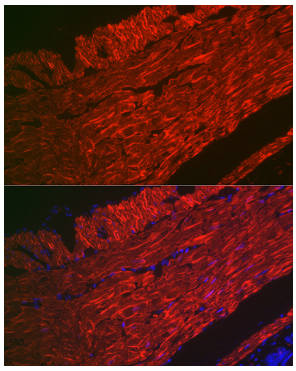
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS containing 50% glycerol, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

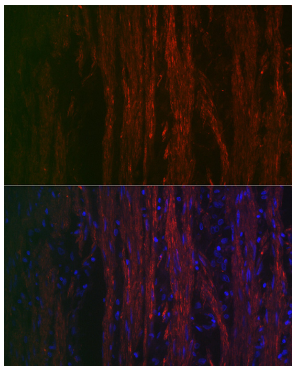
Validation Data



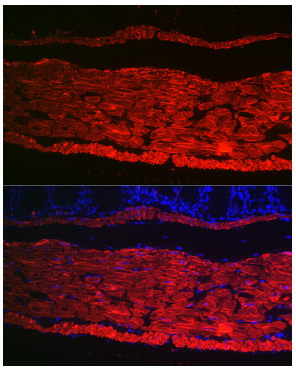
Western blot analysis of lysates from Mouse heart, using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at 1:800 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 10s.



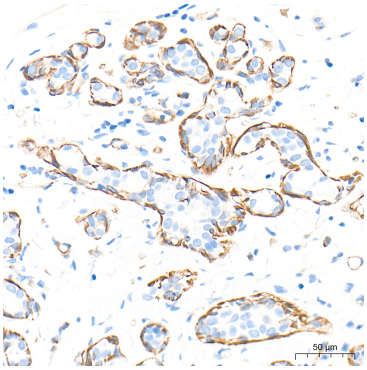
Immunofluorescence analysis of paraffin-embedded rat rectum using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



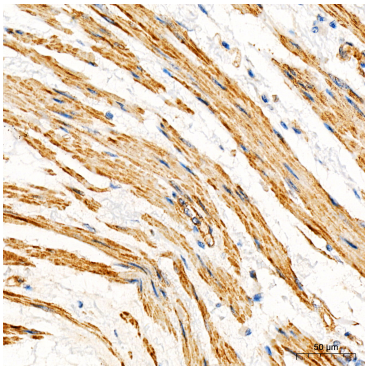
Immunofluorescence analysis of paraffin-embedded human smooth muscle using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



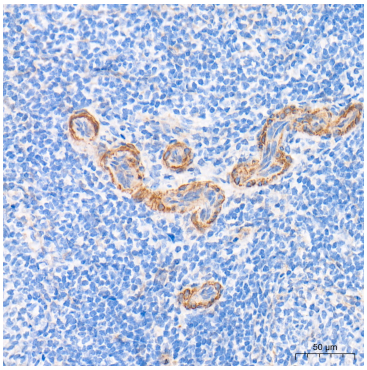
Immunofluorescence analysis of paraffin-embedded mouse colon using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunohistochemistry analysis of paraffin-embedded Human breast tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

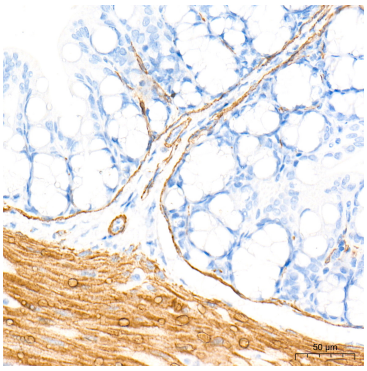


Immunohistochemistry analysis of paraffin-embedded Human esophagus tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval was performed with 0.01 M Tris-EDTA buffer (pH 9.0) prior to IHC staining.

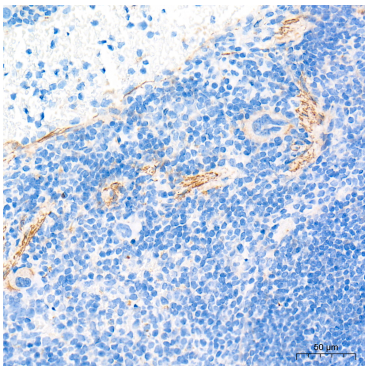


Immunohistochemistry analysis of paraffin-embedded Monkey spleen tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

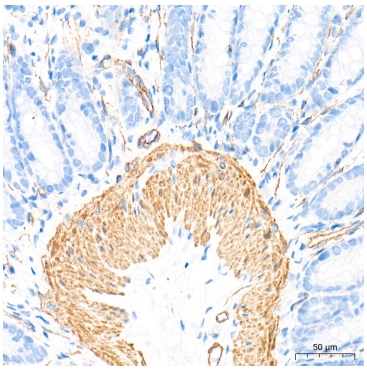
Validation Data



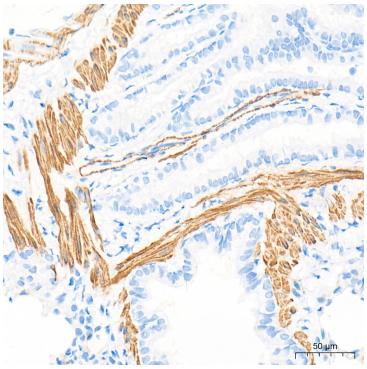
Immunohistochemistry analysis of paraffin-embedded Mouse intestine tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



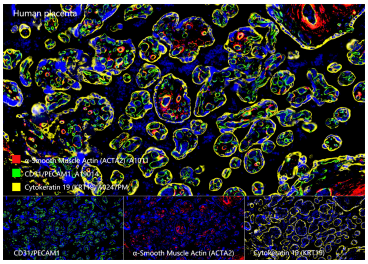
Immunohistochemistry analysis of paraffin-embedded Mouse spleen tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



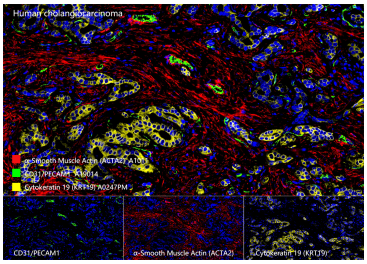
Immunohistochemistry analysis of paraffin-embedded Rat colon tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



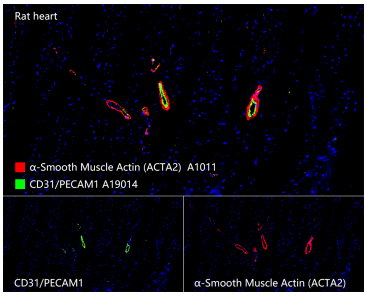
Immunohistochemistry analysis of paraffin-embedded Rat lung tissue using α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



The multiplex IHC analysis on paraffin-embedded Human placenta tissue using the following specific primary antibodies and tyramide signal amplification (TSA) reagents (RK05903) : CD31/PECAM1 Rabbit mAb (A19014, 1:500) with TSA-TYR-520 (Green), and α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011, 1:1000) with TSA-TYR-570 (Red), and Cytokeratin 19 (KRT19) Rabbit PolymAb® (A0247PM, 1:10000) with TSA-TYR-690 (Yellow). DAPI (Blue) was used for nuclear staining. Prior to multiplex IHC staining, high-pressure antigen retrieval was performed using 0.01M citrate buffer at pH 6.0. The analysis was completed using a 40x objective lens.



The multiplex IHC analysis on paraffin-embedded Human cholangiocarcinoma tissue using the following specific primary antibodies and tyramide signal amplification (TSA) reagents (RK05903) : CD31/PECAM1 Rabbit mAb (A19014, 1:500) with TSA-TYR-520 (Green), and α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011, 1:1000) with TSA-TYR-570 (Red), and Cytokeratin 19 (KRT19) Rabbit PolymAb® (A0247PM, 1:10000) with TSA-TYR-690 (Yellow). DAPI (Blue) was used for nuclear staining. Prior to multiplex IHC staining, high-pressure antigen retrieval was performed using 0.01M citrate buffer at pH 6.0. The analysis was completed using a 40x objective lens.



The multiplex IHC analysis on paraffin-

Validation Data

embedded Rat heart tissue using the following specific primary antibodies and tyramide signal amplification (TSA) reagents (RK05903) : CD31/PECAM1 Rabbit mAb (A19014, 1:500) with TSA-TYR-520 (Green), and α-Smooth Muscle Actin (ACTA2) Rabbit pAb (A1011, 1:1000) with TSA-TYR-570 (Red). DAPI (Blue) was used for nuclear staining. Prior to multiplex IHC staining, high-pressure antigen retrieval was performed using 0.01M citrate buffer at pH 6.0. The analysis was completed using a 40x objective lens.