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alpha smooth muscle Actin Rabbit pAb

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Catalog # AP50857

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P62736
Reactivity	Rat, Human, Mouse
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42009
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Actin alpha
Epitope Specificity	301-375/375
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton.
DISEASE	Defects in ACTA2 are the cause of aortic aneurysm familial thoracic type 6 (AAT6) [MIM:611788]. AATs are characterized by permanent dilation of the thoracic aorta usually due to degenerative changes in the aortic wall. They are primarily associated with a characteristic histologic appearance known as 'medial necrosis' or 'Erdheim cystic medial necrosis' in which there is degeneration and fragmentation of elastic fibers, loss of smooth muscle cells, and an accumulation of basophilic ground substance.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	All eukaryotic cells express Actin, which often constitutes as much as 50% of total cellular protein. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. While lower eukaryotes, such as yeast, have only one Actin gene, higher eukaryotes have several isoforms encoded by a family of genes. At least six types of Actin are present in mammalian tissues and fall into three classes. alpha-Actin expression is limited to various types of muscle, whereas beta- and gamma-Actin are the principle constituents of filaments in other tissues. Members of the small GTPase family regulate the organization of the Actin cytoskeleton. Rho controls the assembly of Actin stress fibers and focal adhesion. Rac regulates Actin filament accumulation at the plasma membrane. Cdc42 stimulates formation of filopodia.

Additional Information

Gene ID	59
Other Names	Actin, aortic smooth muscle, 3.6.4.-, Alpha-actin-2, Cell growth-inhibiting gene

	46 protein, Actin, aortic smooth muscle, intermediate form, ACTA2, ACTSA, ACTVS
Dilution	WB=1:1000-5000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 g/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ACTA2
Synonyms	ACTSA, ACTVS
Function	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
Cellular Location	Cytoplasm, cytoskeleton.

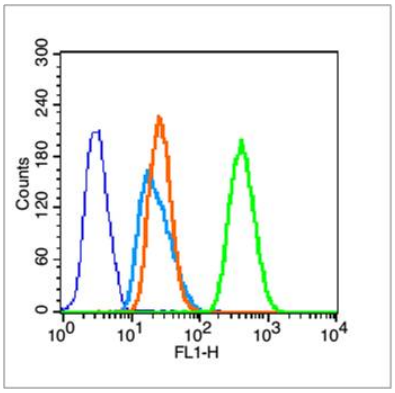
Background

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References

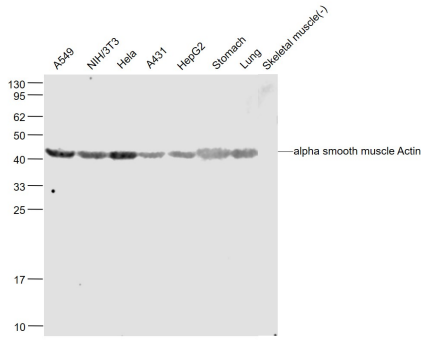
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Images

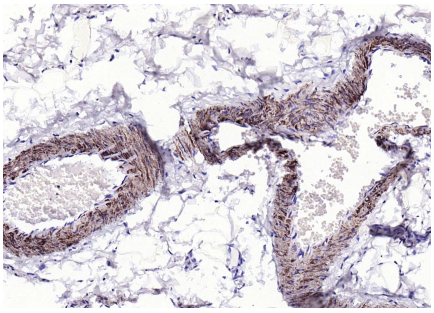


Blank control (blue line): Hela (fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice).
Primary Antibody (green line): Rabbit Anti-alpha smooth muscle Actin antibody (AP50857),Dilution: 1 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC,Dilution: 1 µg /test.

Sample:
A549(Human) Cell Lysate at 30 ug
NIH/3T3(Mouse) Cell Lysate at 30 ug
Hela(Human) Cell Lysate at 30 ug



A431(Human) Cell Lysate at 30 ug
HepG2(Human) Cell Lysate at 30 ug
Stomach (Mouse) Lysate at 40 ug
Lung (Mouse) Lysate at 40 ug
Skeletal muscle(-) (Mouse) Lysate at 40 ug
Primary: Anti-alpha smooth muscle Actin (AP50857) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 42 kD
Observed band size: 42 kD



Paraformaldehyde-fixed, paraffin embedded Human Duodenum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with alpha smooth muscle Actin Polyclonal Antibody, Unconjugated (AP50857) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.