

**α smooth muscle actin (PT0074R) PT® Rabbit mAb**

<b>Catalog No :</b>	AR1108
<b>Reactivity :</b>	Human; Mouse; Rat;
<b>Applications :</b>	WB;IHC;IF;IP;ELISA
<b>Target :</b>	Actin, smooth muscle (SMA)
<b>Fields :</b>	>>Vascular smooth muscle contraction;>>Apelin signaling pathway;>>Relaxin signaling pathway
<b>Gene Name :</b>	ACTA2
<b>Protein Name :</b>	Actin aortic smooth muscle
<b>Human Gene Id :</b>	59
<b>Human Swiss Prot No :</b>	P62736
<b>Mouse Gene Id :</b>	11475
<b>Mouse Swiss Prot No :</b>	P62737
<b>Rat Gene Id :</b>	81633
<b>Rat Swiss Prot No :</b>	P62738
<b>Specificity :</b>	endogenous
<b>Formulation :</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source :</b>	Monoclonal, rabbit, IgG, Kappa
<b>Dilution :</b>	IHC 1:200-1:1000,WB 1:1000-1:5000,IF 1:200-1:1000,ELISA 1:5000-1:20000,IP 1:50-1:200,
<b>Purification :</b>	Protein A

**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

**Molecularweight :** 42kD

**Observed Band :** 42kD

**Cell Pathway :** Vascular smooth muscle contraction;

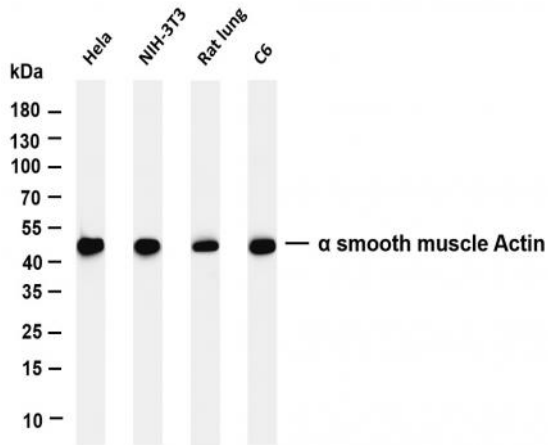
**Background :** The protein encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Nov 2008],

**Function :** 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.,function:Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.,miscellaneous:In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actin

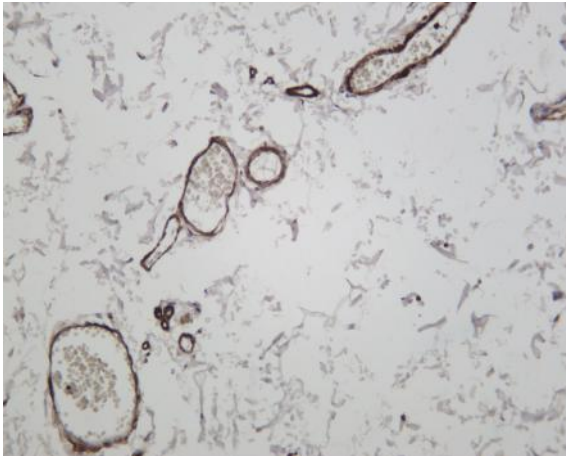
**Subcellular Location :** Cytoplasm

**Expression :** Pituitary,Uterus,

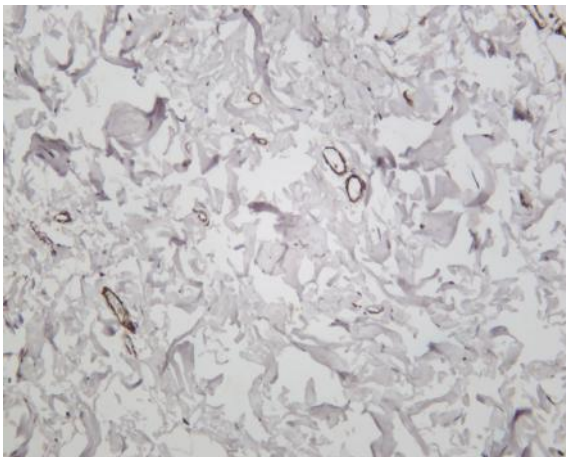
## Products Images



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti- $\alpha$  smooth muscle Actin (PT0074R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: NIH-3T3 Lane 3: Rat lung Lane 4: C6 Predicted band size: 42kDa Observed band size: 42kDa



Human colon was stained with anti- $\alpha$  smooth muscle actin (PT0074R) rabbit antibody



Human stomach was stained with anti- $\alpha$  smooth muscle actin (PT0074R) rabbit antibody