

## Immunotag™ α-Smooth Muscle Actin Polyclonal Antibody

Antibody Specification	
Catalog No.	ITM3245
Product Description	Immunotag™ α-Smooth Muscle Actin Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	α-SMA
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB
Recommended Dilution	WB: 1:2000-5000
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthetic Peptide of α-Smooth Muscle Actin
Specificity	The antibody detects endogenous α-Smooth Muscle Actin protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using specific immunogen
Form	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
Gene Name	ACTA2
Accession No.	P62736 P62737 P62738
Alternate Names	ACTA2; ACTSA; ACTVS; GIG46; Actin, aortic smooth muscle; Alpha-actin-2; Cell growth-inhibiting gene 46 protein

## Antibody Specification

Description	actin, alpha 2, smooth muscle, aorta(ACTA2) Homo sapiens 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],
Cell Pathway/ Category	Vascular smooth muscle contraction,
Protein Expression	Pituitary,Uterus,
Subcellular Localization	extracellular space,cytoplasm,cytosol,actin cytoskeleton,lamellipodium,filopodium,smooth muscle contractile fiber,protein complex,cell body,extracellular exosome,
Protein 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 actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility.,similarity:Belongs to the actin family.,subunit:Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to 4 others.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.