

**Myosin Heavy Chain, Smooth Muscle (SMMHC) (ABT150R) rabbit mAb**

<b>Catalog No :</b>	YM7170
<b>Reactivity :</b>	Human; Mouse; (predicted: Rat)
<b>Applications :</b>	IHC; ELISA
<b>Target :</b>	Myosin Heavy Chain, Smooth Muscle
<b>Fields :</b>	>>Vascular smooth muscle contraction;>>Tight junction;>>Regulation of actin cytoskeleton;>>Pathogenic Escherichia coli infection
<b>Gene Name :</b>	MYH11
<b>Protein Name :</b>	Myosin Heavy Chain, Smooth Muscle
<b>Human Gene Id :</b>	4629
<b>Human Swiss Prot No :</b>	P35749
<b>Immunogen :</b>	Synthesized peptide derived from human Myosin Heavy Chain, Smooth Muscle AA range:300-400
<b>Specificity :</b>	This antibody detects endogenous levels of Myosin Heavy Chain, Smooth Muscle
<b>Formulation :</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source :</b>	Monoclonal, Rabbit IgG1, Kappa
<b>Dilution :</b>	IHC 1:100-500, ELISA 1:5000-20000
<b>Purification :</b>	Recombinant Expression and Affinity purified
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Background :</b>	The protein encoded by this gene is a smooth muscle myosin belonging to the myosin heavy chain family. The gene product is a subunit of a hexameric protein that consists of two heavy chain subunits and two pairs of non-identical light chain

subunits. It functions as a major contractile protein, converting chemical energy into mechanical energy through the hydrolysis of ATP. The gene encoding a human ortholog of rat NUDE1 is transcribed from the reverse strand of this gene, and its 3' end overlaps with that of the latter. The pericentric inversion of chromosome 16 [inv(16)(p13q22)] produces a chimeric transcript that encodes a protein consisting of the first 165 residues from the N terminus of core-binding factor beta in a fusion with the C-terminal portion of the smooth muscle myosin heavy chain. This chromosomal rearrangement is associated with acute myeloid leukemia of the M4Eo subtype. Alter

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**Function :**

disease:A chromosomal aberration involving MYH11 is found in acute myeloid leukemia of M4EO subtype. Pericentric inversion inv(16)(p13;q22). The inversion produces a fusion protein consisting of the 165 N-terminal residues of CBF-beta (PEPB2) and the tail region of MYH11.,disease:Defects in MYH11 are the cause of aortic aneurysm familial thoracic type 4 (AAT4) [MIM:132900]; also known as familial thoracic aortic aneurysm and dissection (TAAD). Aneurysms and dissections of the aorta usually result from degenerative changes in the aortic wall. Thoracic aortic aneurysms and dissections 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. Patients with AAT4 show marke

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**Subcellular Location :**

Cytoplasmic

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**Expression :**

Smooth muscle; expressed in the umbilical artery, bladder, esophagus and trachea. Isoform 1 is mostly found in slowly contracting tonic muscles.

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