Myosin Heavy Chain, Smooth Muscle (SMMHC) Rabbit mAb (Ready to Use)

Catalog No	YP-rAb-18255
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	IHC
Gene Name	MYH11 KIAA0866
Protein Name	Myosin Heavy Chain, Smooth Muscle
Purification Process	Protein A
Specificity	This antibody detects endogenous levels of Myosin Heavy Chain, Smooth Muscle
Formulation	The prediluted ready-to-use antibody is diluted in phosphate buffer saline containing stabilizing protein and 0.05% Proclin 300
Source	Monoclonal, Rabbit,IgG
Dilution	Ready to use for IHC Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	2° C to 8° C/1 year,Ship by ice bag
Synonyms	AAT4 ; DKFZp686D10126 ; DKFZp686D19237 ; FAA4 ; FLJ35232 ; MGC126726 ; MGC32963 ; MYH 11 ; MYH11 ; MYH11_HUMAN ; Myosin 11 ; Myosin heavy chain 11 ; Myosin heavy chain 11 smooth muscle ; Myosin heavy chain ; Myosin heavy chain smooth muscle isoform ; Myosin heavy polypeptide 11 smooth muscle ; Myosin-11 ; SMHC ; SMMHC ; smooth muscle isoform ; Smooth muscle myosin heavy chain 11 isoform SM2 ; Smooth muscle myosin heavy chain isoform SM2
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Cytoplasmic
Tissue Specificity	Smooth muscle; expressed in the umbilical artery, bladder, esophagus and trachea. Isoform 1 is mostly found in slowly contracting tonic muscles.
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 marked aortic stiffness. Pathological aortas show large areas of medial degeneration with very low smooth muscle cells content.,Domain:The rodlike tail sequence is highly repetitive, showing cycles of a 28-residue repeat pattern composed of 4 heptapeptides, characteristic for alpha-helical coiled coils.,Function:Muscle contraction.,miscellaneous:Each myosin heavy chain can be split into 1 light meromyosin (LMM) and 1 heavy meromyosin (HMM). It can later be split further into 2 globular subfragments (S1) and 1 rod-shaped subfragment (S2).,similarity:Contains 1 IQ domain.,similarity:Contains 1 myosin head-like domain.,subcellular location:Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Thick filaments of the myofibrils.,subunit:Muscle myosin is a hexameric protein that consists of 2 heavy chain subunits (MHC), 2 alkali light chain subunits (MLC) and 2 regulatory light chain subunits (MLC-2).,tissue specificity:Smooth muscle; expressed in the umbilical artery, bladder, esophagus and trachea.,
Background	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
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.