abcam

Product datasheet

HRP Anti-smooth muscle Myosin heavy chain 11 antibody [EPR5336(B)] ab196983

Recombinant RabMAb

3 Images

Overview

Product name	HRP Anti-smooth muscle Myosin heavy chain 11 antibody [EPR5336(B)]
Description	HRP Rabbit monoclonal [EPR5336(B)] to smooth muscle Myosin heavy chain 11
Host species	Rabbit
Conjugation	HRP
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human testis tissue lysate. IHC-P: normal human kidney tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5336(B)

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab196983 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/5000. Detects a band of approximately 227 kDa (predicted molecular weight: 227 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. **ab199507** - Rabbit monoclonal IgG (HRP), is suitable for use an as isotype control with this antibody.

Target

Function Muscle contraction.

Tissue specificity Smooth muscle; expressed in the umbilical artery, bladder, esophagus and trachea.

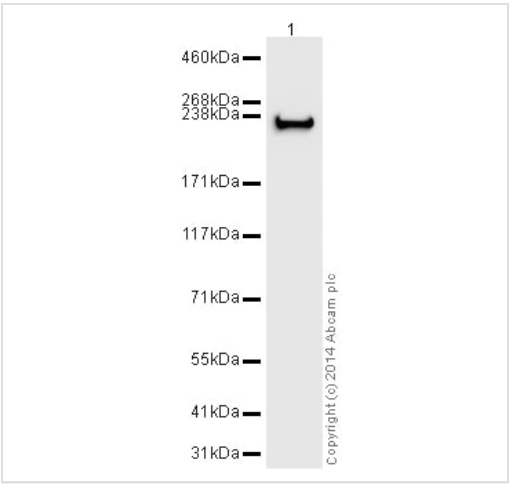
Involvement in disease Note=A chromosomal aberration involving MYH11 is found in acute myeloid leukemia of M4EO subtype. Pericentric inversion inv(16)(p13;q22). The inversion produces a fusion protein consisting of the 165 N-terminal residues of CBF-beta (PEPB2) and the tail region of MYH11. Defects 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.

Sequence similarities Contains 1 IQ domain.
Contains 1 myosin head-like domain.

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.
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).

Cellular localization Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Thick filaments of the myofibrils.

Images



Western blot - HRP Anti-smooth muscle Myosin heavy chain 11 antibody [EPR5336(B)] (ab196983)

HRP Anti-smooth muscle Myosin heavy chain 11 antibody [EPR5336(B)] (ab196983) at 1/5000 dilution + Human testis tissue lysate - total protein (**ab30257**) at 10 µg

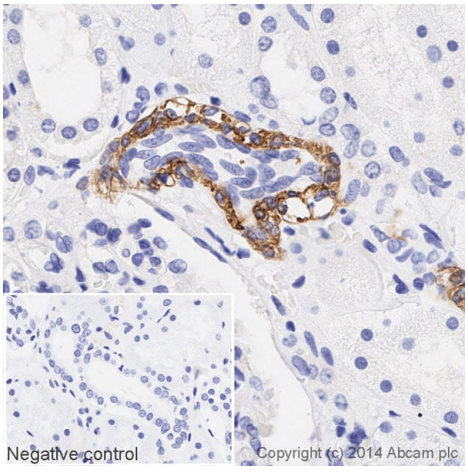
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 227 kDa
Observed band size: 227 kDa

Exposure time: 4 minutes

This blot was produced using a 3-8% Tris Acetate gel under the TA buffer system. The gel was run at 150V for 60 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab196983 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-smooth muscle Myosin heavy chain 11 antibody [EPR5336(B)] (ab196983)

IHC image of smooth muscle Myosin heavy chain 11 staining in a section of formalin-fixed paraffin-embedded normal human kidney tissue*, performed on a Leica BOND. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab196983 at 1/500 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

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