Product datasheet

Anti-smooth muscle Myosin heavy chain 11 antibody ab53219

16 Abreviews 46 References 4 Images

Overview

Product name Anti-smooth muscle Myosin heavy chain 11 antibody
Description Rabbit polyclonal to smooth muscle Myosin heavy chain 11
Host species Rabbit
Tested applications Suitable for: WB, IHC-Fr, IHC-P, ICC/IF
Species reactivity Reacts with: Mouse, Rat, Sheep, Cow, Human, Pig
Predicted to work with: Vertebrata
Immunogen Bovine tracheal smooth muscle myosin.

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer pH: 7.50
Preservative: 0.006% Sodium azide
 Constituents: 0.87% Sodium chloride, 0.02% Tris buffered saline
Purity Ion Exchange Chromatography
Purification notes Antisera to smooth muscle myosin 11 were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared by ion exchange chromatography.
Clonality Polyclonal
Isotype IgG

Applications

Our Abpromise guarantee covers the use of ab53219 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**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.

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<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td>🟣</td>
<td>Use at an assay dependent concentration. Predicted molecular weight: 227 kDa.</td>
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<tr>
<td>IHC-Fr</td>
<td>🟣</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>IHC-P</td>
<td>🟣</td>
<td>Use at an assay dependent concentration. PubMed: 19729479</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>🟣</td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
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**Target**

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**Function**
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**Cellular localization**
Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Thick filaments of the myofibrils.
Western blot - Anti-smooth muscle Myosin heavy chain 11 antibody (ab53219)

This image is courtesy of an Abreview submitted by Dr Mario Torrado

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-smooth muscle Myosin heavy chain 11 antibody (ab53219)

Lanes 3 and 4: Pig Tissue lysate - Heart

Immunohistochemical analysis of paraffin-embedded sections of uterus labelling smooth muscle myosin chain 11 with ab53219 at 1/500 dilution.
Immunocytochemistry/ Immunofluorescence - Anti-smooth muscle Myosin heavy chain 11 antibody (ab53219)
This image is courtesy of an Abreview submitted by Jordan Carbary

ab53219 staining smooth muscle Myosin heavy chain 11 in Pig aortic smooth muscle cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody (1/50) for 1 hour at 25°C. Ab6717 (1/400) was used as the secondary antibody.

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