Product datasheet

Anti-smooth muscle Myosin heavy chain 11 antibody ab53219

***** 16 Abreviews  33 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
Preservative: 0.006% Sodium Azide
Constituents: 20mM Tris buffered saline, 150mM Sodium chloride, pH 7.5

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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration. Predicted molecular weight: 227 kDa.</td>
</tr>
</tbody>
</table>
### 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 (PEBP2) 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.

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<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>
</table>

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

Immunochemical 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)**

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.
Western blot - Anti-smooth muscle Myosin heavy chain 11 antibody (ab53219)

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

Lanes 3 and 4: Pig Tissue lysate - Heart

Immunocytochemistry/ Immunofluorescence - Anti-smooth muscle Myosin heavy chain 11 antibody (ab53219)

This image is courtesy of an anonymous abreview.

ab53219 staining smooth muscle Myosin heavy chain 11 in Human smooth muscle cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde and permeabilized and blocked in 1% serum, 0.1%triton, 0.1% BSA in PBS. Samples were incubated with primary antibody (1/100) for 16 hours at 4°C. A Goat anti-rabbit IgG Alexa 488 (green) was used as the secondary antibody, and DAPI was used to stain cell nuclei (blue).

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise,
please visit http://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors