


Product datasheet

Anti-smooth muscle Myosin heavy chain I antibody [SMMS-1] - BSA and Azide free ab212657

★★★★★ [2 Abreviews](#) [3 References](#) [3 Images](#)

Overview

Product name	Anti-smooth muscle Myosin heavy chain I antibody [SMMS-1] - BSA and Azide free
Description	Mouse monoclonal [SMMS-1] to smooth muscle Myosin heavy chain I - BSA and Azide free
Host species	Mouse
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Rat, Rabbit, Chicken, Guinea pig, Cow, Cat, Dog, Pig 
Immunogen	Tissue, cells or virus corresponding to Human smooth muscle Myosin heavy chain I. Immunogen from Human uterus extract. Database link: P35749
Positive control	IHC-P: Uterus or normal breast; Human breast carcinoma and Human Leiomyosarcoma tissues.
General notes	<p>ab212657 may be useful for the study of breast tumors as the presence of an intact layer of myoepithelial cells is an important feature, which may distinguish benign breast lesions and carcinoma in situ from invasive tumors.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Constituent: 100% PBS
Carrier free	Yes

Purity	Protein G purified
Purification notes	Purified from bioreactor concentrate.
Clonality	Monoclonal
Clone number	SMMS-1
Isotype	IgG1
Light chain type	kappa

Applications

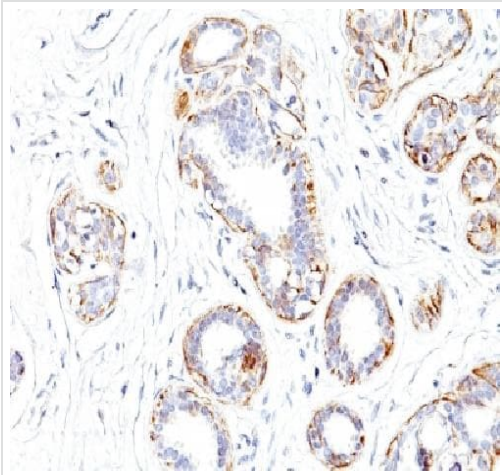
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab212657 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★ (1)	Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval using 10 mM Tris with 1 mM EDTA, pH 9.0, for 45 minutes at 95°C followed by cooling at room temperature for 20 minutes. Incubate with primary for 30 minutes at room temperature.

Target

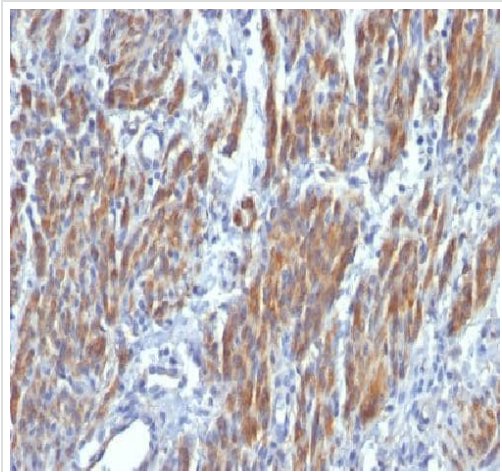
Function	Muscle contraction.
Tissue specificity	Smooth muscle; expressed in the umbilical artery, bladder, esophagus and trachea. Isoform 1 is mostly found in slowly contracting tonic muscles.
Involvement in disease	A chromosomal aberration involving MYH11 is found in acute myeloid leukemia of M4EO subtype. 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. Aortic aneurysm, familial thoracic 4
Sequence similarities	Belongs to the TRAFAC class myosin-kinesin ATPase superfamily. Myosin family. Contains 1 IQ domain. Contains 1 myosin motor 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. Limited proteolysis of myosin heavy chain produces 1 light meromyosin (LMM) and 1 heavy meromyosin (HMM). HMM can be further cleaved 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



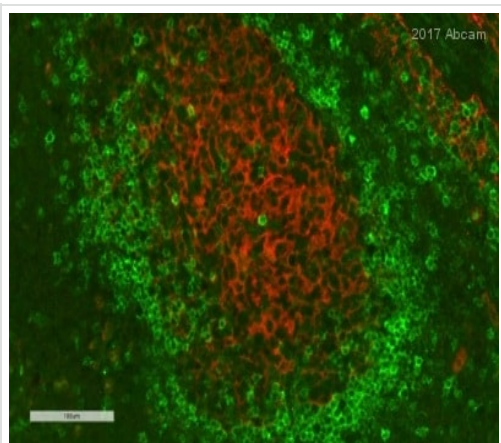
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human breast carcinoma tissue section labeling smooth muscle Myosin heavy chain with ab212657 at 1 µg/mL.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-smooth muscle Myosin heavy chain I antibody [SMMS-1] - BSA and Azide free (ab212657)



Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human Leiomyosarcoma tissue section labeling smooth muscle Myosin heavy chain with ab212657 at 1 µg/mL.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-smooth muscle Myosin heavy chain I antibody [SMMS-1] - BSA and Azide free (ab212657)



Ab212657 staining Smooth muscle myosin heavy chain I in Human lymph node tissue sections by Immunohistochemistry (Formalin/PFA- fixed paraffin embedded section). Tissue was fixed with 10% buffered formalin and blocked with 2% serum for 20 minutes at 22°C; antigen retrieval was by heat mediation in a 10Mm Sodium Citrate (pH6). Permeabilized in 0.2% Tween. Samples were incubated with primary antibody (1/100 dilution in 1% BSA in Tris Buffered Saline) for 1 hour at 22°C. An Alexa Fluor® 594 Donkey anti Mouse IgG (1/200) was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-smooth muscle Myosin heavy chain I antibody [SMMS-1] - BSA and Azide free (ab212657)

This image is courtesy of an Abreview submitted by Joy Folkvord.

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