

Product datasheet

Anti-Smoothelin antibody [EPR20044] ab219652

Recombinant RabMAb

1 References 12 Images

Overview

Product name	Anti-Smoothelin antibody [EPR20044]
Description	Rabbit monoclonal [EPR20044] to Smoothelin
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Smoothelin aa 800-900. The exact sequence is proprietary. Database link: P53814
Positive control	WB: Human bladder and uterus lysates; Mouse and rat colon lysates. IHC-P: Human colon, stomach, skeletal muscle, bladder cancer and gastrointestinal stromal tumor (GIST) tissues; Mouse colon and heart tissues; Rat colon tissue.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p>

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

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 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20044
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab219652** in the following tested applications.

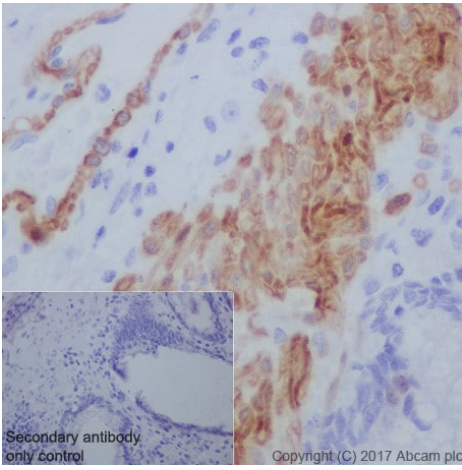
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 59, 110 kDa (predicted molecular weight: 99 kDa).
IHC-P		1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function	Structural protein of the cytoskeleton.
Tissue specificity	Smooth muscle; contractile or vascular (for the long form).
Sequence similarities	Belongs to the smoothelin family. Contains 1 CH (calponin-homology) domain.
Cellular localization	Cytoplasm > cytoskeleton. Exhibits a filamentous organization.

Images

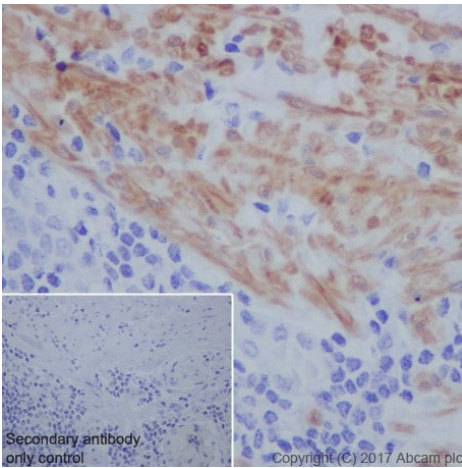


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on vascular smooth muscle and visceral smooth muscle of human colon is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

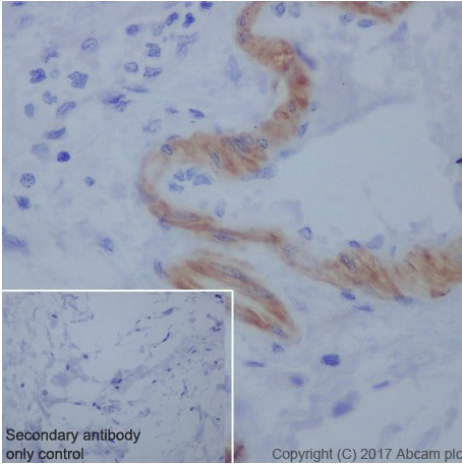


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded human stomach tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on visceral smooth muscle of human stomach is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

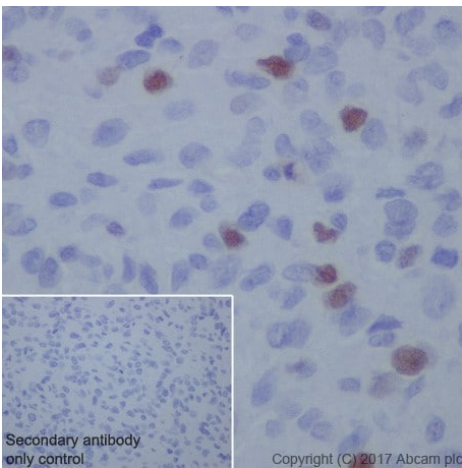


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded human bladder cancer tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on vascular smooth muscle of human bladder cancer. Negative staining on tumor cells. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

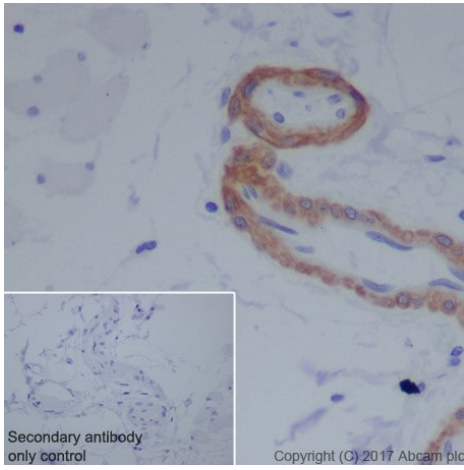


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded human gastrointestinal stromal tumor (GIST) tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on scattered tumor cells of human gastrointestinal stromal tumor (PMID: 19950405). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

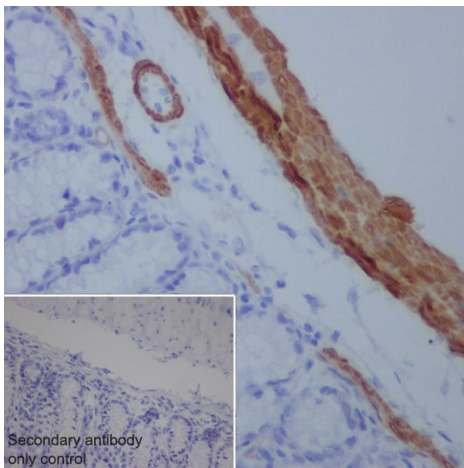


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on vascular smooth muscle of skeletal muscle. Negative staining on skeletal muscle cells. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

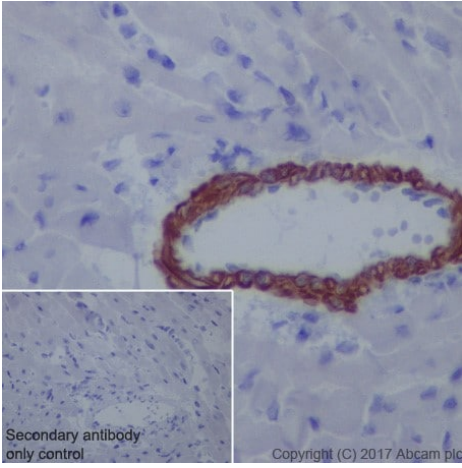


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on vascular smooth muscle and visceral smooth muscle of mouse colon is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

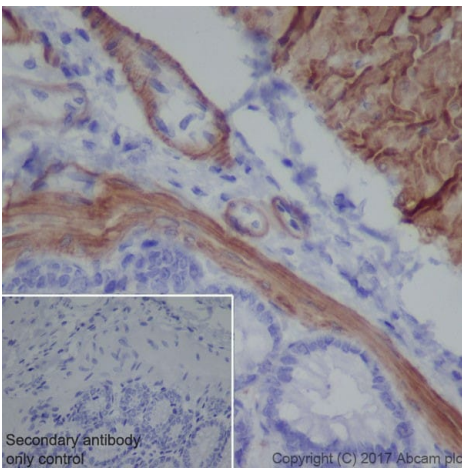


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded mouse heart tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on mouse cardiac vascular smooth muscle cells. Negative staining on myocardium. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

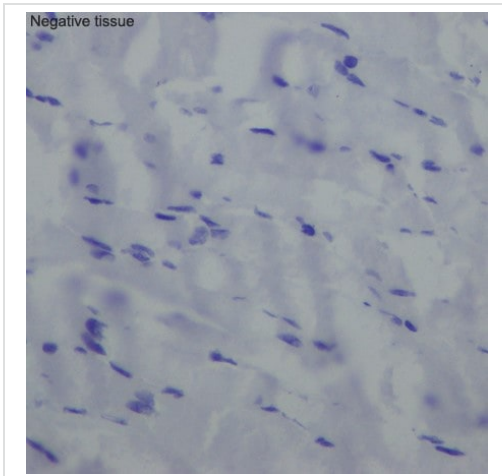


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on vascular smooth muscle and visceral smooth muscle of rat colon is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



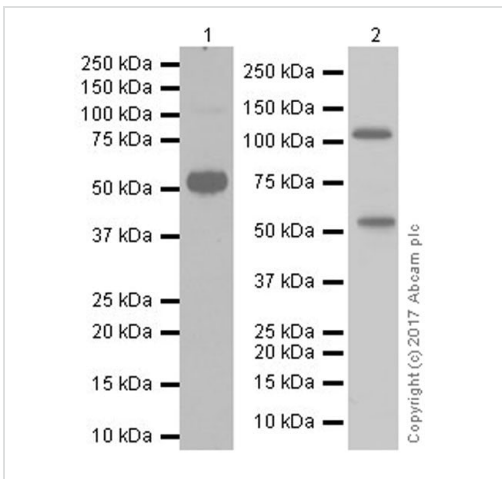
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smoothelin antibody [EPR20044] (ab219652)

Immunohistochemical analysis of paraffin-embedded rat skeletal muscle tissue labeling Smoothelin with ab219652 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Negative control: No staining on rat skeletal muscle (PMID: 8707825).

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-Smoothelin antibody [EPR20044] (ab219652)

All lanes : Anti-Smoothelin antibody [EPR20044] (ab219652) at 1/1000 dilution

Lane 1 : Human bladder lysate at 20 µg

Lane 2 : Human uterus lysate at 10 µg

Secondary

Lane 1 : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/4000 dilution

Lane 2 : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 99 kDa

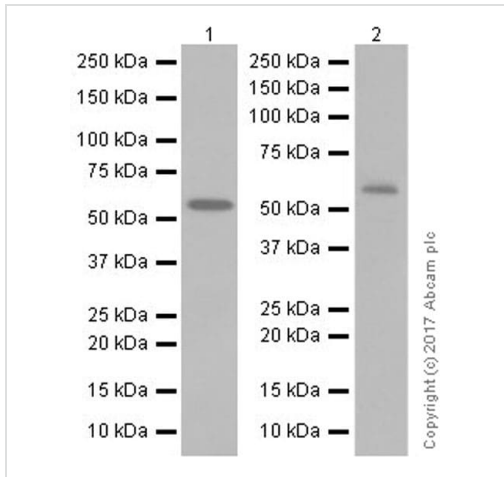
Observed band size: 110,59 kDa

[why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1: 3 minutes; Lane 2: 3 seconds.

This antibody reacts with the 59 kDa and 110 kDa bands, corresponding to isoforms A and B respectively. Smoothelin is exclusively found in smooth muscle cells (PMID:8707825).



Western blot - Anti-Smoothelin antibody
[EPR20044] (ab219652)

All lanes : Anti-Smoothelin antibody [EPR20044] (ab219652) at 1/1000 dilution

Lane 1 : Mouse colon lysate

Lane 2 : Rat colon lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 99 kDa





Observed band size: 59 kDa [why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1: 30 seconds; Lane 2: 2 seconds.

This antibody reacts with a 59 kDa band in mouse and rat colon smooth muscle.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Smoothelin antibody [EPR20044] (ab219652)

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