Product datasheet

Anti-Smoothelin antibody [EPR20044] ab219652

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: Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents
This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid
Storage buffer: Preservative: 0.01% Sodium azide
Constituents: 0.05% BSA, 40% Glycerol, 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.
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

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.
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.


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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.
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.

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.
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.

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.
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.

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