## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Smoothelin antibody [EPR20044]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EPR20044] to Smoothelin</td>
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<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, IHC-P</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human Smoothelin aa 800-900. The exact sequence is proprietary. Database link: P53814</td>
</tr>
<tr>
<td>Positive control</td>
<td>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.</td>
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<tr>
<td>General notes</td>
<td>Our RabMAb(^\circ) technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb(^\circ) patents</a>. This product is a recombinant rabbit monoclonal antibody.</td>
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## Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
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</thead>
<tbody>
<tr>
<td>Storage buffer</td>
<td>Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol, PBS</td>
</tr>
<tr>
<td>Purity</td>
<td>Protein A purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Clone number</td>
<td>EPR20044</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
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## 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.

Target

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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.

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