

DESCRIPTION

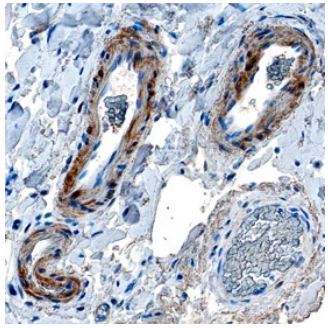
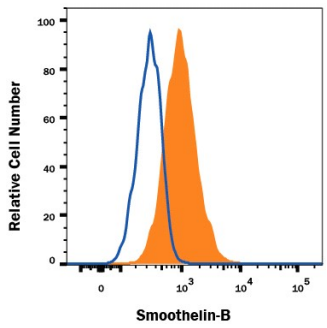
Species Reactivity	Human
Specificity	Detects human Smoothelin B in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 885424
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Smoothelin B Met1-Leu132 Accession # P53814
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	5-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Immunohistochemistry</p>  <p>Smoothelin B in Human Colon. Smoothelin B was detected in formalin fixed paraffin-embedded sections of human colon using Mouse Anti-Human Smoothelin B Monoclonal Antibody (Catalog # MAB8278) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to smooth muscle cells in vasculature. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>	<p>Intracellular Staining by Flow Cytometry</p>  <p>Detection of Smoothelin in HASMC Human Cells by Flow Cytometry. HASMC human aortic smooth muscle cells was stained with Mouse Anti-Human Smoothelin B Monoclonal Antibody (Catalog # MAB8278, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Intracellular Molecules.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Smoothelin (SMTN) is a cytoskeletal protein associated with stress fibers. It is 917 amino acids (aa) in length and shares 77% and 82% aa identity with mouse and rat SMTN. SMTN has two major isoforms, A and B with reported molecular weights of approximately 59 and 110 kDa, respectively. Isoform A is associated with visceral smooth muscle cells while isoform B is specific to vascular smooth muscle. Loss of SMTN has been associated with defects in intestinal smooth muscle cell contraction as well as increased arterial pressure and cardiac hypertrophy.