Human Smad3 Antibody

Monoclonal Rat IgG_1 Clone # 378611

Catalog Number: MAB4038

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Smad3 in direct ELISAs.
Source	Monoclonal Rat IgG_1 Clone # 378611
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Smad3 Ser2-Ala230 Accession # P84022
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.

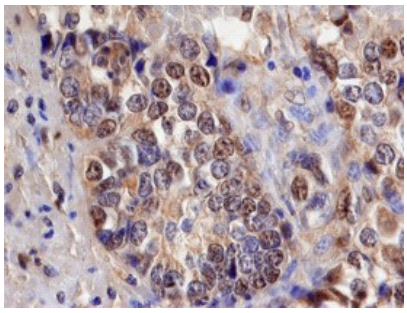
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	8-25 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.	

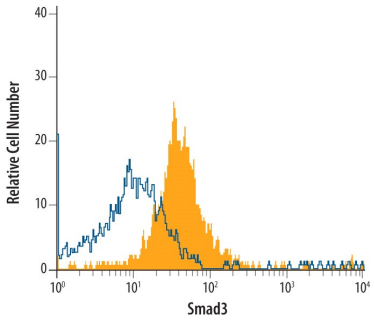
DATA

Immunohistochemistry



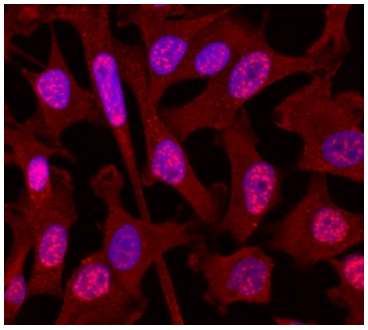
Smad3 in Human Pancreatic Cancer Tissue. Smad3 was detected in immersion fixed paraffin-embedded sections of human pancreatic cancer tissue using 15 µg/mL Rat Anti-Human Smad3 Monoclonal Antibody (Catalog # MAB4038) overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Intracellular Staining by Flow Cytometry



Detection of Smad3 in PC-3 Human Cell Line by Flow Cytometry. PC-3 human prostate cancer cell line was stained with Rat Anti-Human Smad3 Monoclonal Antibody (Catalog # MAB4038, filled histogram) or isotype control antibody (Catalog # MAB005, open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgG $F(ab')_2$ Secondary Antibody (Catalog # F0113). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with methanol.

Immunocytochemistry



Smad3 in MDA-MB-231 Human Cell Line. Smad3 was detected in immersion fixed MDA-MB-231 human breast cancer cell line using Rat Anti-Human Smad3 Monoclonal Antibody (Catalog # MAB4038) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

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Human Smad3 Antibody

Monoclonal Rat IgG_1 Clone # 378611

Catalog Number: MAB4038

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.** ● 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

Smad3 is phosphorylated in cells stimulated with TGF-β, complexes with Smad4, and translocates to the nucleus to upregulate gene transcription. Smad3 is critical for signaling fibrosis and wound healing.

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