

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Smad3 in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgG <sub>1</sub> Clone # 378611
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Smad3 Ser2-Ala230 Accession # P84022
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

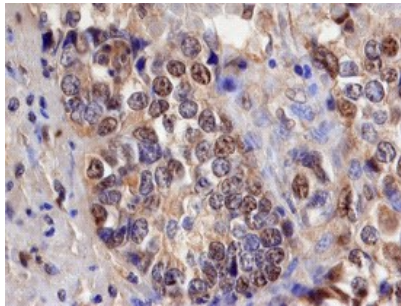
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	8-25 µg/mL	Immersion fixed MDA-MB-231 human breast cancer cell line
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Intracellular Staining by Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below

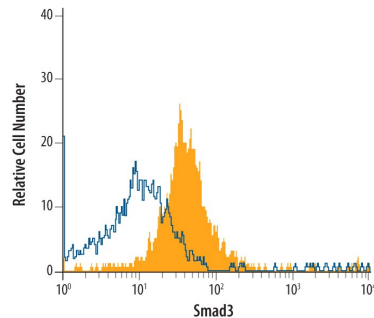
## DATA

### 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')<sub>2</sub> Secondary Antibody (Catalog # F0113). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with methanol.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.