

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Phospho-Smad2/3 when dually phosphorylated at S465/S467 and S423/S425, respectively.
<b>Source</b>	Polyclonal Rabbit Serum
<b>Purification</b>	N/A
<b>Immunogen</b>	Phosphopeptide containing human Smad3 S423/S425 sites
<b>Formulation</b>	Lyophilized from rabbit serum in PBS and Sodium Azide. See Certificate of Analysis for details.

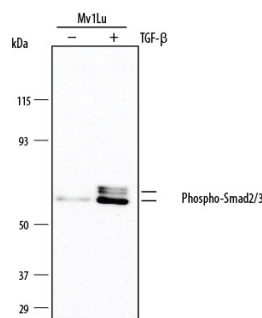
#### APPLICATIONS

**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>Western Blot</b>	1:500 dilution	See Below
<b>Immunocytochemistry</b>	1:50-1:100 dilution	See Below
<b>Simple Western</b>	1:50-1:100 dilution	See Below

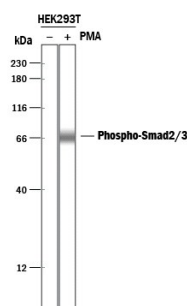
#### DATA

##### Western Blot



**Detection of Human Phospho-Smad2 (S465/S467) Smad3 (S423/S425) by Western Blot.** Western blot shows lysates of Mv1Lu mink lung epithelial cell line untreated (-) or treated (+) with 10 ng/mL Recombinant Human TGF- $\beta$ 2 (Catalog # [302-B2](#)) for 24 hours. PVDF membrane was probed with 1:500 dilution of Rabbit Anti-Human Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) Polyclonal Antibody (Catalog # AB3226), followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # [HAF008](#)). Specific bands were detected for Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

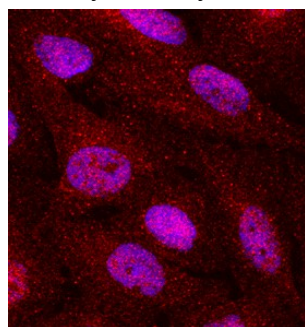
##### Simple Western



**Detection of Human Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) by Simple Western™.** Simple Western lane view shows lysates of HEK293T human embryonic kidney cell line untreated (-) or treated (+) with 200 nM PMA for 20 minutes, loaded at 0.5 mg/mL. A specific band was detected for Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) at approximately 68 kDa (as indicated) using 1:50-1:100 dilution of Rabbit Anti-Human Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) Polyclonal Antibody (Catalog # AB3226). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



##### Immunocytochemistry



**Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) in Mv1Lu Mink Cell Line.** Smad2/3 phosphorylated at S465/S467 and S423/S425 was detected in immersion fixed Mv1Lu mink lung epithelial cell line treated with 10 ng/mL of Recombinant Human TGF- $\beta$ 2 (Catalog # [302-B2](#)) using Rabbit Anti-Human Phospho-Smad2 (S465/S467)/ Smad3 (S423/S425) Polyclonal Antibody (Catalog # AB3226) at 1:50-1:100 dilution for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # [NL004](#)) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute with 250 $\mu$ L sterile PBS containing 0.02% Sodium Azide.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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 (mothers against DPP homolog 3) is a transcription factor that functions downstream of the transforming growth factor  $\beta$  receptor (TGF- $\beta$  R). Smad3 is phosphorylated in cells stimulated with TGF- $\beta$ , complexes with Smad4, and translocates to the nucleus to upregulate gene transcription. Smad3 is critical for signaling fibrosis and wound healing.