

## Anti-SMAD1/SMAD2/SMAD3/SMAD5 Antibody

Catalog Number: PA1331

### About SMAD1

SMADs are proteins that modulate the activity of transforming growth factor beta ligands. The SMADs, often in complex with other SMADs/CoSMAD, act as transcription factors that regulate the expression of certain genes. Zhu, H et al concluded that targeted ubiquitination of SMADs may serve to control both embryonic development and a wide variety of cellular responses to TGF-beta signals. R-Smads or receptor regulated Smads are a class of proteins that include SMAD1, SMAD2, SMAD3, SMAD5, and SMAD8. In response to signals by the TGF-beta superfamily of ligands these proteins associate with receptor kinases and are phosphorylated at an SSXS motif at their extreme C-terminus. These proteins then typically bind to the common mediator Smad or co-SMAD SMAD4.

### Overview

Product Name	Anti-SMAD1/SMAD2/SMAD3/SMAD5 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SMAD1/SMAD2/SMAD3/SMAD5 Antibody catalog # PA1331. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q15797

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SMAD 1/2/3/5, identical to the related mouse and rat sequences.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse</p>

## Anti-SMAD1/SMAD2/SMAD3/SMAD5 Antibody (PA1331) Images



Anti-SMAD 1/2/3/5 antibody, PA1331, Western blotting

Lane 1: Rat Heart Tissue Lysate  
Lane 2: Rat Skeletal Muscle Tissue Lysate  
Lane 3: Rat Kidney Tissue Lysate  
Lane 4: Rat Brain Tissue Lysate  
Lane 5: MM453 Cell Lysate  
Lane 6: MM231 Cell Lysate  
Lane 7: HELA Cell Lysate  
Lane 8: SMMC Cell Lysate  
Lane 9: SW620 Cell Lysate

## 5 Publications Citing This Product

1. PubMed ID: -, Hang Liang, Qian Wang, Ding Wang, Hongwu Zheng, Dhan V. Kalvakolanu, Hua Lu, Naiyan Wen, Xuyang Chen, Libo Xu, Jiaxin Ren, Baofeng Guo, Ling Zhang, RGFP966, a histone deacetylase 3 inhibitor, promotes glioma stem cell differentiation by blocking TGF-beta signaling via SMAD7, Biochemical Pharmacology, Volume 180, 2020, 114118, ISSN 0006-2952, <https://doi.org/10.1016/j.bcp.2020.114118>.
2. PubMed ID: 32826874, Hong L, Li F, Tang C, Li L, Sun L, Li X, Zhu L. Semaphorin 7A promotes endothelial to mesenchymal transition through ATF3 mediated TGF-beta2/Smad signaling. Cell Death Dis. 2020 Aug 10;11(8):695. doi:10.1038/s41419-020-02818-x. PMID:32826874; PMCID:PMC7442651.
3. PubMed ID: 25820389, Xu T, Ni Mm, Huang C, Meng Xm, He Yh, Zhang L, Li J. Inflammation. 2015 Oct;38(5):1794-804. Doi: 10.1007/S10753-015-0157-6. Nlrc5 Mediates Il-6 And Il-1?? Secretion In Lx-2 Cells And Modulated By The Nf-??b/Smad3 Pathway.

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