

**Product Name: Smad1/5/9 Rabbit Polyclonal Antibody**  
**Catalog #: APRab17987**



## Summary

<b>Production Name</b>	Smad1/5/9 Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	SMAD1/SMAD5/SMAD9
<b>Alternative Names</b>	SMAD1; BSP1; MADH1; MADR1; Mothers against decapentaplegic homolog 1; MAD homolog 1; Mothers against DPP homolog 1; JV4-1; Mad-related protein 1; SMAD family member 1; SMAD 1; Smad1; hSMAD1; Transforming growth factor-beta-signaling protein
<b>Gene ID</b>	4086/4090/4093
<b>SwissProt ID</b>	Q15797/Q99717/O15198.The antiserum was produced against synthesized peptide derived from human Smad1/5/9. AA range:10-59

## Application

<b>Dilution Ratio</b>	WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:10000, IF-P/IF-F/ICC/IF 1:50-200
<b>Molecular Weight</b>	56kDa

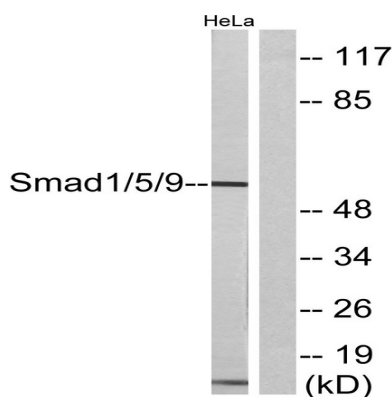
## Background

The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the *Drosophila* gene *mothers against decapentaplegic* (Mad) and the *C. elegans* gene *Sma*. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated function. Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD). PTM: Phosphorylated on serine by BMP type 1 receptor kinase. PTM: Ubiquitin-mediated proteolysis by SMAD-specific E3 ubiquitin ligase SMURF1. similarity: Belongs to the dwarfin/SMAD family. similarity: Contains 1 MH1 (MAD homology 1) domain. similarity: Contains 1 MH2 (MAD homology 2) domain. subcellular location: Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4. subunit: Interacts with HGS, NANOG and ZCCHC12 (By similarity). May form trimers with another SMAD1 and the co-SMAD SMAD4. Interacts with PEBP2-alpha subunit, CREB-binding protein (CBP), p300, SMURF1, SMURF2 and HOXC8. Associates with ZNF423 or ZNF521 in response to BMP2 leading to activate transcription of BMP target genes. Interacts with LBXCOR1. tissue specificity: Ubiquitous. Highest expression seen in the heart and skeletal muscle.

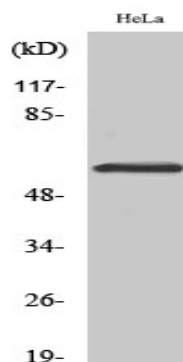
## Research Area

TGF-beta;

## Image Data



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Western Blot analysis of various cells using Smad1/5/9 Polyclonal Antibody diluted at 1 : 500

### **Note**

For research use only.