

**Product Name: Smad2/3 (Acetyl-Lys19) Rabbit Polyclonal Antibody**  
**Catalog #: APRab06256**

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## Summary

<b>Production Name</b>	Smad2/3 (Acetyl-Lys19) Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	IHC-P,IF-P,IF-F,ICC/IF,WB
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Acetyl Antibody
<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>	Smad2/3 (Acetyl-Lys19)
<b>Alternative Names</b>	
<b>Gene ID</b>	4088/4087
<b>SwissProt ID</b>	Q15796/P84022. Synthesized peptide derived from human Smad2/3 (Acetyl-Lys19)

## Application

<b>Dilution Ratio</b>	IHC-P 1:50-200, WB 1:500-2000, IF-P/IF-F/ICC/IF 1:50-200
<b>Molecular Weight</b>	60kDa

## Background

The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila

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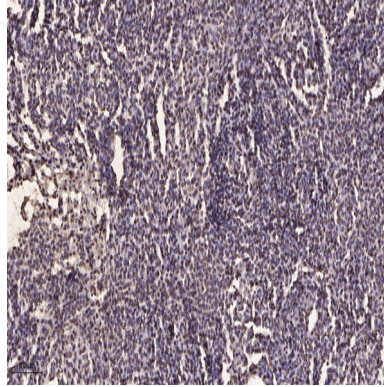
gene &apos;mothers against decapentaplegic&apos; (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. The phosphorylation induces the dissociation of this protein with SARA and the association with the family member SMAD4. The association with SMAD4 is important for the translocationdisease:Defects in SMAD2 are found in sporadic cases of colorectal carcinoma.,function:Transcriptional modulator activated by TGF-beta and activin type 1 receptor kinase. SMAD2 is a receptor-regulated SMAD (R-SMAD). May act as a tumor suppressor in colorectal carcinoma.,PTM:Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo.,PTM:In response to TGF-beta, ubiquitinated by NEDD4L; which promotes its degradation.,PTM:Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, phosphorylated on Ser-240 by CaMK2. Phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin.,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:Found in a complex with SMAD3 and TRIM33 upon addition of TGF-beta. Interacts with SMAD3 and TRIM33. Interacts with SARA (SMAD anchor for receptor activation); may form trimers with the SMAD4 co-SMAD. Interacts with FOXH1, homeobox protein TGIF, PEBP2-alpha subunit, CREB-binding protein (CBP), EP300 and SKI. Interacts with SNON; when phosphorylated at Ser-465/467. Interacts (via PY-motif) with SMURF2. Interacts with AIP1 and HGS. Interacts with NEDD4L in response to TGF-beta (By similarity). Interacts with LBXCOR1 and CORL2.,tissue specificity:Expressed at high levels in skeletal muscle, heart and placenta.,

## Research Area

## Image Data

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Immunohistochemical analysis of paraffin-embedded human brain tumor. 1, Antibody was diluted at 1:200 (4° overnight) .  
2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min) .

### **Note**

For research use only.