

产品名称: Smad2/3 Rabbit Polyclonal Antibody
产品货号: AP Rab17992



产品概述 (Summary)

产品名称 (Production Name)	Smad2/3 Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,ELISA
种属反应性 (Reactivity)	Human,Mouse,Rat,Monkey,Other

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	SMAD2/SMAD3 SMAD2; MADH2; MADR2; Mothers against decapentaplegic homolog 2; MAD homolog 2; Mothers against DPP homolog 2; JV18-1; Mad-related protein 2; hMAD-2; SMAD family member 2; SMAD 2; Smad2; hSMAD2; SMAD3; MADH3; Mothers against decapentaplegic
别名 (Alternative Names)	
基因 ID (Gene ID)	4087/4088
蛋白 ID (SwissProt ID)	Q15796/P84022.The antiserum was produced against synthesized peptide derived from human Smad2/3. AA range:1-50

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:20000
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蛋白分子量 (Molecular Weight) 48kDa

研究背景 (Background)

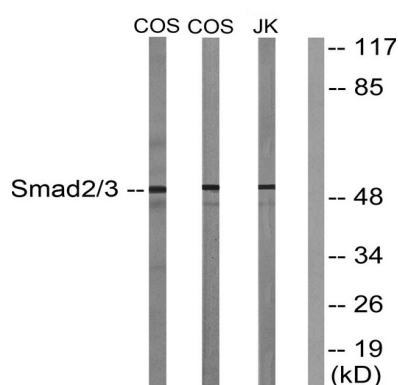
The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the *Drosophila* gene *mothers against decapentaplegic* (Mad) and the *C. elegans* gene *Sma*. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signal of the transforming growth factor (TGF)- β , and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF- β receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF- β signal, this protein is phosphorylated by the TGF- β 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 translocation. Defects in SMAD2 are found in sporadic cases of colorectal carcinoma. **function:** Transcriptional modulator activated by TGF- β 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- β 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- β , 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- β , phosphorylated on Ser-465/467 by TGF- β 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- β 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- β . 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- α 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- β (By similarity). Interacts with LBXCOR1 and CORL2. **tissue specificity:** Expressed at high levels in skeletal muscle, heart and placenta.

研究领域 (Research Area)

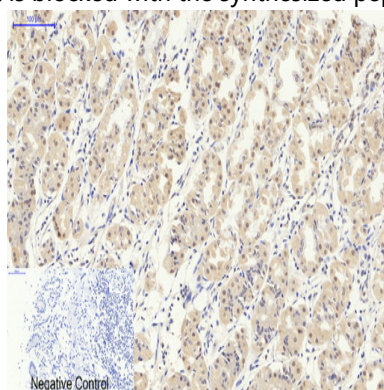
Regulates Angiogenesis; Cell_Cycle_G1S; Cell_Cycle_G2M_DNA; Protein_Acetylation

图片 (Image Data)

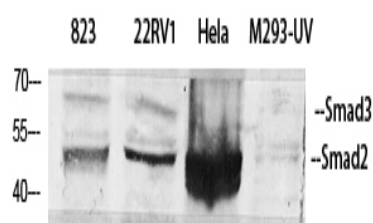
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Western blot analysis of lysates from COS7 and Jurkat cells, treated with UV 15', using Smad2/3 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded Human-stomach tissue. 1, Smad2/3 Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Western Blot analysis of various cells using Smad2/3 Polyclonal Antibody diluted at 1: 500

注意事项 (Note)

For research use only.