



Smad 1 Rabbit mAb

Catalog No	YP-rAb-17469
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,ELISA
Gene Name	SMAD1
Protein Name	Mothers against decapentaplegic homolog 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	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 1 ; BSP-1
Observed Band	52kD
Calculated Molecular Weight	52kD
Cell Pathway	Cytoplasm . Nucleus . Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4 (PubMed:15647271). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15647271). Exported from the nucleus to the cytoplasm when dephosphorylated (By similarity).
Tissue Specificity	Ubiquitous. Highest expression seen in the heart and skeletal muscle.
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.

Background

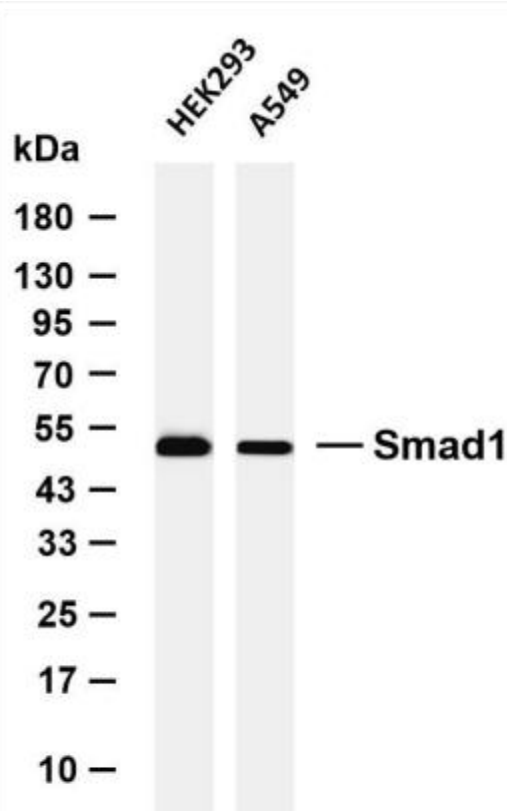
The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. 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-med

matters needing attention

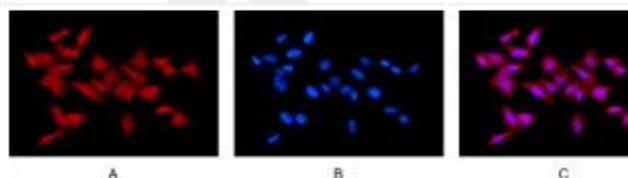
Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-Smad1 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: A549 Predicted band size: 52kDa Observed band size: 52kDa



Immunofluorescence analysis of HEK293. Picture A: Smad1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

