



Smad1 (phospho Ser465) Polyclonal Antibody

Catalog No	YP-Ab-01338
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	SMAD1
Protein Name	Mothers against decapentaplegic homolog 1
Immunogen	The antiserum was produced against synthesized peptide derived from human Smad1 around the phosphorylation site of Ser465. AA range:416-465
Specificity	Phospho-Smad1 (S465) Polyclonal Antibody detects endogenous levels of Smad1 protein only when phosphorylated at S465.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
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
Observed Band	60kD
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	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.,

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

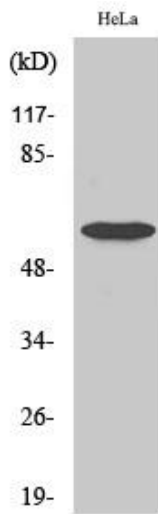
Avoid repeated freezing and thawing!

Usage suggestions

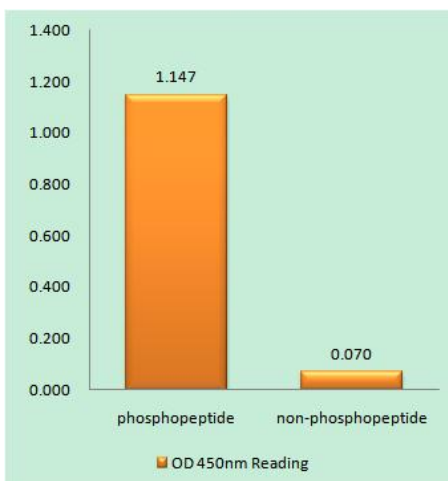
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



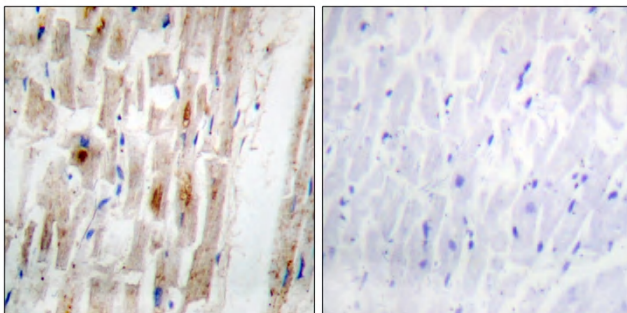
Products Images



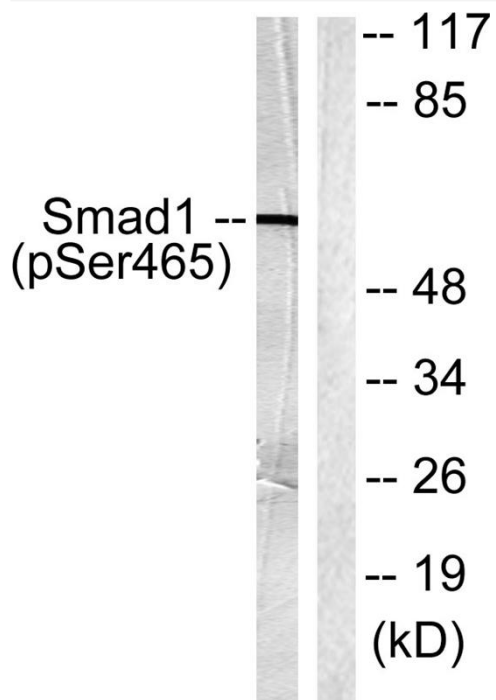
Western Blot analysis of various cells using Phospho-Smad1 (S465) Polyclonal Antibody



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Smad1 (Phospho-Ser465) Antibody



Immunohistochemistry analysis of paraffin-embedded human heart, using Smad1 (Phospho-Ser465) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with Serum 10% 15', using Smad1 (Phospho-Ser465) Antibody. The lane on the right is blocked with the phospho peptide.