PRODUCT DATA SHEET

Smad2 Polyclonal Antibody

Catalog No.	IPB0195
Reactivity	Human; Mouse; Rat
Applications	WB; IHC-p; IF/ICC; ELISA
Dilution	WB: 1:500-1:2000 IHC: 1:50-1:200 IF: 1:50-1:200 ELISA: 1:10000
Gene Name	SMAD2
Protein Name	Mothers against decapentaplegic homolog 2
Human Gene Id	4087
Swiss-Prot	Q15796
Formulation	Liquid in PBS containing 50% glycerol, 05% BSA and 002% sodium azide
Source	Rabbit
Purification	The antibody was affinity-purified from rabbit antiserum by affinity- chromatography using epitope-specific immunogen
Concentration	1 mg/ml
Storage&Stability	-20°C/1 year
Subcellular Location	Cytoplasm Nucleus Cytoplasmic and nuclear in the absence of IGF-beta On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (PubMed:9865696, PubMed:21145499) On dephosphorylation by phosphatase PPM1A, released from the SMAD2:SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081) Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm at the blastocyst and epiblast stages (By similarity)
MW	52306
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)-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 translocation

Products Images:

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Immunofluorescence analysis of Hela cell. 1,Smad2 Polyclonal Antibody(red) was diluted at 1:200(4° overnight). β-tubulin Monoclonal Antibody(M7)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



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



Immunofluorescence analysis of HeLa cells, using Smad2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from RAW264.7 and 293 cells, using Smad2 Antibody. The lane on the right is blocked with the synthesized peptide.