

Smad2 (phospho Thr220) rabbit pAb**Cat#: orb769031 (Manual)**

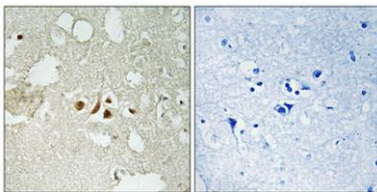
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Product Name	Smad2 (phospho Thr220) rabbit pAb
Host species	Rabbit
Applications	WB;IHC;IF;ELISA
Species Cross-Reactivity	Human;Mouse;Rat
Recommended dilutions	WB 1:500-2000,Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000,WB 1:500-2000
Immunogen	The antiserum was produced against synthesized peptide derived from human Smad2 around the phosphorylation site of Thr220. AA range:186-235
Specificity	Phospho-Smad2 (T220) Polyclonal Antibody detects endogenous levels of Smad2 protein only when phosphorylated at T220.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	Mothers against decapentaplegic homolog 2
Gene Name	SMAD2
Cellular localization	Cytoplasm . Nucleus . Cytoplasmic and nuclear in the absence of TGF-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/SMAD
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

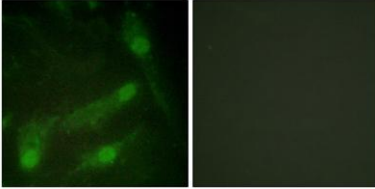
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	
Human Gene ID	4087
Human Swiss-Prot Number	Q15796
Alternative Names	SMAD2; MADH2; MADR2; Mothers against decapentaplegic homolog 2; MAD homolog 2; Mothers against DPP homolog 2; JV18-1; Mad-related protein 2; hMAD-2; SMAD family member 2; SMAD 2; Smad2; hSMAD2

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



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative ctrl (right) obtained from antibody was pre-absorbed by i



Immunofluorescence analysis of HeLa cells, using Smad2 (Phospho-Thr220) Antibody. The picture on the right is blocked with the phospho peptide.