# (KO Validated) SMAD2 Polyclonal Antibody

Catalog Number:E-AB-62120 1 Publications



*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Reactivity	Human,Mouse,Rat
Immunogen	A synthetic peptide of human SMAD2 (NP_001003652.1).
Host	Rabbit
Isotype	IgG
Purification	Affinity purification
Conjugation	Unconjugated
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Applications	Recommended Dilution
WB	1:500-1:2000
IHC	1:50-1:200
IF	1:50-1:200
Data	



Western blot analysis of extracts from normal (control) and SMAD2 knockout (KO) HeLa cells using SMAD2 Polyclonal Antibody at dilution of 1:1000. **Observed Mw:60kDa** Calculated Mw:48kDa/52kDa



Immunohistochemistry of paraffin-embedded Mouse spleen using SMAD2 Polyclonal Antibody at dilution of 1:100 (40x lens).



Western blot analysis of extracts of various cell lines using SMAD2 Polyclonal Antibody at dilution of 1:1000.



Immunofluorescence analysis of HeLa cells using SMAD2 Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.

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Immunofluorescence analysis of NIH/3T3 cells using SMAD2 Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using SMAD2 Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.

## **Preparation & Storage**

Storage

Store at -20°C. Avoid freeze / thaw cycles.

#### 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 of this protein into the nucleus, where it binds to target promoters and forms a transcription repressor complex with other cofactors. This protein can also be phosphorylated by activin type 1 receptor kinase, and mediates the signal from the activin. Alternatively spliced transcript variants have been observed for this gene.

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