



Smad2 (phospho Ser465) rabbit pAb

Cat No.:ES6155

For research use only

Overview

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| Product Name | Smad2 (phospho Ser465) rabbit pAb |
| Host species | Rabbit |
| Applications | WB;IHC;IF;ELISA |
| Species Cross-Reactivity | Human;Mouse;Rat |
| Recommended dilutions | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. |
| Immunogen | Synthesized phospho-peptide around the phosphorylation site of human Smad2 (phospho Ser465) |
| Specificity | Phospho-Smad2 (S465) Polyclonal Antibody detects endogenous levels of Smad2 protein only when phosphorylated at S465. |
| 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 | 52kD |
| Human Gene ID | 4087 |
| Human Swiss-Prot Number | Q15796 |
| Alternative Names | SMAD2; MADH2; MADR2; Mothers against |

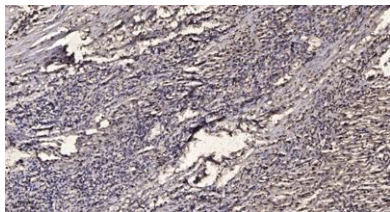




Background

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

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 liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

