Smad2 Polyclonal Antibody

E20-53458

Catalog Number:E20-53458

Product name: Smad2 Polyclonal Antibody

Amount:100ul

Applications:WB

Reactivity:,Human,

Gene Name:SMAD2

Protein Name: Mothers against decapentaplegic homolog 2

Human Gene Id:4087

Human Swiss Prot No:Q15796

Mouse Swiss Prot No:Q62432

Immunogen: Synthesized peptide derived from human Smad2 around the non-phosphorylation site of S465.

Specificity: The antibody detects endogenous Smad2 protein.

Formulation:PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.

Source: Rabbit

Dilution: Western Blot: 1/500 - 1/2000

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Storage Stability:-20°C/1 year

Other 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

Observed Band(KD):60

Background:SMAD family member 2(SMAD2) Homo sapiens 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.

Function:disease:Defects in SMAD2 are found in sporadic cases of colorectal carcinoma.,function:Transcriptional modulator activated by TGF-beta and activin type 1 receptor kinase. SMAD2 is a receptor-regulated SMAD (R-SMAD). May act as a tumor suppressor in colorectal carcinoma.,PTM:Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo.,PTM:In response to TGF-beta, ubiquitinated by NEDD4L; which promotes its degradation.,PTM:Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON.

Subcellular Location:nuclear chromatin,nucleus,nucleoplasm,transcription factor complex, cytoplasm, cytosol, integral component of membrane,activin responsive factor complex,SMAD protein complex, SMAD2- SMAD3 protein complex.

Expression: Chronic myeloid leukemia cell,Colon adenocarcinoma,Epithelium,Kidney,Pancreas.