

## Recombinant Human SMAD2 Protein, MYC/DDK-tagged

Cat. No. SMAD2-1915H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant human SMAD2 protein, fused to MYC/DDK-tagged at C-terminus, was expressed in HEK293

**Species** Human

**Source** HEK293

**Description** 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. [provided by RefSeq, May 2012].

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**Form** 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

**Molecular Mass** 52.1 kDa

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Concentration** >50 ug/mL as determined by microplate BCA method

## GENE INFORMATION

**Gene Name** SMAD2 SMAD family member 2 [ Homo sapiens ]

**Official Symbol** SMAD2

**Synonyms** hMAD-2; hSMAD2; JV18; JV18-1; MADH2; MADR2

**Gene ID** 4087

**mRNA Refseq** NM\_001003652

**Protein Refseq** NP\_001003652

**MIM** 601366

**UniProt ID** Q15796

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