

## Recombinant Human SMAD2 Protein, His-tagged

Cat. No. SMAD2-306H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human SMAD2(Trp274~Ser467) fused with His tag at N-terminal was expressed in E. coli.

**Species** Human

**Source** E.coli

**ProteinLength** Trp274~Ser467

#### 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.

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<b>Form</b>	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
<b>Molecular Mass</b>	23.13kDa
<b>Endotoxin</b>	<1.0EU per 1ug (determined by the LAL method)
<b>Purity</b>	> 95%
<b>Applications</b>	Positive Control; Immunogen; SDS-PAGE; WB. If bio-activity of the protein is needed, please check active protein
<b>Stability</b>	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
<b>Reconstitution</b>	Reconstitute in PBS or others

## GENE INFORMATION

<b>Gene Name</b>	SMAD2 SMAD family member 2 [ Homo sapiens ]
<b>Official Symbol</b>	SMAD2
<b>Synonyms</b>	SMAD2; SMAD family member 2; MAD, mothers against decapentaplegic homolog 2 (Drosophila) , MADH2, SMAD, mothers against DPP homolog 2 (Drosophila); mothers against decapentaplegic homolog 2; JV18 1; MADR2; MAD homolog 2; mother against DPP homolog 2; Sma- and Mad-related protein 2; SMAD, mothers

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against DPP homolog 2; JV18; MADH2; JV18-1; hMAD-2; hSMAD2; MGC22139; MGC34440;

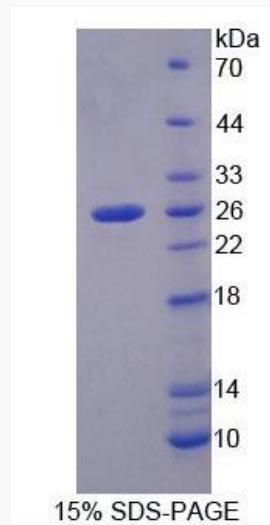
**Gene ID** 4087

**mRNA Refseq** NM\_001003652

**Protein Refseq** NP\_001003652

**MIM** 601366

**UniProt ID** Q15796



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