

Recombinant Human SMAD2 protein, GST-tagged

Cat. No. SMAD2-294H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SMAD2 (C-terminal SXS deletion) fused with GST tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
Description	SMADs are essential intracellular components for the signal transduction of TGFbeta family members. SMAD2 is an intracellular mediator of TGFbeta family and activin type 1 receptor. SMAD2 mediate TGFbeta signaling to regulate cell growth and differentiation. SMAD2 is released from cytoplasmic retention by TGFbeta receptor-mediated phosphorylation. The phosphorylated SMAD2 then forms a heterodimeric complex with SMAD4, and this complex translocates from cytoplasm into nucleus. By interacting with DNA-binding proteins, SMAD2 complexes then positively or negatively regulate the transcription of target genes. Inactivating mutations in SMAD2 have been found in various cancers.
Form	50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Molecular Mass	90 kDa
Purity	> 70%
Applications	Western Blot

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Stability	1 year at -70 centigrade from the date of shipment.
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1µg/µl
GENE INFORMATION	
Gene Name	SMAD2 SMAD family member 2 [Homo sapiens]
Official Symbol	SMAD2
Synonyms	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 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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Chromosome Location	18q21
Pathway	Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Cell cycle, organism-specific biosystem; Cell cycle, conserved biosystem; Chagas disease (American trypanosomiasis), organism-specific biosystem; Chagas disease (American trypanosomiasis), conserved biosystem;
Function	contributes_to DNA binding; I-SMAD binding; R-SMAD binding; SMAD binding; activating transcription factor binding; chromatin binding; co-SMAD binding; double-stranded DNA binding; phosphatase binding; protein binding; sequence-specific DNA binding transcription factor activity; contributes_to sequence-specific DNA binding transcription factor activity; transcription factor binding; transforming growth factor beta receptor binding; transforming growth factor beta receptor, pathway-specific cytoplasmic mediator activity; type I transforming growth factor beta receptor binding; ubiquitin protein ligase binding;
	