

Recombinant Human SMAD Family Member 2, GST-tagged

Cat. No. SMAD2-1093H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human SMAD2 was expressed in E. coli cells using an N-terminal GST tag.
Species	Human
Source	E.coli
Description	SMAD2 is an intracellular mediator of TGF β family and activin type 1 receptor. SMAD2 mediate TGF β signaling to regulate cell growth and differentiation. SMAD2 is released from cytoplasmic retention by TGF β receptor-mediated phosphorylation. The phosphorylated SMAD2 then forms a heterodimeric complex with SMAD4, and this complex translocates from cytoplasm into nucleus.
Applications	Kinase Assay; Western Blot
Molecular Weight	90 kDa
Expression System	E. coli
Form	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1mM PMSF, 25 % glycerol.
Purity	> 90 %
Concentration	0.2 ug/ul

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Sequences	Full-length
Storage	Store product at -70°C. 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.
Pathways	Adherens junction; Alpha6-Beta4 Integrin Signaling Pathway; Cell cycle; Chagas disease (American trypanosomiasis); Colorectal cancer; EGFR1 Signaling Pathway; Endocytosis; Glypican 1 network; HTLV-I infection; Pancreatic cancer; Pathways in cancer; Regulation of cytoplasmic and nuclear SMAD2/3 signaling; Regulation of nuclear SMAD2/3 signaling; Signaling by TGF beta; TGF Beta Signaling Pathway; Wnt signaling pathway
GENE INFORMATION	
Gene Name	SMAD2 SMAD family member 2 [Homo sapiens]
Official Symbol	SMAD2
Synonyms	SMAD2; SMAD family member 2; JV18; MADH2; MADR2; JV18-1; hMAD-2; hSMAD2; MGC22139; MGC34440; mothers against decapentaplegic homolog 2; MAD homolog 2; OTTHUMP00000163489; mother against DPP homolog 2; Sma-and Mad-related protein 2; SMAD, mothers against DPP homolog 2; MAD, mothers against decapentaplegic homolog 2 (Drosophila); SMAD, mothers against DPP homolog 2 (Drosophila); Mothers against decapentaplegic homolog 2; Mothers against DPP homolog 2; Mad-related protein 2
Gene ID	4087
mRNA Refseq	NM_001003652

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Protein Refseq	NP_001003652
MIM	601366
UniProt ID	Q15796
Chromosome Location	18q21
Function	R-SMAD binding; co-SMAD binding; double-stranded DNA binding; protein binding; transcription activator activity; transcription factor activity; transcription factor binding; transforming growth factor beta receptor; type I transforming growth factor beta receptor binding; ubiquitin protein ligase binding; contributes to DNA binding; I-SMAD binding; chromatin binding; phosphatase binding; sequence-specific DNA binding transcription factor activity
PDBrendering based on 1dev.	

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