

Recombinant Human SMAD Family Member 4, GST-tagged

Cat. No. SMAD4-1095H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human SMAD4 was expressed in E. coli cells using an N-terminal GST tag.
Species	Human
Source	E.coli
Description	SMAD4 is a member of the SMAD family and mediates signaling by the transforming growth factor-beta superfamily and related ligands. TGF β stimulation leads to phosphorylation and activation of SMAD1, SMAD2 and SMAD3, which form complexes with SMAD4 that accumulate in the nucleus and regulate transcription of target genes. SMAD signaling is negatively regulated by inhibitory SMADs and ubiquitin-mediated processes and proteasomal degradation of SMADs depend on the direct interaction of specific E3 ligases with SMADs.
Applications	Kinase Assay; Western Blot
Molecular Weight	95 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	> 80 %

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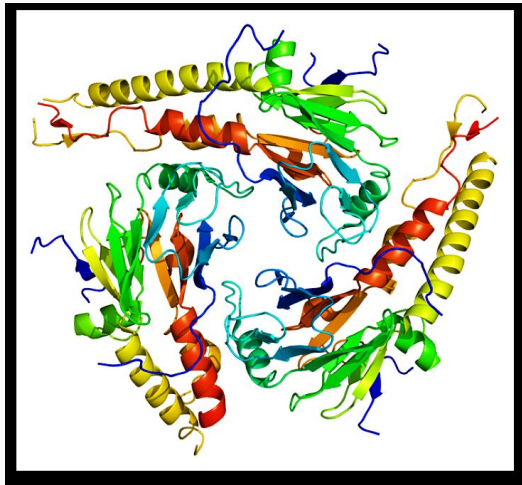
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Concentration	0.2 ug/ul
Sequences	Full-length
Storage	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	ALK1 signaling events; ALK2 signaling events; Adherens junction; Cell cycle; Colorectal cancer; 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; BMP receptor signaling; Heart Development
GENE INFORMATION	
Gene Name	SMAD4 SMAD family member 4 [Homo sapiens]
Official Symbol	SMAD4
Synonyms	SMAD4; SMAD family member 4; JIP; DPC4; MADH4; mothers against decapentaplegic homolog 4; MAD homolog 4; OTTHUMP00000163548; SMAD, mothers against DPP homolog 4; deleted in pancreatic carcinoma locus 4; deletion target in pancreatic carcinoma 4; mothers against decapentaplegic, Drosophila, homolog of, 4; MAD, mothers against decapentaplegic homolog 4 (Drosophila); SMAD, mothers against DPP homolog 4 (Drosophila); Mothers against decapentaplegic homolog 4; Mothers against DPP homolog 4; Deletion target in pancreatic carcinoma 4; Smad4
Gene ID	4089

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mRNA Refseq	NM_005359
Protein Refseq	NP_005350
MIM	600993
UniProt ID	Q13485
Chromosome Location	18q21.1
Function	R-SMAD binding; protein binding; transforming growth factor beta receptor; contributes to DNA binding; sequence-specific DNA binding transcription factor activity; core promoter proximal region sequence-specific DNA binding; transcription regulatory region DNA binding; DNA binding; I-SMAD binding; SMAD binding; chromatin binding; collagen binding; identical protein binding; contributes to protein binding transcription factor activity; protein homodimerization activity
PDBrendering based on 1dd1.	

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