

Recombinant Human SMAD2 protein, GST-tagged

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

SPECIFICATION

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| 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 |

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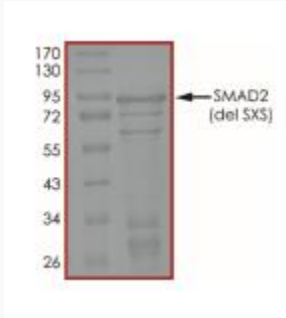
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| Stability | 1 year at -70 centigrade from the date of shipment. |
| Storage | Store product at -70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |
| Concentration | 0.1 µg/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; |
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