

## SMAD2 (del SXS) Protein

Recombinant human protein expressed in E. coli cells

**Catalog # S11-31G**

Lot # L1981-12

### Product Description

Recombinant human SMAD2 (C-terminal SXS deletion) was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is [NM\\_001003652](#).

### Gene Aliases

JV18, MADH2, MADR2, JV18-1, hMAD-2, hSMAD2, MGC22139, MGC34440

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

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.

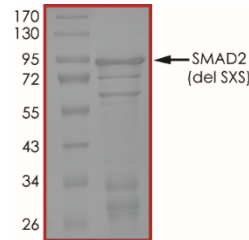
### Scientific Background

SMADs are essential intracellular components for the signal transduction of TGFβ family members. SMAD2 is an intracellular mediator of TGFβ family and activin type 1 receptor (1). SMAD2 mediate TGFβ signaling to regulate cell growth and differentiation. SMAD2 is released from cytoplasmic retention by TGFβ 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 (2).

### References

- Masayuki, F. et al: Identification and Characterization of Constitutively Active Smad2 Mutants: Evaluation of Formation of Smad Complex and Subcellular Distribution. *Molecular Endocrinol.* 2000; 14 (10): 1583-1591.
- Eppert, K. et al: MADR2 maps to 18q21 and encodes a TGF-beta-regulated MAD-related protein that is functionally mutated in colorectal carcinoma. *Cell.* 1996; 86: 543-552.

### Purity



The purity was determined to be **>70%** by densitometry. Approx. MW **90kDa**.

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Catalog #	S11-31G
Lot #	L1981-12
Purity	>70%
Concentration	0.1 µg/µl
Stability	1yr at -70°C from date of shipment
Storage & Shipping	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. Product shipped on dry ice.

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