

SMAD4 Protein

Full-length recombinant protein expressed in E. coli cells

Catalog # S13-30G

Lot # V036-1

Product Description

Recombinant full-length human SMAD4 was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is [NM_005359](#).

Gene Aliases

JIP, DPC4, MADH4

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.

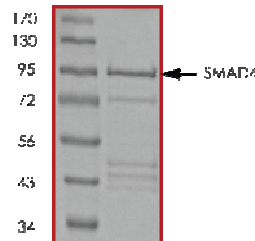
Scientific Background

SMAD4 is a member of the SMAD family and mediates signaling by the transforming growth factor-beta (TGFβ) superfamily and related ligands (1). TGFβ 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. SMAD4 is targeted for degradation by multiple ubiquitin ligases that can simultaneously act on R-SMADs and signaling receptors. Such mechanisms of down-regulation of TGFβ signaling via degradation of SMADs may be critical for proper physiological response to this pathway (2).

References

- Heldin, C.H. et al: TGF-beta signalling from cell membrane to nucleus through SMAD proteins". *Nature*, 1997, 390 (6659): 465-71.
- Attisano, L. et al: Mads and Smads in TGF beta signalling". *Curr. Opin. Cell Biol.* 1998; 10 (2): 188-94.

Purity



The purity of SMAD4 was determined to be **>80%** by densitometry. Approx. MW **95kDa**.

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Catalog Number **S13-30G**

Specific Lot Number **V036-1**

Purity **>80%**

Concentration **0.2 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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