

SMAD3 Protein

Full-length recombinant protein expressed in E. coli cells

Catalog # S12-30G

Lot # W245-3

Product Description

Recombinant full-length human SMAD3 was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is [NM_005902](#).

Gene Aliases

MADH3, JV15-2, HSPC193, HsT17436, MGC60396, DKFZP586N0721, DKFZp686J10186

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.

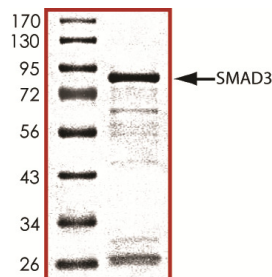
Scientific Background

SMAD3 is a direct mediator of transcriptional activation by the TGFβ receptor. The activity of SMAD3 is regulated by the TGFβ receptors, and SMAD3 is phosphorylated and associated with the ligand-bound receptor complex. TGFβ stimulation leads to phosphorylation and activation of SMAD3, which form a complex with SMAD4 that accumulate in the nucleus and regulate transcription of target genes such as CDK inhibitor (1). SMAD3 containing a C-terminal truncation acts as a dominant-negative inhibitor of the normal TGFβ response. SMAD3 is a major physiologic substrate of the G1 cyclin-dependent kinases CDK4 and CDK2 (2).

References

- Inman, G. J. et al: Nucleocytoplasmic shuttling of Smads 2, 3, and 4 permits sensing of TGF-beta receptor activity. *Molec. Cell* 10: 283-294, 2002.
- Matsuura, I. et al: Cyclin-dependent kinases regulate the antiproliferative function of Smads. *Nature* 430: 226-231, 2004.

Purity



The purity was determined to be **>80%** by densitometry. Approx. MW **77kDa**.

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Catalog Number	S12-30G
Specific Lot Number	W245-3
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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