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Product Information

SMAD3, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5132**
Storage Temperature –70 °C

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

Product Description

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 forms a complex with SMAD4 that accumulates in the nucleus and regulates 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 G_1 cyclin-dependent kinases CDK4 and CDK2.[2]

Recombinant, full-length, human SMAD3 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_005902. 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, 0.1 mM PMSF,and 25% glycerol.

Molecular mass: ~77 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

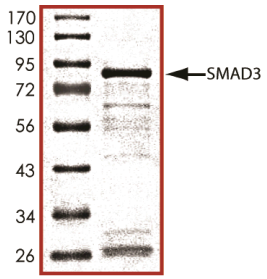
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. 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).
2. Matsuura, I. et al., Cyclin-dependent kinases regulate the antiproliferative function of Smads. Nature, **430**, 226-231 (2004).

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