

Datasheet for 009-001-T40S**SMAD4 protein-GST fusion****Overview**

Description:	SMAD4 recombinant protein-GST fusion protein - 009-001-T40S
Item No.:	009-001-T40S
Size:	20 µg
Origin:	Human
Expressed in:	E. coli

Product Details

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). SMAD4 Protein is ideal for investigators involved in Signaling Proteins, Transcription Proteins, AKT/PKB Pathway, Angiogenesis, Cancer, Cell Cycle, Cellular Stress, ERK/MAPK Pathway, Inflammation, JAK/STAT Pathway, JNK/SAPK Pathway, NfκB Pathway, and WNT Signaling research.
Synonyms:	JIP, DPC4, MADH4, Mothers against decapentaplegic homolog 4, MAD homolog 4, Mothers against DPP homolog 4, Deletion target in pancreatic carcinoma 4, SMAD family member 4
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein

Target Details

Gene Name:	SMAD4
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Purity/Specificity: Recombinant full-length human SMAD4 was expressed in E. coli cells using an N-Terminal Glutathione-S-Transferase fusion protein. The purity was determined to be >80% by densitometry.

Relevant Links:

- [NCBI - NM_005359](#)

Application Details

Application Note: SMAD4 Protein is stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol. SMAD4 Protein is suitable for use in Western Blot and Kinase Assay. Expect a band approximately ~95kDa on specific lysates or tissues. Specific conditions for reactivity should be optimized by the end user.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

WB: User Optimized

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 0.2 µg/µL

Buffer: See application note.

Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: 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.

Expiration: Expiration date is one (1) year from date of receipt.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.