

Datasheet for 009-001-T37S**SMAD1 protein-GST fusion****Overview**

Description:	SMAD1 recombinant protein-GST fusion protein - 009-001-T37S
Item No.:	009-001-T37S
Size:	20 µg
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	SMAD1 is a member of the SMAD family which are signal transducers and transcriptional modulators that mediate multiple signaling pathways. The actions of bone morphogenetic proteins (BMPs) are mediated by SMAD1 and SMAD1 can be phosphorylated and activated by the BMP receptor kinase (1). Phosphorylated SMAD1 forms a complex with SMAD4 that is important for its function in the transcription regulation. The SMAD1-SMAD4 complex is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. The formation of a complex between STAT3 and SMAD1, bridged by p300, is involved in the cooperative signaling of LIF and BMP2 and the subsequent induction of astrocytes from neuronal progenitors (2). SMAD1 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:	BSP1, JV41, JV4-1, MADH1, MADR1, Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, JV4-1, Mad-related protein 1, SMAD family member 1, SMAD 1, Smad1, Transforming growth factor-beta-signaling protein 1, BSP-1, MADH1, MADR1
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein

Target Details

Gene Name:	SMAD1
-------------------	-------

Purity/Specificity:	Recombinant full-length human SMAD1 was expressed in E. coli cells using an N-Terminal Glutathione-S-Transferase fusion protein. The purity was determined to be >85% by densitometry.
----------------------------	--

Relevant Links:	• NCBI - NM_005900
------------------------	--

Application Details

Application Note:	SMAD1 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. SMAD1 Protein is suitable for use in Western Blot and Kinase Assay. Expect a band approximately ~83kDa 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 by UV absorbance at 280 nm
-----------------------	--------------------------------------

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.