

Datasheet for ABIN6700543 **SMAD1 Protein (GST tag)**

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Overview

Quantity:	20 µg
Target:	SMAD1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMAD1 protein is labelled with GST tag.
Application:	Western Blotting (WB)

Product Details

Purpose:	SMAD1 recombinant protein-GST fusion protein
Purification:	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.
Purity:	>85%

Target Details

Target:	SMAD1
Alternative Name:	SMAD1 (SMAD1 Products)
Background:	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,

Target Details

MADH1, MADR1

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.

NCBI Accession: [NM_005900](#)

Pathways: [Stem Cell Maintenance](#), [Regulation of Muscle Cell Differentiation](#), [Skeletal Muscle Fiber Development](#)

Application Details

Application Notes: Application Note: SMAD1 Protein is 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, 25 % glycerol. SMAD1 Protein is suitable for use in Western Blot and Kinase Assay. Expect a band approximately ~83 kDa on specific lysates or tissues. Specific conditions for reactivity should be optimized by the end user.

Western Blot Dilution: User Optimized

Other: Kinase Assay-User Optimized

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.2 µg/µL

Buffer: SMAD1 Protein is 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, 25 % glycerol.

Storage: -80 °C

Handling

Storage Comment: 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.

Expiry Date: 12 months