



# Recombinant Protein Technical Manual

## Recombinant Human SMAD1 Protein (GST Tag)

RPES5127

### Product Data:

**Product SKU:** RPES5127

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q15797

### Protein Information:

**Molecular Mass:** 78.7 kDa

**AP Molecular Mass:** 28&89 kDa

**Tag:** N-GST

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM TrisHCl, 150mM NaCl, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Mothers Against Decapentaplegic Homolog 1; MAD Homolog 1; Mothers Against DPP Homolog 1; JV4; Mad-Related Protein 1; SMAD Family Member 1; Transforming Growth Factor-Beta-Signaling Protein 1; BSP; SMAD1; BSP1; MADH1; SMAD 1; Smad1; hSMAD1; MADR1

## Immunogen Information:

**Sequence:** Met 1-Ser465

## Background:

SMAD Family Member 1 (SMAD1) is a member of the dwarfin/SMAD family. SMAD1 has the highest expression in the heart and skeletal muscle, containing one MAD homology 1 domain and one MAD homology 2 domain. As a transcriptional modulator SMAD 1 is activated by bone morphogenetic proteins type 1 receptor kinase. Defects in SMAD1 may cause primary pulmonary hypertension (PPH1), characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead to elevated pulmonary arterial pressure, right ventricular failure and death.