Data Sheet (Cat.No.TMPJ-01129)

TargetMol

SMAD1 Protein, Human, Recombinant (GST)

General Information

Synonyms:	hSMAD1;Transforming Growth Factor-Beta-Signaling Protein 1;Transforming Growth Factor-β-Signaling Protein 1;Mothers Against DPP Homolog 1;MADH1;SMAD Family Member 1;BSP1;Mad-Related Protein 1;SMAD 1;JV4-1;BSP-1;SMAD1;Mothers Against Decapentaplegic Homolog 1;MAD Homolog 1;MADR1
Protein Construction:	Met1-Ser465
Species:	Human
Expression Host:	E. coli
Accession:	Q15797
Molecular Weight:	58-80 KDa (reducing condition)
AA Sequence:	Met1-Ser465

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris-HCl, 150 mM NaCl, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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 pression, right ventricular failure and death.

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