

Recombinant Human SMAD1 protein, GST-tagged

Cat. No. SMAD1-43H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SMAD1(Met1-Ser465) fused with GST tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-465 a.a.
Description	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.
Form	Lyophilized from a 0.2 µm filtered solution of 20mM TrisHCl, 150mM NaCl, pH 8.0.
AA Sequence	MSPILGYWKIKGLVQPTRLLEYLEEKYEEHLYERDEGDKWRNKKFELGLEFPNLPY YIDGDVKL TQSMAIIRYIADKHNMLGGCPKERAIEISMLEGAVLDIRYGVSR IAYSKDF ETLKVDFLSKLPEML KMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLD AFPKLVCFKKRIEAI PQIDKYLKS SKYIAWPLQGWQATFGGGDHPPKSDLVPRGSH MNVTSLSFSTSPAVKRLLGWKQGDEEEKWAEKA VDALVKKLKKKKGAMEEELEKAL SCPGQPSNCVTIPRSLDGR LQVSHRKGLPHVIYCRVWRWPD LQ SHHELKPLECCE

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PFFGSKQKEVCINPYHYKRVESPVLPVLVPRHSEYNPQHSLLAQFRNLGQNE PHM
 PLNATFPDSFQQPNSHPFPHSPNSSYPNSPGSSSSTYPHSPTSSDPGSPFQMPAD
 TPPPAYL PPEDPMTQDGSQPMDTNMMAPPLPSEINRGDVQAVAYEEPKHWCSIVY
 YELNNRVGEAFHASSTS VLVDGFTDPSNNKNRFLGLLSNVNRNSTIENTRRHIGK
 GVHLYYVGGEVYAECLSDSSIFVQSR NCNYHHGFHPTTVCKIPSGCSLKIFNNQEFA
 QLLAQSVNHGFETVYELTKMCTIRMSFVKGWGAE YHRQDVTSTPCWIEIHLHGPLQ
 WLDKVLTMGSPHNPISSVS

Endotoxin Less than 0.1 ng/g (1 IEU/g) as determined by LAL test.

Purity Greater than 95% as determined by reducing SDS-PAGE.

Storage

Lyophilized protein should be stored at < -20 centigrade, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at 4-7 centigrade for 2-7 days.

Aliquots of reconstituted samples are stable at < -20 centigrade for 3 months.

Reconstitution

Always centrifuge tubes before opening. Do not mix by vortex or pipetting.

It is not recommended to reconstitute to a concentration less than 100 µg/ml.

Dissolve the lyophilized protein in ddH₂O.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name SMAD1 SMAD family member 1 [Homo sapiens]

Official Symbol SMAD1

Synonyms SMAD1; SMAD family member 1; MAD, mothers against decapentaplegic homolog 1 (Drosophila) , MADH1, SMAD, mothers against DPP homolog 1 (Drosophila); mothers against decapentaplegic homolog 1; JV4 1; MADR1; MAD homolog 1; Mad-

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related protein 1; TGF-beta signaling protein 1; mothers against DPP homolog 1; SMAD, mothers against DPP homolog 1; MAD, mothers against decapentaplegic homolog 1; transforming growth factor-beta signaling protein 1; transforming growth factor-beta-signaling protein 1; BSP1; JV41; BSP-1; JV4-1; MADH1;

Gene ID	4086
mRNA Refseq	NM_001003688
Protein Refseq	NP_001003688
MIM	601595
UniProt ID	Q15797

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