

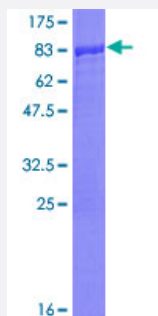
Full-Length

SMAD1 (Human) Recombinant Protein (P01)

Catalog # H00004086-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human SMAD1 full-length ORF (AAH01878.1, 1 a.a. - 465 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MNVTSLFSFTSPAVKRLLGWKQGDEEEKWAEKAVDALVKKLKKKKGAMEELEKALSCPGQPS
NCVTIPRSLDGRLQVSHRKGLPHVIYCRVWRWPDQLQSHHEKPLECCEFPFGSKQKEVCINPYHY
KRVESPVLPVLPVPRHSEYNPQHSLAQFRNLGQNEPHMPLNATFPDSFQQPNSHPFPHSPNS
SYNSPGSSSSTYPHSPTSSDPGSPFQMPADTPPPAYLPPEDPMTQDGSQPMMDTNMMAPPLP
SEINRGDVQAVAYECPKHWCSTVYYELNNRVGEAFHASSTSVLVDGFTDPSNNKNRFLGLLSNV
NRNSTIENTRRHIGKGVHLYYVGGEVYAECLSDSSIFVQSRNCNYHHGFHPTTVCKIPSGCSLKIFN
NQEFAQLLAQSVNHGFETVYELTKMCTIRMSFVKGWGAEYHRQDVTSTPCWIEIHLHGPLQWLDK
VLTQMGSPHNPISSVS

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

76.89

Interspecies Antigen Sequence

Mouse (99)

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — SMAD1

Entrez GeneID	4086
GeneBank Accession#	BC001878
Protein Accession#	AAH01878.1
Gene Name	SMAD1
Gene Alias	BSP1, JV4-1, JV41, MADH1, MADR1
Gene Description	SMAD family member 1
Omim ID	601595
Gene Ontology	Hyperlink

Gene Summary	The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq]
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Other Designations

MAD, mothers against decapentaplegic homolog 1|Mad-related protein 1|SMAD, mothers against
t DPP homolog 1|Sma- and Mad-related protein 1|TGF-beta signaling protein 1|mothers against
DPP homolog 1|transforming growth factor-beta signaling protein 1

Publication Reference

- [Simultaneous imaging and restoration of cell function using cell permeable peptide probe.](#)

Suh JS, Lee JY, Lee G, Chung CP, Park YJ.

Biomaterials 2014 Aug; 35(24):6287.

Application: WB, Recombinant protein

- [Identification of Substrates of SMURF1 Ubiquitin Ligase Activity Utilizing Protein Microarrays.](#)

Andrews PS, Schneider S, Yang E, Michaels M, Chen H, Tang J, Emkey R.

Assay and Drug Development Technologies Assay and Drug Development Technologies Assay and Drug Dev 2010 Aug;
8(4):471.

Application: Array, Recombinant proteins

Pathway

- [TGF-beta signaling pathway](#)

Disease

- [Cleft Lip](#)
- [Cleft Palate](#)
- [Diabetes Mellitus](#)

- [Diabetic Nephropathies](#)
- [Genetic Predisposition to Disease](#)
- [Head and Neck Neoplasms](#)
- [Hemochromatosis](#)
- [Hypertension](#)
- [Kidney Failure](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Obesity](#)
- [Ovarian Failure](#)
- [Polycystic Ovary Syndrome](#)
- [Puberty](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)