

## Product datasheet for **TP300299L**

### SMAD1 (NM\_001003688) Human Recombinant Protein

#### Product data:

|                       |   |
|-----------------------|---|
| Product Type:         | Recombinant Proteins  |
| Description:          | Recombinant protein of human SMAD family member 1 (SMAD1), transcript variant 2, 1 mg |
| Species:              | Human   |
| Expression Host:      | HEK293T   |
| Expression cDNA       | >RC200299 protein sequence  |
| Clone or AA Sequence: | Red=Cloning site Green=Tags(s)  |

MNVTSLFSFTSPAVKRLLGWKQGDEEEKWAEKAVDALVKLKKKKGAMEELEKALSCPGQPSNCVTIPRS  
LDGRLQVSHRKGLPHVIYCRVWRWPDLSHHEKPLECCEFPFGSKQKEVCINPYHYKRVESVLPVPLV  
PRHSEYNPQHSLLAQFRNLGQNEPHMPLNATFPDSFQQPNSHPPHSPNSSYPNSPGSSSSTYPHSPTSS  
DPGSPFQMPADTPPPAYLPPEDPMTQDGSQPMDTNMMAPPLPSEINRGDVQAVAYEEPKHWCSIVYYELN  
NRVGEAFHASSTSVLVDGFTDPSNNKNRFLGLLSNVNRNSTIENTRRRHIGKGVHLYYVGGEVYAECLSD  
SSIFVQSRNCNYHHGFHPTTVCKIPSGCSLKIFNNQEFQAQLAQSVNHGFETVYELTKMCTIRMSFVKGW  
GAEYHRQDVTSTPCWIEIHLHGPLQWLDKVLTKMGSPHNPISSVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                |  |
|----------------|--|
| Tag:           | C-Myc/DDK  |
| Predicted MW:  | 52.1 kDa   |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method   |
| Purity:        | > 80% as determined by SDS-PAGE and Coomassie blue staining  |
| Buffer:        | 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol   |
| Preparation:   | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                     |
| Note:          | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process. |
| Storage:       | Store at -80°C.  |
| Stability:     | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.        |
| RefSeq:        | <u><a href="#">NP_001003688</a></u>  |



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Locus ID: 4086

UniProt ID: [Q15797](#)

RefSeq Size: 2880

Cytogenetics: 4q31.21

RefSeq ORF: 1395

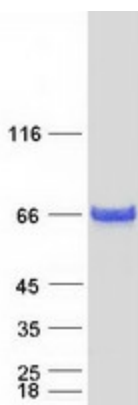
Synonyms: BSP-1; BSP1; JV4-1; JV41; MADH1; MADR1

**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, Jul 2008]

**Protein Families:** Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - TGFb/BMP signaling pathway, Transcription Factors

**Protein Pathways:** TGF-beta signaling pathway

### Product images:



Coomassie blue staining of purified SMAD1 protein (Cat# [TP300299]). The protein was produced from HEK293T cells transfected with SMAD1 cDNA clone (Cat# [RC200299]) using MegaTran 2.0 (Cat# [TT210002]).