# Recombinant Full Length Human SMAD1 Protein, N-His-tagged

**Cat. No.** SMAD1-106HFL **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Full Length Human SMAD1 Protein, fused to His-tag at N-terminus, was expressed in E. coli. |
| **Species** | Human |
| **Source** | E.coli |
| **Description** | 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. |
| **Form** | 25mM Tris, pH8.0, 150 mM NaCl, 10% glycerol, 1% Sarkosyl. |
| **Molecular Mass** | 52.1 kDa |

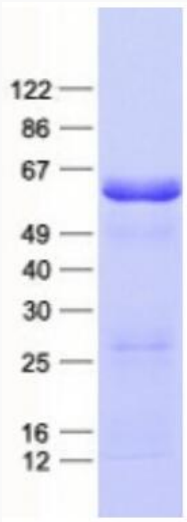
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| **AA Sequence** | A DNA sequence encoding human full-length SMAD1. |
| **Purity** | > 80% as determined by SDS-PAGE and Coomassie blue staining. |
| **Stability** | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| **Storage** | Store at -80 centigrade. |
| **Concentration** | >50 ug/mL as determined by microplate BCA method. |
| **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 |
| **Full Length** | Full L. |

## GENE INFORMATION

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| **Gene Name** | SMAD1 SMAD family member 1 [ Homo sapiens (human) ] |
| **Official Symbol** | SMAD1 |
| **Synonyms** | BSP1; JV41; BSP-1; JV4-1; MADH1; MADR1 |
| **Gene ID** | 4086 |
| **mRNA Refseq** | NM_005900.3 |

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| **Protein Refseq** | NP_005891.1 |
| **MIM** | 601595 |
| **UniProt ID** | Q15797 |
| **SDS-PAGE** |  |



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