

# Active Recombinant Full Length Human SMAD4 Protein, C-Flag-tagged

**Cat. No.** SMAD4-288HFL    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant Full Length Human SMAD4 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.

### Species

Human

### Source

Mammalian Cells

### Description

This gene encodes a member of the Smad family of signal transduction proteins. Smad proteins are phosphorylated and activated by transmembrane serine-threonine receptor kinases in response to transforming growth factor (TGF)-beta signaling. The product of this gene forms homomeric complexes and heteromeric complexes with other activated Smad proteins, which then accumulate in the nucleus and regulate the transcription of target genes. This protein binds to DNA and recognizes an 8-bp palindromic sequence (GTCTAGAC) called the Smad-binding element (SBE). The protein acts as a tumor suppressor and inhibits epithelial cell proliferation. It may also have an inhibitory effect on tumors by reducing angiogenesis and increasing blood vessel hyperpermeability. The encoded protein is a crucial component of the bone morphogenetic protein signaling pathway. The Smad proteins are subject to complex regulation by post-translational modifications. Mutations or deletions in this gene have been shown to result in pancreatic cancer, juvenile polyposis syndrome, and hereditary hemorrhagic telangiectasia syndrome.

### Form

25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.

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 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Bio-activity</b>	Co-immunoprecipitation
<b>Molecular Mass</b>	60.3 kDa
<b>AA Sequence</b>	<p>MDNMSITNTPTSNDACLSIVHSLMCHRQGGSETFAKRAIESLVKKLKEKKDELDSLITAITTNGAHP SK CVTIQRTLDGRLQVAGRKGFPHVIYARLWRWPD LHKNELKHVKY CQYAFDLKCD SVCVNPYHYERVVSPG IDLSGLTLQSNAPSSMMVKDEYVHDFEGQ PSLSTEGHSIQTIQHPPSNRASTETYSTPALLAPSESNATS TANFPNIPVASTSQPAS ILGGSHSEGLLQIASGPQPGQQQNGFTGQPATYHHNSTTTWTGSRTAPYTPNL PH HQNGHLQHPPMPPHPGHYWPVHNELAFQPPISNHPAPEYWCSIAYFEMDVQVGE TFKVPSSCPIVTV DGYVDPSGGDRFCLGQLSNVHRTEAIERARLHIGKGVQLECKG EGDVWVRCLSDHAVFVQSYLDREAGR APGDAVHKIYPSAYIKVFDLRQCHRQMQ QQAATAQAAAAAQA AAVAGNIPGPGSVGGIAP AISLSAAAGI GVDDLRLRCILRMSFVKGWGPDYPRQSIKETPCWIEIHLHRALQLLDEVLHTMPIADP QPLDTRTRPLEQKLISEEDLAANDILDYKDDDDKV</p>
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining.
<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade.
<b>Concentration</b>	>50 ug/mL as determined by microplate BCA method.
<b>Preparation</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Protein Families</b>	Druggable Genome, Transcription Factors

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**Protein Pathways** Adherens junction, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway, Wnt signaling pathway

**Full Length** Full L.

## GENE INFORMATION

**Gene Name** SMAD4 SMAD family member 4 [ Homo sapiens (human) ]

**Official Symbol** SMAD4

**Synonyms** JIP; DPC4; MADH4; MYHRS

**Gene ID** 4089

**mRNA Refseq** NM\_005359.6

**Protein Refseq** NP\_005350.1

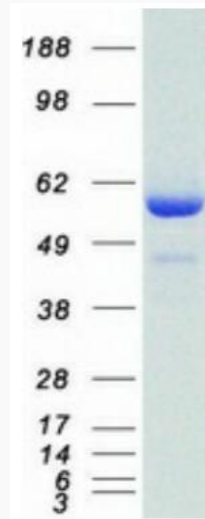
**MIM** 600993

**UniProt ID** Q13485

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Coomassie blue staining of purified SMAD4 protein.

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