

## Recombinant Human SMAD4 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. SMAD4-1778H Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

SMAD4 MS Standard C13 and N15-labeled recombinant protein (NP\_005350) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

#### Species

Human

#### Source

HEK293

#### 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.

#### Molecular Mass

60.3 kDa

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**AA Sequence**

MDNMSITNTPTSNDACLSIVHSLMCHRQGGSETFAKRAIESLVKKLKEKKDELDSLITAITTNGAHPKCVTIQRTLQVAGRKGFPHVIYARLWRWPDLHKNELKHVKYCQYAFDLKCDSVCVNPYHYERVVSPGIDLSGLTLQSNAPSSMMVKDEYVHDFEGQPSLSTEGHSIQTIQHPPSNRASTETYSTPALLAPSESNATSTANFPNIPVASTSQPASILGGSHSEGLLQIASGPQPGQQNGFTGQPATYHHNSTTTWTGSRTAPYTPNLPHHQNGHLQHHPMPHPGHYWPVHNELAFQPPISNHPAPEYWCSIAYFEMDVQVGETFKVPSSCPIVTDGYVDPSSGGDRFCLGQLSNVHRTEAIERARLHIGKGVQLECKGEGDVWVRCLSDHAVFVQSYLDREAGRAPGDAVHKIYPSAYIKVFDLRQCHRQMQQQAATAQAAAAAQAQAAVAGNIPGPGSVGGIAPAISSAAAGIGVDDLRLRCILRMSFVKGWGPDYPRQSIKETPCWIEIHLHRALQLLDEVLHTMPIADPQLDTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Stability** Stable for 3 months from receipt of products under proper storage and handling conditions.

**Storage** Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

**Concentration** 50 µg/mL as determined by BCA

**Storage Buffer** 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

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

**Official Symbol** [SMAD4](#)

**Synonyms** SMAD4; SMAD family member 4; MAD, mothers against decapentaplegic homolog 4 (Drosophila), MADH4, SMAD, mothers against DPP homolog 4 (Drosophila); mothers

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against decapentaplegic homolog 4; DPC4; MAD homolog 4; SMAD, mothers against DPP homolog 4; deleted in pancreatic carcinoma locus 4; deletion target in pancreatic carcinoma 4; mothers against decapentaplegic, Drosophila, homolog of, 4; JIP; MADH4; MYHRS;

**Gene ID** 4089

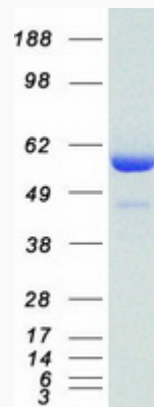
**mRNA Refseq** NM\_005359

**Protein Refseq** NP\_005350

**MIM** 600993

**UniProt ID** Q13485

**SDS-PAGE**



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