

## Recombinant Full length Human SMAD4 Protein, R361H mutant, His tagged

Cat. No. SMAD4-12HML Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Recombinant Full length Human SMAD4 Protein, R361H mutant with His tag was expressed in HEK293.

#### Species

Human

#### Source

HEK293

#### Conjugation/Label

1-552aa, R361H

#### 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.

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**AASequence**

MDNMSITNTPTSNDACLSIVHSLMCHRQGGSETFAKRAIESLVKKLKEKKDELDSLITAITTNGAHPKCVTIQRTLDGRLQVAGRKGFPVHVIYARLWRWPDHLKNEKHKVVKYCQYAFDLKCDSVCVNPYHYERVVSPGIDLSGLTLQSNAPSSMMVKDEYVHDFEGQPSLSTEGHSIQTIQHPPSNRASTETYSTPALLAPSESNATSTANFPNIPVASTSQPASILGGSHSEGLLQIASGPQPGQQQNGFTGQPATYHHNSTTTWTGSRTAPYTPNLPHHQNGHLQHPPMPPHPGHYWPVHNELAFQPPISNHPAPEYWCSIAYFEMDVQVGETFKVPSSCPIVTDGYVDPSSGGDFCLGQLSNVHRTEAIERARLHIGKGVQLECKGEGDVWVRCLSDHAVFVQSYLDREAGRAPGDAVHKIYPSAYIKVFDLRQCHRQMQQQAATAQAAAAAQAQAAVAGNIPGPGSVGGIAPAISSAAAGIGVDDLRLRCILRMSFVKGWGPDYPRQSIKETPCWIEIHLHRALQLLDEVLHTMPIADPQLDDDDDKHHHHHHHHH

**Molecular Mass** 62 kDa

**Endotoxin** < 1 EU/μg by LAL.

**Purity** >70% by SDS-PAGE

**Storage** Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Storage Buffer** Sterile PBS, pH7.4

**Concentration** 0.18 mg/mL by BCA

## GENE INFORMATION

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

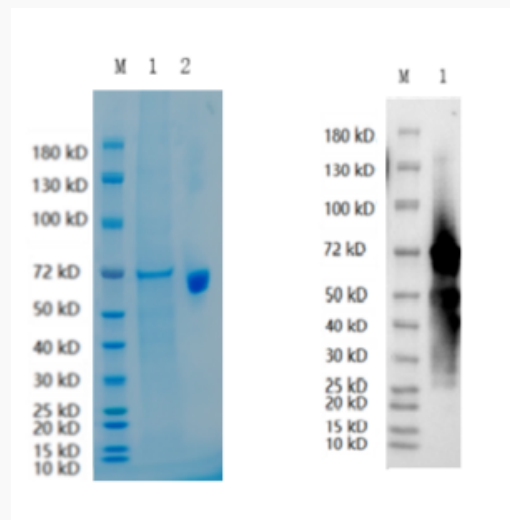
**Official Symbol** SMAD4 SMAD family member 4 [ Homo sapiens (human) ]

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<b>Synonyms</b>	SMAD4; SMAD family member 4; JIP; DPC4; MADH4; MYHRS; mothers against decapentaplegic homolog 4; 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
<b>Gene ID</b>	4089
<b>mRNA Refseq</b>	NM_005359
<b>Protein Refseq</b>	NP_005350
<b>MIM</b>	600993
<b>UniProt ID</b>	Q13485

**SDS-PAGE and WB**


Reducing 4%-20% SDS-PAGE (CBB stained) and WB (Anti-His Mouse Monoclonal antibody) analysis profiles of purified SMAD4-Mutant R361H 1. SMAD4-Mutant R361H: 1  $\mu$ g 2. BSA: 1  $\mu$ g

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