

Product datasheet for TP301828L

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

SMAD4 (NM_005359) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human SMAD family member 4 (SMAD4), 1 mg

Species: Human Expression Host: HEK293T

Expression cDNA Clone >RC201828 representing NM_005359 **or AA Sequence:** Red=Cloning site Green=Tags(s)

MDNMSITNTPTSNDACLSIVHSLMCHRQGGESETFAKRAIESLVKKLKEKKDELDSLITAITTNGAHPSK CVTIQRTLDGRLQVAGRKGFPHVIYARLWRWPDLHKNELKHVKYCQYAFDLKCDSVCVNPYHYERVVSPG IDLSGLTLQSNAPSSMMVKDEYVHDFEGQPSLSTEGHSIQTIQHPPSNRASTETYSTPALLAPSESNATS TANFPNIPVASTSQPASILGGSHSEGLLQIASGPQPGQQQNGFTGQPATYHHNSTTTWTGSRTAPYTPNL PHHQNGHLQHHPPMPPHPGHYWPVHNELAFQPPISNHPAPEYWCSIAYFEMDVQVGETFKVPSSCPIVTV DGYVDPSGGDRFCLGQLSNVHRTEAIERARLHIGKGVQLECKGEGDVWVRCLSDHAVFVQSYYLDREAGR APGDAVHKIYPSAYIKVFDLRQCHRQMQQQAATAQAAAAAQAAAVAGNIPGPGSVGGIAPAISLSAAAGI

GVDDLRRLCILRMSFVKGWGPDYPRQSIKETPCWIEIHLHRALQLLDEVLHTMPIADPQPLD

TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Tag: C-Myc/DDK
Predicted MW: 60.3 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

Bioactivity: Co-immunoprecipitation (PMID: <u>26772959</u>)

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.





SMAD4 (NM_005359) Human Recombinant Protein - TP301828L

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: NP 005350

Locus ID: 4089

UniProt ID: <u>Q13485</u>, <u>A0A024R274</u>

RefSeq Size: 3220 Cytogenetics: 18q21.2 RefSeq ORF: 1656

Synonyms: DPC4; JIP; MADH4; MYHRS

Summary: 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 increasng 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

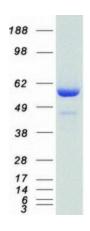
telangiectasia syndrome. [provided by RefSeq, Aug 2017]

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Adherens junction, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Pancreatic cancer,

Pathways in cancer, TGF-beta signaling pathway, Wnt signaling pathway

Product images:



Coomassie blue staining of purified SMAD4 protein (Cat# [TP301828]). The protein was produced from HEK293T cells transfected with SMAD4 cDNA clone (Cat# [RC201828]) using MegaTran 2.0 (Cat# [TT210002]).