

Recombinant Human SMAD Family Member 2, His-tagged

Cat. No. SMAD2-392H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant SMAD2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques, 54.4 kDa (487aa).

Species Human

Source Insect Cells

ProteinLength 1-467 a.a.

Description SMAD2(Mothers against decapentaplegic homolog 2) belongs to the SMAD family of proteins that mediate signal transduction by the TGF-beta/activin/BMP-2/4 cytokine superfamily from receptor Ser/Thr protein kinases at the cell surface to the nucleus. Phosphorylated Smad2 is then able to form a complex with Smad4 or SARA. These complexes accumulate in the cell nucleus, where they are directly participating in the regulation of gene expression.

Sequences of amino acids

MGSSHHHHHH SSGLVPRGSH MSSILPFTPP VVKRLLGWKK SAGGSGGAGG
 GEQNGQEEKW CEKAVKSLVK KLKKTGRLDE LEKAITTQNC NTKCVTIPST
 CSEIWGLSTP NTIDQWDTTG LYSFSEQTRS LDGRLQVSHR KGLPHVIYCR
 LWRWPDLSH HELKAIENCE YAFNLKKDEV CVNPYHYQRV ETPVLPPVLV
 PRHTEILTEL PPLDDYTHSI PENTNFPAGI EPQSNIYIPET PPPGYISEDG
 ETSDQQLNQS MDTGSPAELS PTTLSNVNHS LDLQPVTYSE PAFWCSIAYY
 ELNQRVGETF HASQPSLTV D GFTDPSNSER FCLGLLSNVN RNATVEMTRR
 HIGRGVRLYY IGGEVFAECL SDSAIFVQSP NCNQRYGWHP ATVCKIPPGC

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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

NLKIFNNQEF AALLAQSVNQ GFEAVYQLTR MCTIRMSFVK GWGAEYRRQT
VTSTPCWIEL HLNGLPLQWLD KVLTMGSPS VRCSSMS

Formulation Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 100 mM NaCl

Purity > 95% by SDS - PAGE

Concentration 0.5 mg/ml (determined by Bradford assay)

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [SMAD family member 2 \[Homo sapiens \]](#)

Synonyms SMAD2; SMAD family member 2; JV18; MADH2; MADR2; JV18-1; hMAD-2; hSMAD2; MGC22139; MGC34440; Sma- and Mad-related protein 2; Mad protein homolog; Mad-related protein 2; mother against DPP homolog 2; SMAD, mothers against DPP homolog 2; MAD, mothers against decapentaplegic homolog 2

Gene ID [4087](#)

mRNA Refseq [NM_001003652](#)

Protein Refseq [NP_001003652](#)

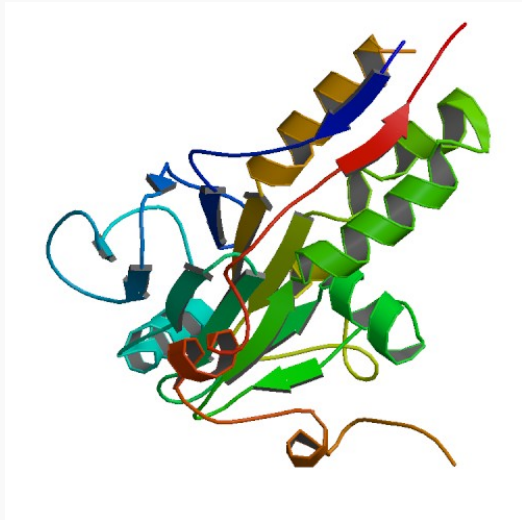
MIM [601366](#)

UniProt ID [Q15796](#)

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|------------------------------------|--|
| Chromosome Location | 18q21.1 |
| Pathway | Adherens junction; Cell cycle; Colorectal cancer; Pancreatic cancer; TGF-beta signaling pathway; Wnt signaling pathway; Signaling by TGF beta |
| Function | R-SMAD binding; co-SMAD binding; double-stranded DNA binding; promoter binding; transcription activator activity; transcription factor activity; transcription factor binding; transforming growth factor beta receptor, pathway-specific cytoplasmic mediator activity; type I transforming growth factor beta receptor binding; ubiquitin protein ligase binding |
| PDB rendering based on 1dev |  |

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