

Recombinant Human SMAD Family Member 3, His-tagged

Cat. No. SMAD3-6915H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant SMAD3 protein was expressed in E. coli and purified by using conventional chromatography techniques. MW: 50.2 kDa.
Species	Human
Source	E.coli
ProteinLength	1-425aa
Description	SMAD3, also known as mothers against decapentaplegic homolog 3, 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. Small molecule inhibitors of Smad3 may have tremendous clinical potential in the treatment of pathological fibrotic diseases.
Form	Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl and 1 mM DTT.
Molecular Mass	50.2 kDa (445aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MSSILPFTPP IVKRLLGWKK GEQNGQEEKW CEKAVKSLVK KLKKTGQLDE LEKAITQNV NTKCITIPRS LDGRLQVSHR KGLPHVIYCR LWRWPDLSH HELRAMELCE FAFNMKKDEV CVNPYHYQRV ETPVLPPVLV PRHTEIPAEF PPLDDYSHSI PENTNFPAGI EPQSNIPETP PPGYLSEGE TSDHQMNHSM DAGSPNLSPN PMSPAHHNLD LQPVTYCEPA

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FWCSISYYEL NQRVGETFHA SQPSMTVDGF TDPSNSERFC LGLLSNVNRN
 AAVELTRRHI GRGVRLYYIG GEVFAECLSD SAIFVQSPNC NQRYGWHPAT
 VCKIPPGCNL KIFNNQEFAA LLAQSVNQQF EAVYQLTRMC TIRMSFVKGW
 GAEYRRQTVT STPCWIELHL NGPLQWLDKV LTQMGSPSIR CSSVS

Purity >90% by SDS-PAGE

Applications SDS-PAGE

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.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [SMAD3 SMAD family member 3 \[Homo sapiens \]](#)

Official Symbol SMAD3

Synonyms SMAD3; SMAD family member 3; MAD, mothers against decapentaplegic homolog 3 (Drosophila) , MADH3, SMAD, mothers against DPP homolog 3 (Drosophila); mothers against decapentaplegic homolog 3; HsT17436; JV15 2; mad3; hMAD-3; hSMAD3; MAD homolog 3; mad homolog JV15-2; mad protein homolog; mothers against DPP homolog 3; SMA- and MAD-related protein 3; SMAD, mothers against DPP homolog 3; MAD, mothers against decapentaplegic homolog 3; LDS1C; MADH3; JV15-2; HSPC193; MGC60396; DKFZp586N0721; DKFZp686J10186;

Gene ID [4088](#)

mRNA Refseq [NM_001145102](#)

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Protein Refseq	NP_001138574
MIM	603109
UniProt ID	P84022
Chromosome Location	15q21-q22
Pathway	Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Adipogenesis, organism-specific biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; Cell cycle, organism-specific biosystem; Cell cycle, organism-specific biosystem;
Function	R-SMAD binding; RNA polymerase II activating transcription factor binding; beta-catenin binding; chromatin DNA binding; co-SMAD binding; collagen binding; core promoter proximal region sequence-specific DNA binding; double-stranded DNA binding; metal ion binding; phosphatase binding; protein binding; contributes_to protein binding transcription factor activity; protein homodimerization activity; protein kinase binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity; contributes_to sequence-specific DNA binding transcription factor activity; transcription factor binding; transcription regulatory region DNA binding; transforming growth factor beta receptor binding; transforming growth factor beta receptor, pathway-specific cytoplasmic mediator activity; ubiquitin binding; ubiquitin protein ligase binding; zinc ion binding;

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