Immunoway
Best Tools for immunology Research

Smad3 protein

Catalog No :	YD0093
Reactivity :	Human
Applications :	WB;SDS-PAGE
Gene Name :	SMAD3 MADH3
Protein Name :	Smad3 protein
Sequence :	Amino acid: 241-425, with his-MBP tag.
Human Gene Id :	4088
Human Swiss Prot No :	P84022
Mouse Swiss Prot No :	Q8BUN5
Formulation :	Liquid in PBS
Concentration :	SDS-PAGE >90%
Storage Stability :	-20°C/6 month,-80°C for long storage
Background :	disease:Defects in SMAD3 may be a cause of colorectal cancer (CRC) [MIM:114500].,domain:The MH2 domain is sufficient to carry protein nuclear export.,function:Transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinase. SMAD3 is a receptor-regulated SMAD (R-SMAD).,PTM:Phosphorylated on serine by TGF-beta and activin type 1 receptor kinases.,similarity:Belongs to the dwarfin/SMAD family.,similarity:Contains 1 MH1 (MAD homology 1) domain.,similarity:Contains 1 MH2 (MAD homology 2) domain.,subcellular location:In the cytoplasm in the absence of ligand. Migration to the nucleus when complexed with Smad4.,subunit:Interacts with HGS. Interacts with NEDD4L in response to TGF-beta. Interacts with TTRAP (By similarity). Interacts with SARA (SMAD anchor for receptor activation); form trimers with another SMAD3 and the co-SMAD SMAD4. Interacts with JUN/FOS, vitamin D receptor, homeobox protein TGIF and TGIF2, PEBP2-alpha C subunit, CREB-binding protein (CBP), p300, SKI, SNON, ATF2, SMURF2, AIP1, DACH1 and TGFB1I1. Part of a complex consisting of AIP1, ACVR2A, ACVR1B and SMAD3. Found in a complex with SMAD2 and TRIM33

upon addition of TGF-beta. Interacts with SMAD2 and TRIM33. Found in a complex with SMAD3, Ran and XPO4. Interacts with XPO4. Interacts with LBXCOR1 and CORL2.,

Function :

negative regulation of transcription from RNA polymerase II promoter, skeletal system development, ossification,regulation of cell growth, osteoblast differentiation, response to hypoxia, formation of primary germ layer, mesoderm formation, cell activation, regulation of cytokine production, positive regulation of cytokine production, release of cytochrome c from mitochondria, regulation of cell-matrix adhesion, positive regulation of cell-matrix adhesion,osteoblast development, transcription, regulation of transcription, DNA-dependent, regulation of transcription from RNA polymerase II promoter, RNA processing, protein complex assembly, apoptosis, induction of apoptosis, activation of caspase activity, immune response, mitochondrion organization, cell cycle, cell cycle arrest, cell surface receptor linked signal transduction, enzyme linked receptor protein signaling pathway, transmembra

Subcellular Location :

Cytoplasm . Nucleus . Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (PubMed:15799969, PubMed:21145499). Through the action of the phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15601644). MAPK-mediated phosphorylation appears to have no effect on nuclear import (PubMed:19218245). PDPK1 prevents its nuclear translocation in response to TGF-beta (PubMed:17327236). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm of the inner cell mass at the blastocyst stage (By similarity)

Products Images

1: F234洗脱液1
分子量：66KD
缓冲液：8mol尿素
（含咪唑洗脱液和甘油）