Smad3 (Phospho Ser425) (1D9) Mouse mAb

CatalogNo: YP1885

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Rat

Applications
- IHC,IF

MW
- 52kD (Observed)

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

IHC 1:50-300
IF 1:50-200

Basic Information

Clonality	Monoclonal
Clone Number	1D9

Immunogen Information

Immunogen	Synthetic Peptide of Phospho-Smad3(S425)
Specificity	The antibody detects endogenous Phospho-Smad3(S425) protein

Target Information

Gene name SMAD3 MADH3

Protein Name Mothers against decapentaplegic homolog 3 (MAD homolog 3) (Mad3) (Mothers against DPP homolog 3) (hMAD-3) (JV15-2) (SMAD family member 3) (SMAD 3) (Smad3) (hSMAD3)

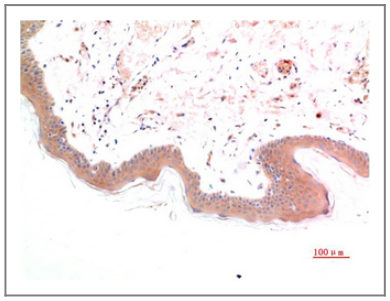
Organism	Gene ID	UniProt ID
Human	4088;	P84022;
Mouse	17127;	Q8BUN5;
Rat	25631;	P84025;

Cellular Localization 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) . .

Tissue specificity Brain ,Colon carcinoma ,Esophagus tumor ,Pancreas ,Placenta ,Spleen ,Umbilical cord blood

Function 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. ,

Validation Data



Immunohistochemical analysis of paraffin-embedded Human Skin Tissue using Phospho-Smad3 (S425) Mouse mAb diluted at 1:200

Contact information

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Please scan the QR code to access additional product information:
Smad3 (Phospho Ser425) (1D9) Mouse mAb

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