Smad2 (Phospho Ser250) (PT0058R) PT™ Rabbit mAb

CatalogNo: YM8030 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat,

Applications
- WB,IHC,IF,IP,ELISA

MW
- 52kDa (Calculated)

58kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

IHC 1:100-1:500
WB 1:1000-1:5000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200,

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT0058R

Immunogen Information

Specificity	This antibody detects endogenous levels of Smad2 only when phosphorylated at Ser250.This antibody does not recognize phosphorylated at other sites.

Target Information

Gene name SMAD2

Protein Name Mothers against decapentaplegic homolog 2

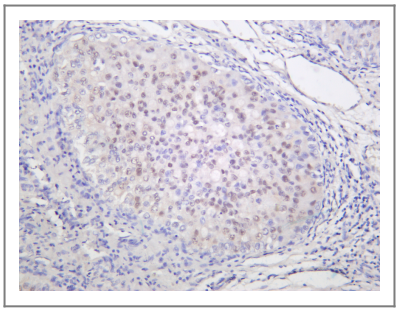
Organism	Gene ID	UniProt ID
Human	4087;	Q15796;
Mouse	17126;	Q62432;
Rat	29357;	O70436;

Cellular Localization Cytoplasm, Nuclear

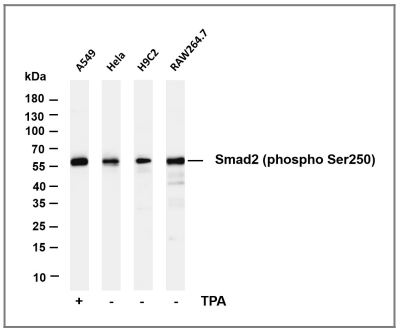
Tissue specificity Expressed at high levels in skeletal muscle, endothelial cells, heart and placenta.

Function Disease:Defects in SMAD2 are found in sporadic cases of colorectal carcinoma.,Function:Transcriptional modulator activated by TGF-beta and activin type 1 receptor kinase. SMAD2 is a receptor-regulated SMAD (R-SMAD). May act as a tumor suppressor in colorectal carcinoma.,PTM:Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo.,PTM:In response to TGF-beta, ubiquitinated by NEDD4L; which promotes its degradation.,PTM:Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, phosphorylated on Ser-240 by CaMK2. Phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin.,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:Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4.,subunit:Found in a complex with SMAD3 and TRIM33 upon addition of TGF-beta. Interacts with SMAD3 and TRIM33. Interacts with SARA (SMAD anchor for receptor activation); may form trimers with the SMAD4 co-SMAD. Interacts with FOXH1, homeobox protein TGIF, PEBP2-alpha subunit, CREB-binding protein (CBP), EP300 and SKI. Interacts with SNON; when phosphorylated at Ser-465/467. Interacts (via PY-motif) with SMURF2. Interacts with AIP1 and HGS. Interacts with NEDD4L in response to TGF-beta (By similarity). Interacts with LBXCOR1 and CORL2.,tissue specificity:Expressed at high levels in skeletal muscle, heart and placenta.,

Validation Data



Human hepatocellular carcinoma was stained with anti-Smad2 (phospho Ser250) rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Smad2 (phospho Ser250) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A549 treated with TPA for 48 hours Lane 2: Hela Lane 3: H9C2 Lane 4: RAW264.7 Predicted band size: 58kDa Observed band size: 58kDa

Contact information

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Please scan the QR code to access additional product information: **Smad2 (Phospho Ser250) (PT0058R) PT™ Rabbit mAb**