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

CatalogNo: YM8030 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 52kD (Calculated)

58kD (Observed)

Isotype
- IgG, Kappa

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

Recommended Dilution Ratios

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

Basic Information

Clonality	Monoclonal
Clone Number	PT0058R

Immunogen Information

Immunogen	The specific immunogen used to produce this antibody is proprietary 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

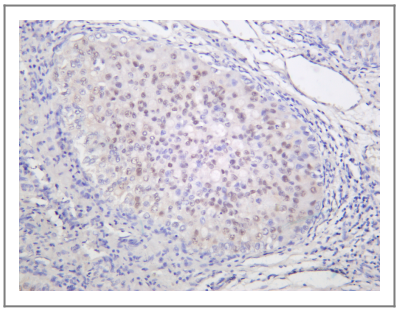
Organism	Gene ID	UniProt ID
Human	4087;	Q15796;
Mouse	17126;	Q62432;
Rat	29357;	O70436;

Cellular Localization Cytoplasm , Nuclear

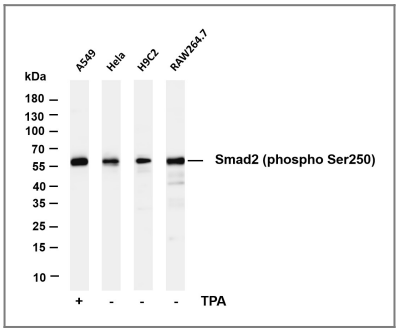
Tissue specificity Expressed at high levels in skeletal muscle , endothelial cells , heart and placenta.

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. ,

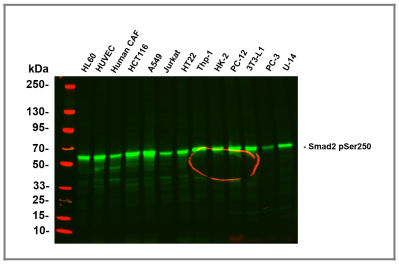
Validation Data



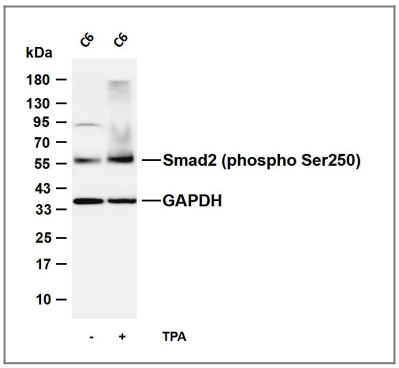
Human hepatocellular carcinoma was stained with anti-Smad2 (phospho Ser250) rabbit antibody



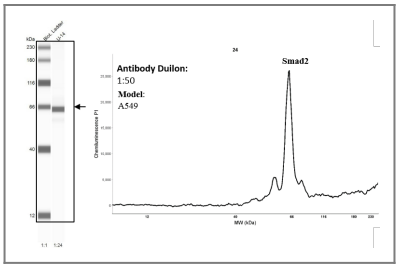
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Smad2 (phospho Ser250) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: A549 treated with TPA for 48 hours Lane 2: Hela Lane 3: H9C2 Lane 4: RAW264.7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



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃ over night with a 1:2500 dilution . The Dilight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast cells Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 52kDa Observed band size: 58kDa



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Smad2 (phospho Ser250) (PT0058R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: C6 Lane 2: C6 was treated with TPA (200nM) for 30 minutes Predicted band size: 58kDa Observed band size: 58kDa



Simple Western analysis of lysates using primary Rabbit mAb. The virtual lane view (left) shows a single target band (as indicated) at 1:50 dilutions of primary antibody. The corresponding electropherogram view (right) plots chemiluminescence by molecular weight along the capillary at 1:50 of primary antibody. This experiment was performed under reducing conditions on the Jess Simple Westerninstrument from ProteinSimple, a BioTechne brand, using the 12-230 kDa separation module.

Contact information

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

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