

## 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

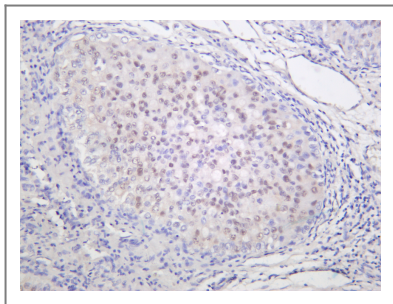
Organism	Gene ID	UniProt ID
Human	<a href="#">4087</a> ;	<a href="#">Q15796</a> ;
Mouse	<a href="#">17126</a> ;	<a href="#">Q62432</a> ;
Rat	<a href="#">29357</a> ;	<a href="#">O70436</a> ;

**Cellular Localization** Cytoplasm, Nuclear

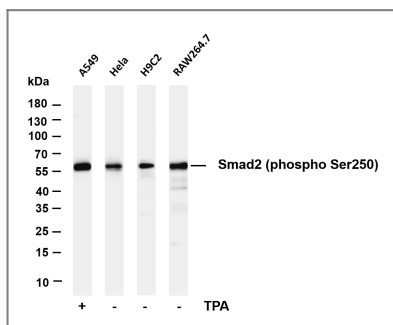
**Tissue specificity** Expressed at high levels in skeletal muscle, endothelial cells, heart and placenta.

**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

Orders: [order@immunoway.com](mailto:order@immunoway.com)  
 Support: [tech@immunoway.com](mailto:tech@immunoway.com)  
 Telephone: 877-594-3616 (Toll Free), 408-747-0185  
 Website: <http://www.immunoway.com>  
 Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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

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