# Smad3 (Phospho Ser423/425) (PT0913R) PT™ Rabbit mAb

CatalogNo: YM8682 Recombinant

## Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 48kD (Calculated)

52kD (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 1:200-1:1000**
**WB 1:2000-1:10000**
**IF 1:200-1:1000**
**ELISA 1:5000-1:20000**

## Basic Information

| | |
|---|---|
| **Clonality** | Monoclonal |
| **Clone Number** | PT0913R |

## Immunogen Information

| | |
|---|---|
| **Immunogen** | The specific immunogen used to produce this antibody is proprietary information. |

**Specificity** Phospho-Smad3 (S423/S425) Antibody detects endogenous levels of Smad3 protein only when phosphorylated at S423/425.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):CSSVs

## Target Information

**Gene name** SMAD3 MADH3

**Protein Name** Mothers against decapentaplegic homolog 3

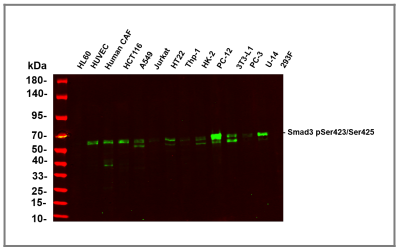
| Organism | Gene ID | UniProt ID |
|---|---|---|
| Human | 4088; | P84022; |
| Mouse | 17127; | Q8BUN5; |
| Rat | 25631; | P84025; |

**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) . .

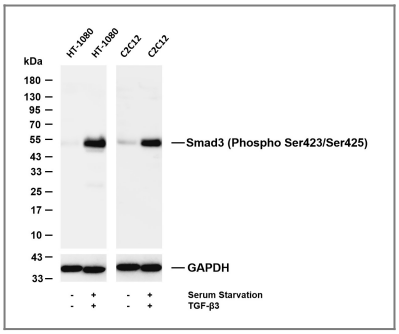
**Tissue specificity** Brain ,Colon carcinoma ,Esophagus tumor ,Pancreas ,Placenta ,Spleen ,Umbilical cord blood

**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. ,

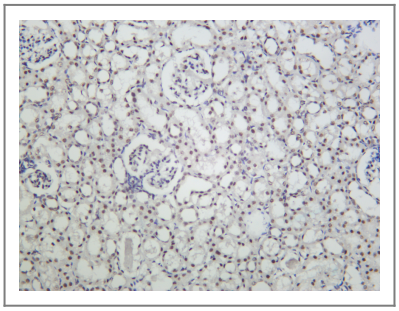
## Validation Data



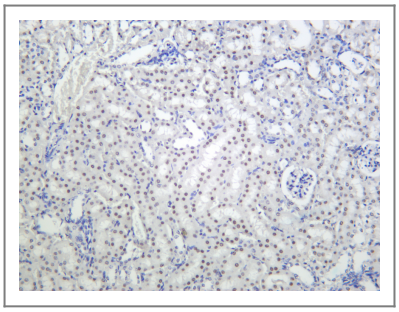

Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃ over night with a 1:5000 dilution . The Dilight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human 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 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: 52kDa




Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Smad3 (Phospho Ser423/Ser425) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HT-1080 Lane 2: HT-1080 serum was starved overnight and treated with TGF-β3 (10ng/ml) for 30 minutes Lane 3: C2C12 Lane 4: C2C12 serum was starved overnight and treated with TGF-β3 (10ng/ml) for 30 minutes Predicted band size: 48kDa Observed band size: 52kDa



Rat kidney was stained with anti-Smad3 (Phospho Ser423/Ser425) Rabbit antibody



Mouse kidney was stained with anti-Smad3 (Phospho Ser423/Ser425) Rabbit antibody

## Contact information

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Please scan the QR code to access additional product information:
**Smad3 (Phospho Ser423/425) (PT0913R) PT™ Rabbit mAb**

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