

## Smad2/3 Rabbit pAb

CatalogNo: YT4332

Orthogonal Validated 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat, Monkey, Pig

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 48kD (Observed)

#### Isotype

- IgG

### Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:100-1:300

ELISA 1:10000

IF 1:50-200

### 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.

### Basic Information

#### Clonality

Polyclonal

### Immunogen Information

#### Immunogen

The antiserum was produced against synthesized peptide derived from human Smad2/3. AA range: 1-50

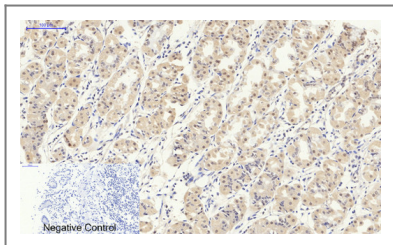
#### Specificity

Smad2/3 Polyclonal Antibody detects endogenous levels of Smad2/3 protein.

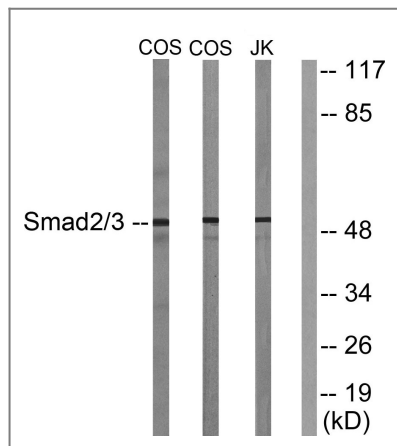
### Target Information

Gene name	SMAD2/SMAD3		
Protein Name	Mothers against decapentaplegic homolog 2/3		
	Organism	Gene ID	UniProt ID
	Human	<a href="#">4087</a> ; <a href="#">4088</a> ;	<a href="#">Q15796</a> ; <a href="#">P84022</a> ;
	Mouse	<a href="#">17126</a> ; <a href="#">17127</a> ;	
	Rat	<a href="#">29357</a> ; <a href="#">25631</a> ;	<a href="#">O70436</a> ; <a href="#">P84025</a> ;
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:9865696, PubMed:21145499). On dephosphorylation by phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm at the blastocyst and epiblast stages (By similarity). .		
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



Immunohistochemical analysis of paraffin-embedded Human-stomach tissue.  
 1, Smad2/3 Polyclonal Antibody was diluted at 1:200 (4°C, overnight).  
 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min).  
 3, Secondary antibody was diluted at 1:200 (room temperature, 30min).  
 Negative control was used by secondary antibody only.



Western blot analysis of lysates from COS7 and Jurkat cells, treated with UV 15', using Smad2/3 Antibody. The lane on the right is blocked with the synthesized peptide.

## Contact information

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Please scan the QR code to access additional product information:  
**Smad2/3 Rabbit pAb**

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