

## Anti-Smad2/3 Rabbit mAb

Purified Rabbit Recombinant Monoclonal Antibody

Catalog # R013762

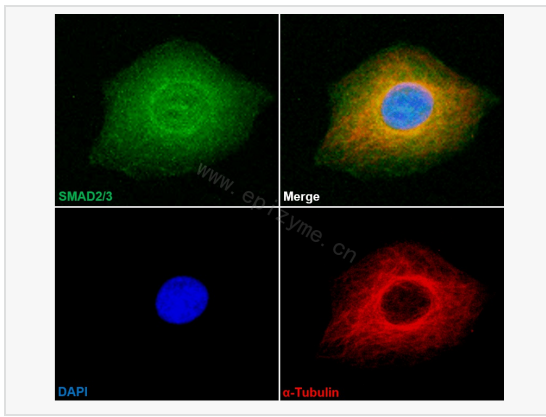
### Product Information

Application	WB, IHC-P, IF (Cell), ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:4,000; IHC-P 1:200; IF 1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	14L86C22
Isotype	IgG
Target / Specificity	Recombinant protein of human Smad2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped at 4°C. Upon delivery aliquot. Store at 4°C short term (1~2 weeks). Store at -20°C for 2 years. Avoid freeze / thaw cycles.
Precautions	Anti-Smad2/3 Rabbit mAb [14L86C22] is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

Other Names	SMAD3, MADH3, Mothers against decapentaplegic homolog 3, MAD homolog 3, Mad3, Mothers against DPP homolog 3, hMAD-3, JV15-2, SMAD family member 3, SMAD 3, Smad3, hSMAD3, JV18, MADH2, MADR2, JV18-1, hMAD-2, hSMAD2.
Calculated MW	Calculated MW: 52 kDa; Observed MW: 58-62 kDa
Primary Accession	P84022
Other Accession	Q15796
Gene ID	4087/4088
Background	Members of the Smad family of signal transduction molecules are components of a critical intracellular pathway that transmit TGF- $\beta$ signals from the cell surface into the nucleus. Three distinct classes of Smads have been defined: the receptor-regulated Smads (R-Smads), which include Smad1, 2, 3, 5, and 8; the common-mediator Smad (co-Smad), Smad4; and the antagonistic or inhibitory Smads (I-Smads), Smad6 and 7. Activated type I receptors associate with specific R-Smads and phosphorylate them on a conserved carboxy terminal SXSX motif. The phosphorylated R-Smad dissociates from the receptor and forms a heteromeric complex with the co-Smad (Smad4), allowing translocation of the complex to the nucleus. Once in the nucleus, Smads can target a variety of DNA binding proteins to regulate transcriptional responses.

### Validation Images



#### Immunofluorescence - Anti-Smad2/3 Rabbit mAb [14L86C22]

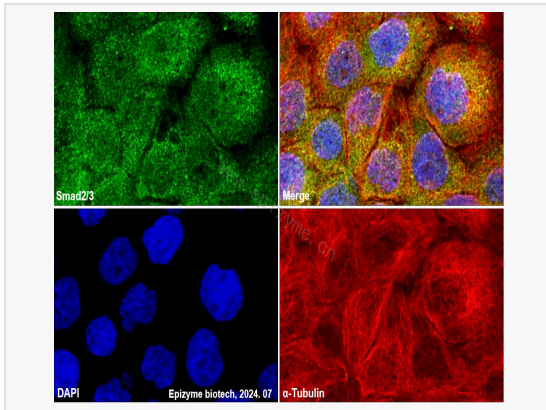
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R013762 at 1:100 dilution and  $\alpha$ -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



#### Immunofluorescence - Anti-Smad2/3 Rabbit mAb [14L86C22]

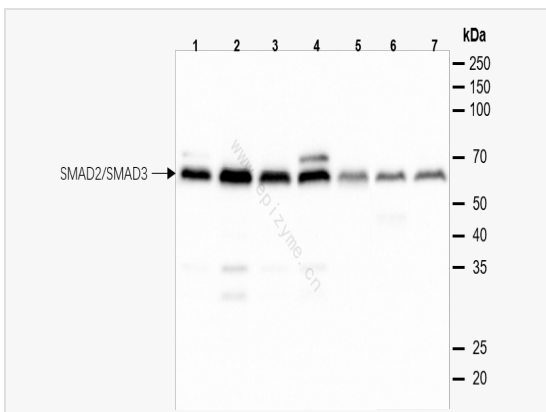
Sample: A431 cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R013762 at 1:100 dilution and  $\alpha$ -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



#### Western Blot - Anti-Smad2/3 Rabbit mAb [14L86C22]

All lanes: R013762 at 1:4,000 dilution

Lane 1: C2C12 (mouse myoblasts epithelial cell) whole cell lysates

Lane 2: Jurkat (human T lymphocytic leukemia cell) whole cell lysates

Lane 3: HCT116 (human colorectal carcinoma epithelial cell) whole cell lysates

Lane 4: RAW264.7 (mouse mononuclear macrophage leukemia epithelial cell)

Lane 5: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysates

Lane 6: Rat stomach whole tissue lysates

Lane 7: Balb/c mouse liver whole tissue lysates

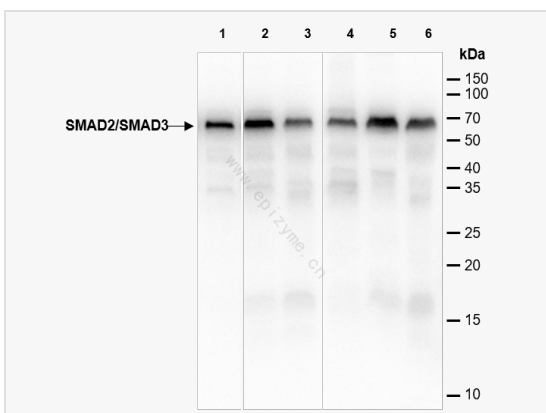
Lysates/proteins at 10  $\mu$ g per lane.

Secondary antibody: Goat Anti-Rabbit IgG(H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 52 kDa

Observed band size: 58 kDa, 62 kDa

Developed using the ECL technique (Cat. No. SQ201).



#### Western Blot - Anti-Smad2/3 Rabbit mAb [14L86C22]

All lanes: R013762 at 1:1,000 dilution

Lane 1: MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysates

Lane 2: T24 (human bladder cancer epithelial cell) whole cell lysates

Lane 3: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysates

Lane 4: SW620 (human colorectal carcinoma epithelial cell) whole cell lysates

Lane 5: Rat brain whole tissue lysates

Lane 6: Rat liver whole tissue lysates

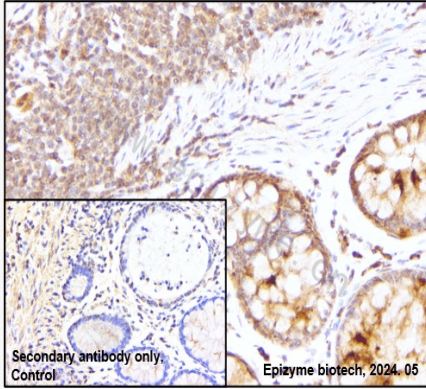
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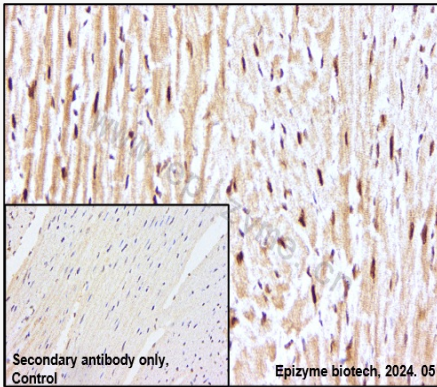
Predicted band size: 52 kDa

Observed band size: 58-62 kDa

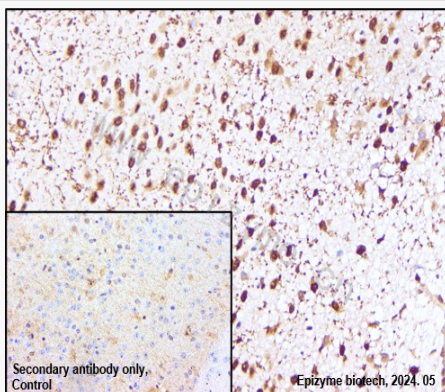
Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Smad2/3 Rabbit mAb [14L86C22]  
 Sample: Paraformaldehyde-fixed, paraffin embedded human colorectal carcinoma tissue  
 Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.  
 Primary antibody: R013762 at 1:200 dilution  
 Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution  
 DAB was used as the chromogen.  
 Counter stained with hematoxylin.  
 Positive/negative staining were presented.  
 Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Smad2/3 Rabbit mAb [14L86C22]  
 Sample: Paraformaldehyde-fixed, paraffin embedded mouse heart tissue  
 Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.  
 Primary antibody: R013762 at 1:200 dilution  
 Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution  
 DAB was used as the chromogen.  
 Counter stained with hematoxylin.  
 Positive/negative staining were presented.  
 Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Smad2/3 Rabbit mAb [14L86C22]  
 Sample: Paraformaldehyde-fixed, paraffin embedded mouse brain tissue  
 Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.  
 Primary antibody: R013762 at 1:200 dilution  
 Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution  
 DAB was used as the chromogen.  
 Counter stained with hematoxylin.  
 Positive/negative staining were presented.  
 Only the secondary antibody was used as the negative control.