Anti-Smad2/3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R013762

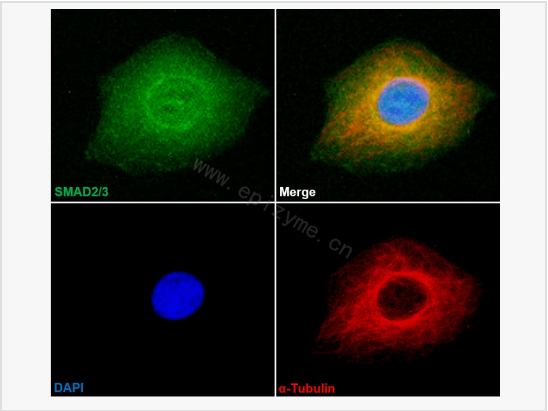
Product Information

Application	ELISA, IF (Cell)/ICC, WB, IHC-P/IF (Tissue-P)
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
Label	Unconjugated
Immunogen	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 on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Smad2/3 Rabbit mAb [14L86C22] is for research use only and not for use in diagnostic or therapeutic procedures.

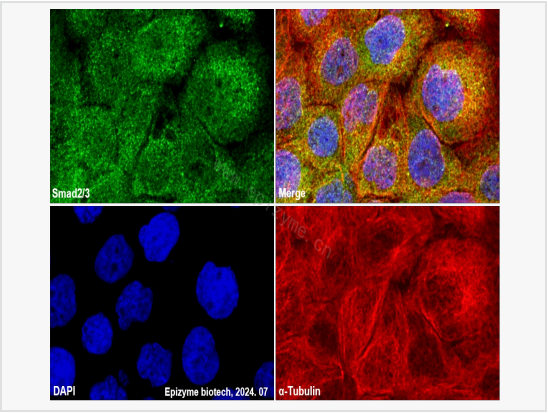
Protein Information

Synonyms	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
Uniprot ID	P84022, 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-β 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 SSXS 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 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R013762 at 1:100 dilution and α-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 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R013762 at 1:100 dilution and α-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)
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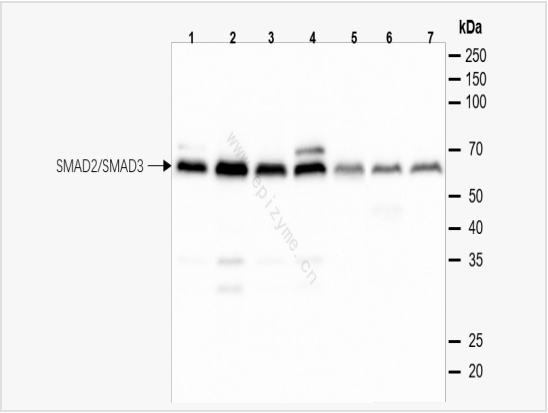
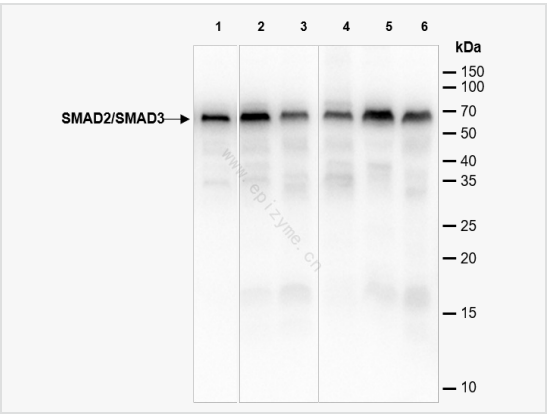


Western Blot - Anti-Smad2/3 Rabbit mAb [14L86C22]
All lanes: R013762 at 1:4,000 dilution
Lane 1: C2C12 (mouse myoblasts epithelial cell) whole cell lysates
Lane 2: Jurkat (human T lymphocytic leukemia cell) whole cell lysates
Lane 3: HCT116 (human colorectal carcinoma epithelial cell) whole cell lysates
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 µg 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
Lysates/proteins at 10 µg 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
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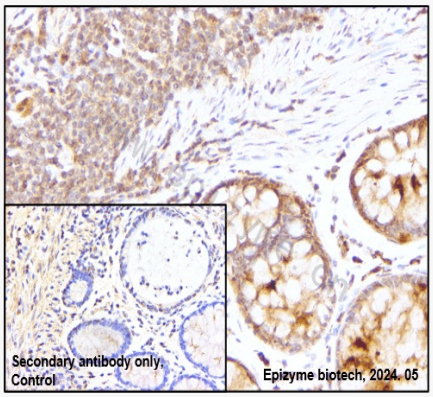
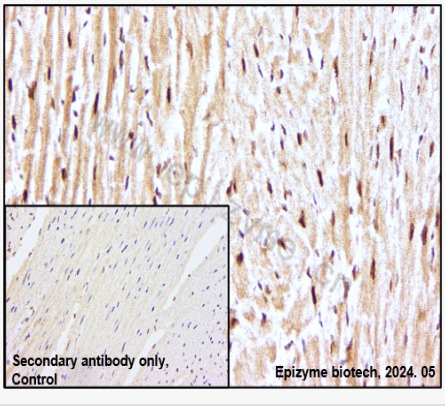
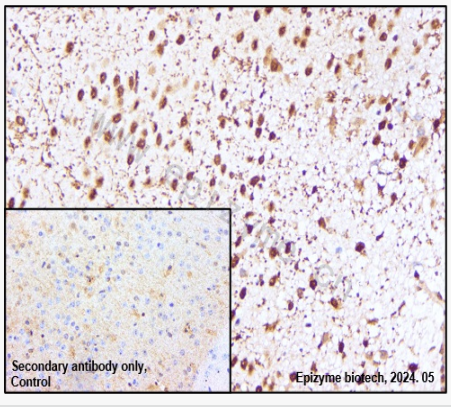


Immunohistochemistry - Anti-Smad2/3 Rabbit mAb [14L86C22]
Sample: Paraformaldehyde-fixed, paraffin embedded human colorectal carcinoma tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013762 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (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.