Anti-Smad2/3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R013762

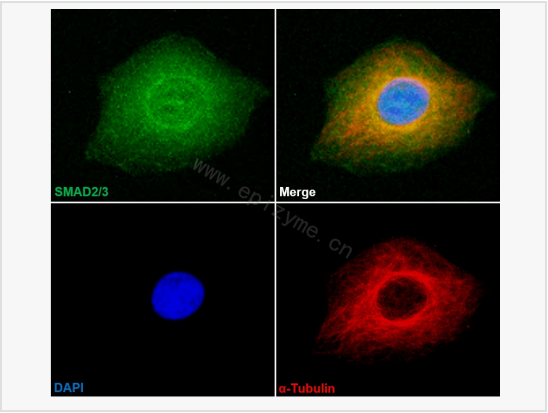
Product Information

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.

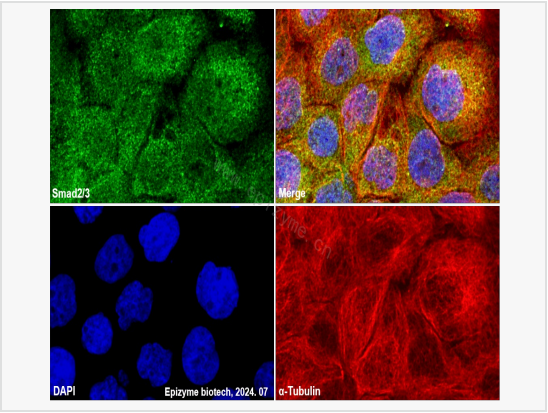
Protein Information

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
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-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 .

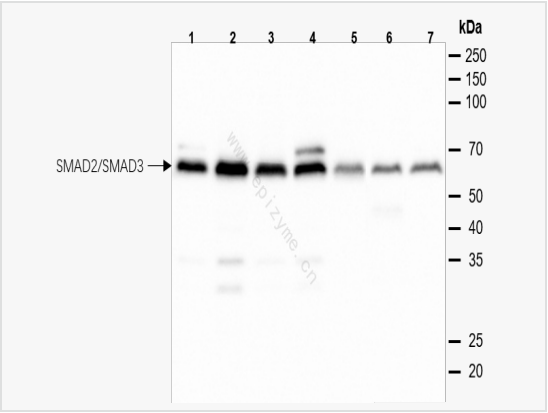
Validation Images



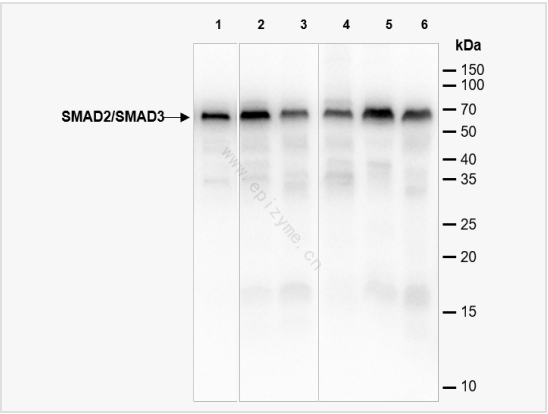
Immunofluorescence - Anti-Smad2/3 Rabbit mAb [14L86C22] Sample: Hela cells The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours. Primary antibodies: R013762 at 1:100 dilution and α-tubulin 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).



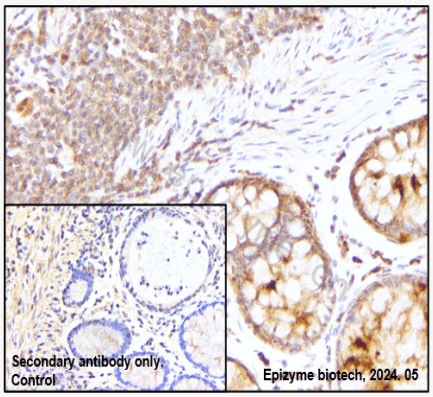
Immunofluorescence - Anti-Smad2/3 Rabbit mAb [14L86C22] Sample: A431 cells The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours. Primary antibodies: R013762 at 1:100 dilution and α-tubulin 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).



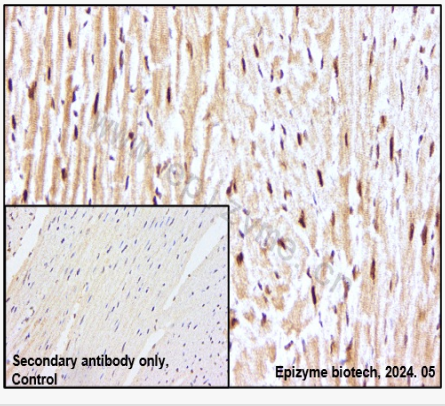
Western Blot - Anti-Smad2/3 Rabbit mAb [14L86C22] All lanes: R013762 at 1:4,000 dilution Lane 1: C2C12 (mouse myoblasts epithelial cell) whole cell lysates Lane 2: Jurkat (human T lymphocytic leukemia cell) whole cell lysates Lane 3: HCT116 (human colorectal carcinoma epithelial cell) whole cell lysates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



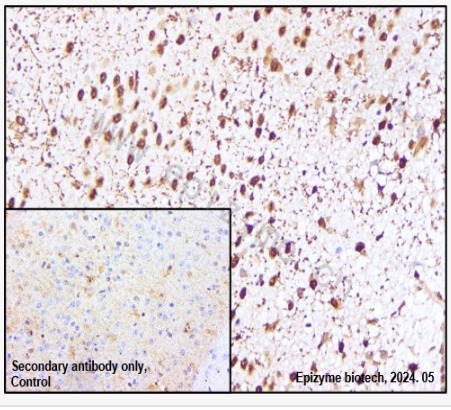
Western Blot - Anti-Smad2/3 Rabbit mAb [14L86C22] All lanes: R013762 at 1:1,000 dilution Lane 1: MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysates Lane 2: T24 (human bladder cancer epithelial cell) whole cell lysates Lane 3: HepG2 (human hepatocellular carcinoma epithelial cell) whole 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 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.