

Anti-Smad2/3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

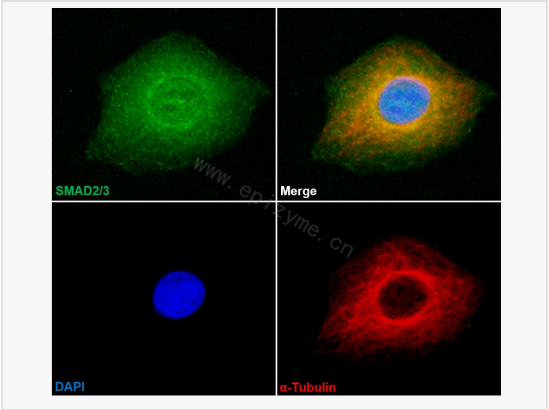
Catalog # R013762

Product Information

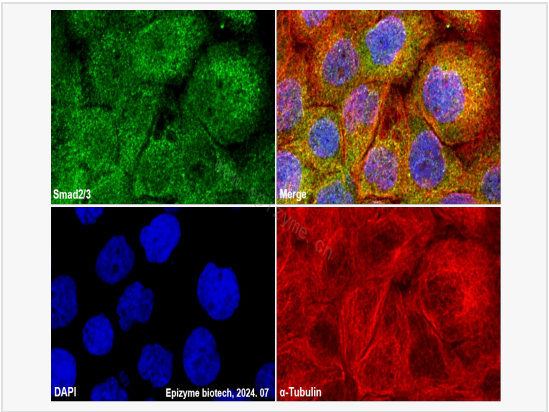
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|-------------|-----------------------------------------------------------------------------------------------------------------------------|
| Application | ELISA, IF (Cell)/ICC, WB, IHC-P, IF (Tissue-P) |
| Reactivity | Human, Mouse, Rat |
| Dilution | 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

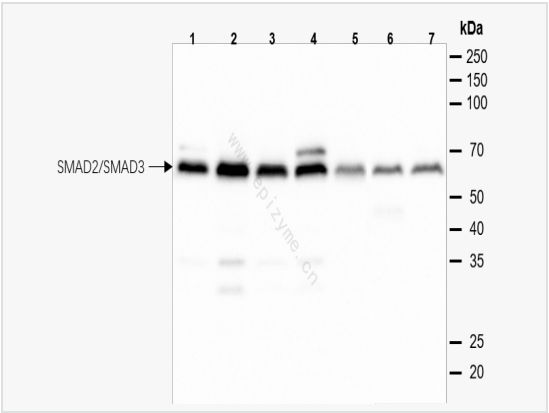
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| Synonyms | SMAD3, MADH3, Mothers against decapentaplegic homolog 3, MAD homolog 3, Mad3, Mothers against DPP homolog 3, hMAD-3, JV15-2, SMAD family member 3, SMAD 3, Smad3, hSMAD3, JV18, MADH2, MADR2, JV18-1, hMAD-2, hSMAD2. |
| Calculated MW | Calculated 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. |



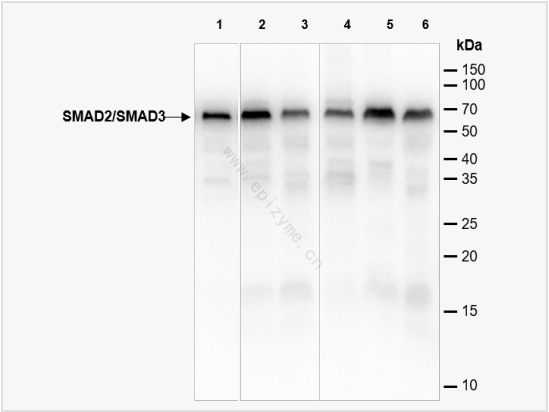
Immunofluorescence - Anti-Smad2/3 Rabbit mAb [14L86C22]
Sample: HeLa cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R013762 at 1:100 dilution and α -tubulin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



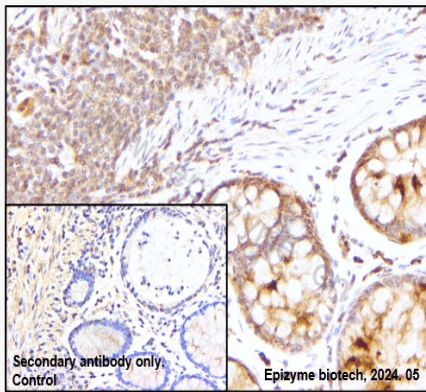
Immunofluorescence - Anti-Smad2/3 Rabbit mAb [14L86C22]
Sample: A431 cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R013762 at 1:100 dilution and α -tubulin 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 μ 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
Lysates/proteins at 10 μ 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: 58-62 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

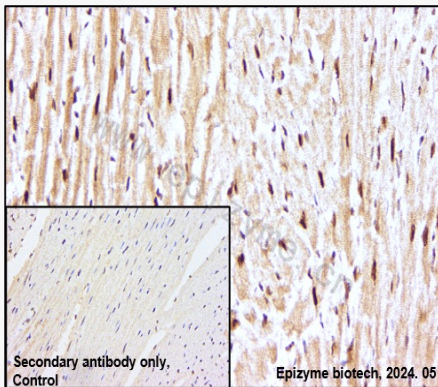
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

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

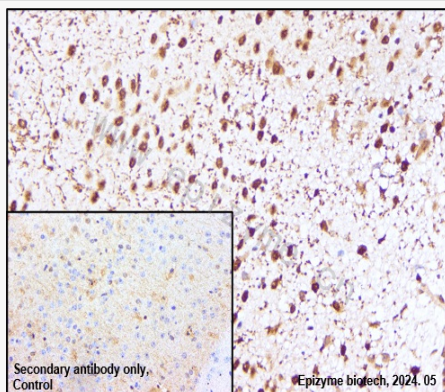
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

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.