

Anti-Smad1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

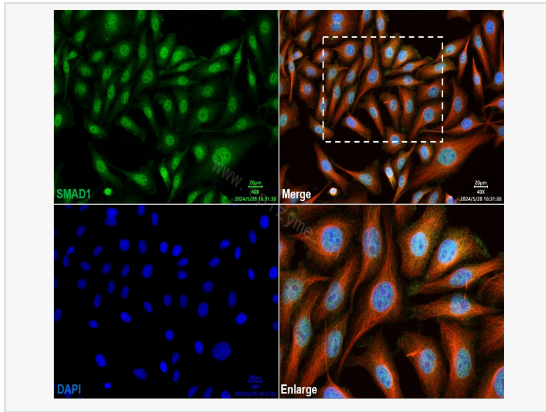
Catalog # R013764

Product Information

Application	IF (Cell)/ICC, ELISA, IHC-P/IF (Tissue-P), WB
Reactivity	Human
Dilution	WB 1:1,000~1:8,000; IHC-P 1:200; IF 1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	28D91L21
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Smad1
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-Smad1 Rabbit mAb [28D91L21] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, JV4-1, Mad-related protein 1, SMAD family member 1, SMAD 1, Smad1, hSMAD1, Transforming growth factor-beta-signaling protein 1, BSP-1, SMAD1, BSP1, MADH1, MADR1.
Calculated MW	52 kDa
Uniprot ID	Q15797
Gene ID	4086
Background	Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1. May act synergistically with SMAD4 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression.
Cellular Location	Cytoplasm. Nucleus Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4 (PubMed:15647271). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15647271). Exported from the nucleus to the cytoplasm when dephosphorylated (By similarity) {ECO:0000250 UniProtKB:P70340, ECO:0000269 PubMed:15647271}.
Tissue Location	Ubiquitous. Highest expression seen in the heart and skeletal muscle.



Immunofluorescence - Anti-Smad1 Rabbit mAb [28D91L21]

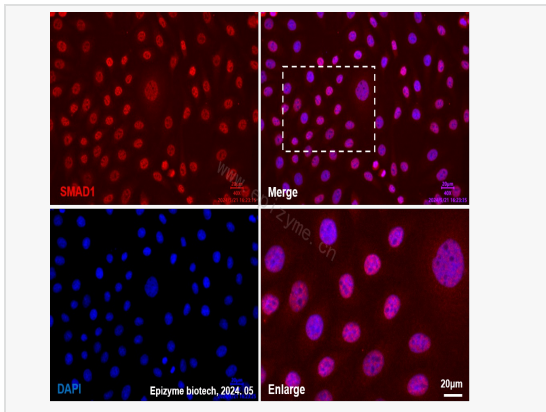
Sample: HeLa cells

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: R013764 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-Smad1 Rabbit mAb [28D91L21]

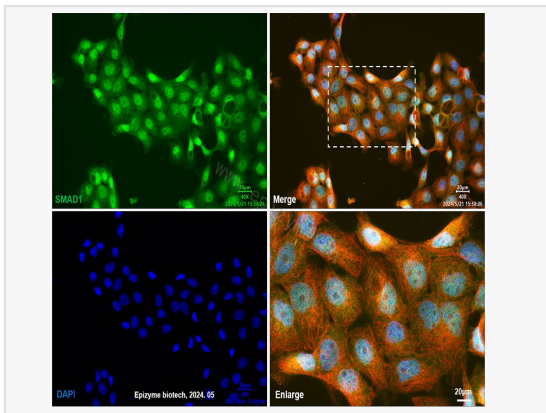
Sample: HeLa cells

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 antibody: R013764 at 1:100 dilution

Secondary antibody: Goat anti-Rabbit (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



Immunofluorescence - Anti-Smad1 Rabbit mAb [28D91L21]

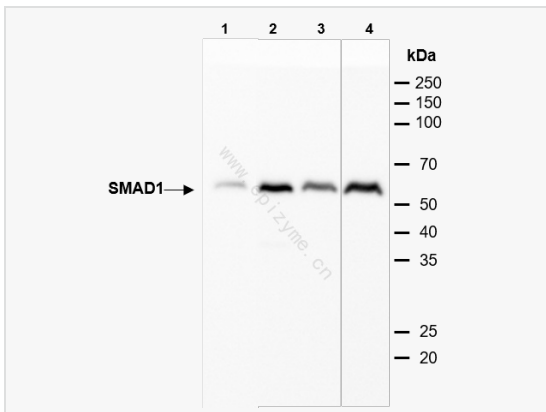
Sample: A431 cells

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: R013764 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-Smad1 Rabbit mAb [28D91L21]

All lanes: R013764 at 1:8,000 dilution

Lane 1: A431 (human epidermoid carcinoma cell line) 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: SW620 (human colorectal carcinoma epithelial cell) whole cell lysates

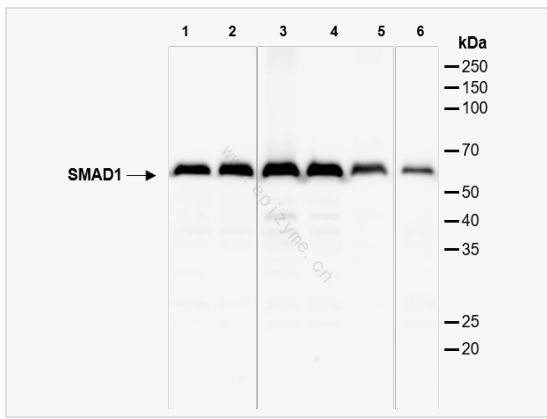
Lysates/proteins at 10 μ g per lane.

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: 52 kDa

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



Western Blot - Anti-Smad1 Rabbit mAb [28D91L21]

All lanes: R013764 at 1:1,000 dilution

Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysates

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

Lane 4: T24 (human bladder cancer epithelial cell) whole cell lysates

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

Lane 6: U2OS (human osteosarcoma epithelial cell) whole cell lysates

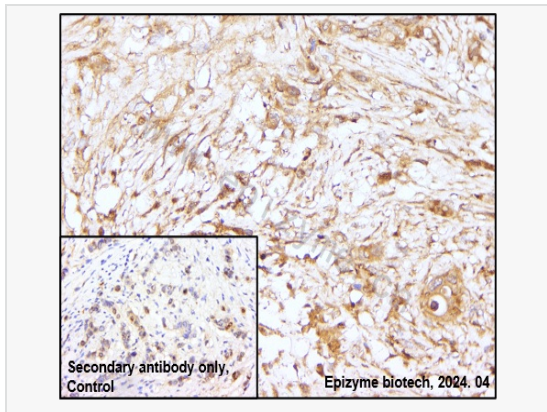
Lysates/proteins at 10 µg per lane.

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: 52 kDa

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



Immunohistochemistry - Anti-Smad1 Rabbit mAb [28D91L21]

Sample: Paraformaldehyde-fixed, paraffin embedded human breast carcinoma tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013764 at 1:200 dilution

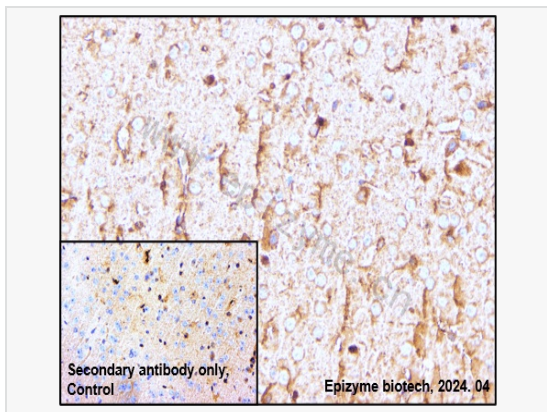
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

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-Smad1 Rabbit mAb [28D91L21]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse brain tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013764 at 1:200 dilution

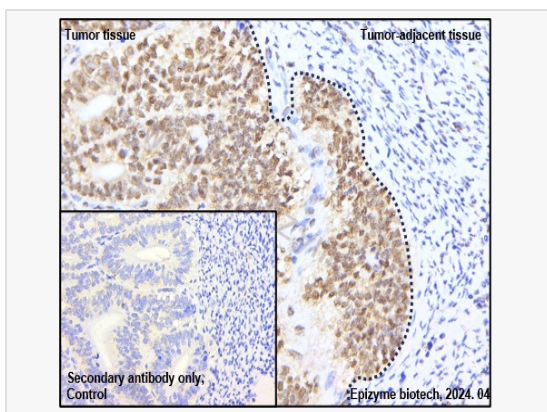
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

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-Smad1 Rabbit mAb [28D91L21]

Sample: Paraformaldehyde-fixed, paraffin embedded human endometrial cancer tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013764 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.