Anti-Smad1 Rabbit mAb

Purified Rabbit Recombinant Monoclonal Antibody

Catalog # R013764

Product Information

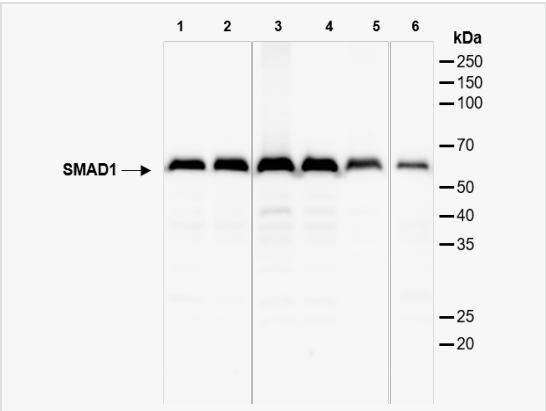
Application	WB, IHC-P, IF (Cell), ELISA
Reactivity	Human, Mouse
Dilution	WB 1:8,000; IHC-P 1:200; IF 1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	28D91L21
Isotype	IgG
Target / Specificity	A synthesized peptide derived from human Smad1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped 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-Smad1 Rabbit mAb [28D91L21] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Other Names	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
Primary Accession	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.

Validation Images

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 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).



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
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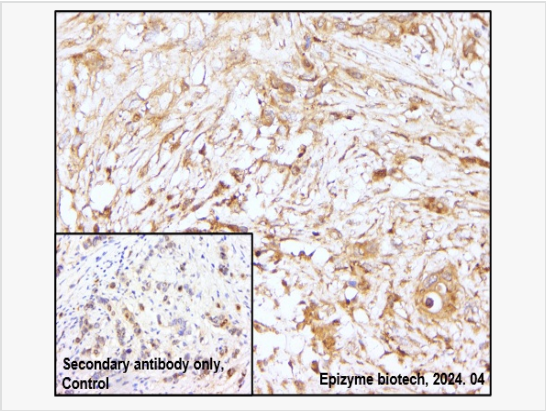
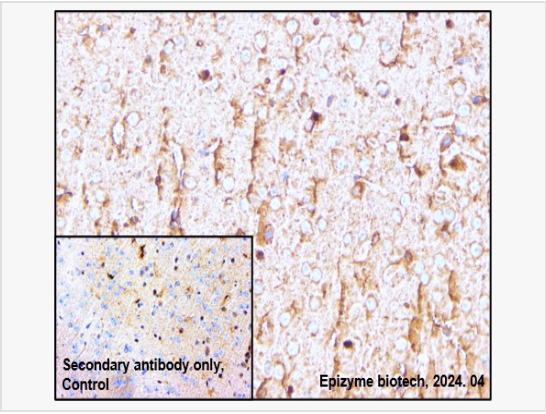
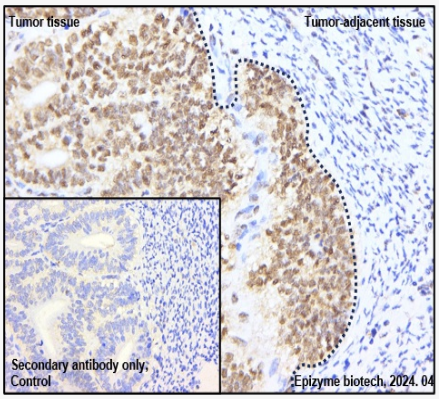


Immunohistochemistry - Anti-Smad1 Rabbit mAb [28D91L21]
Sample: Paraformaldehyde-fixed, paraffin embedded human breast carcinoma tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013764 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), 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.
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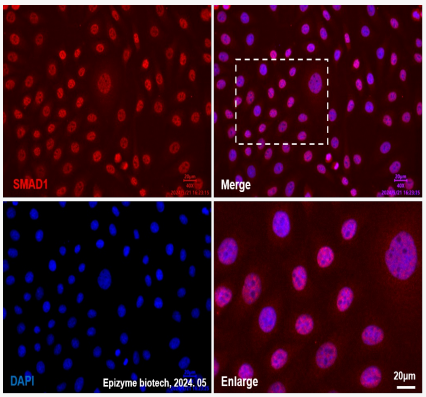
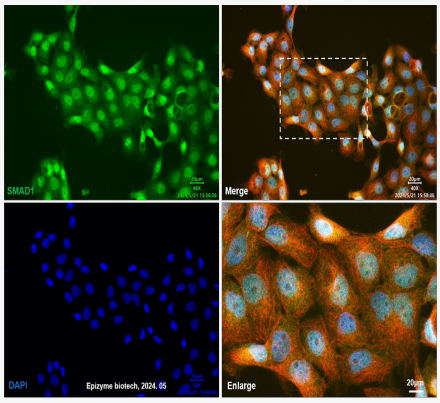
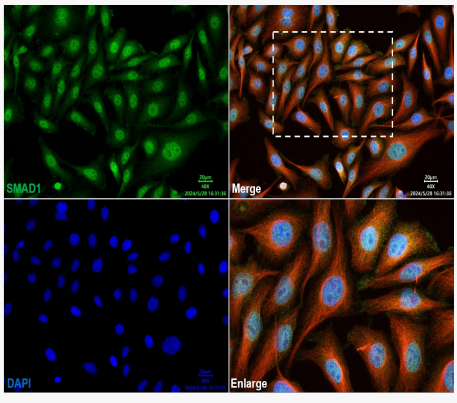


Immunofluorescence - Anti-Smad1 Rabbit mAb [28D91L21]
Sample: Hela cells
The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibody: R013764 at 1:100 dilution
Secondary antibody: Goat 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 100% methanol (5 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: 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).



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