

Smad2 (ANT0011R) Rabbit mAb

CatalogNo: ANT8064 **Recombinant** 

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA
Quantity : 100 ug/vial

Host Species

- Rabbit
- Human,Mouse,Rat,

Reactivity

- WB,IF,IP,ELISA

Applications

MW

- 58kD (Calculated)
 - IgG,Kappa
- 58kD (Observed)

Isotype

Recommended Dilution Ratios

WB 1:1000-1:5000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200,

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Basic Information

Clonality Monoclonal

Clone Number ANT0011R

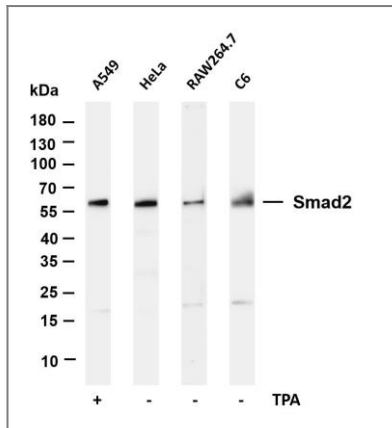
Immunogen Information

Specificity Endogenous

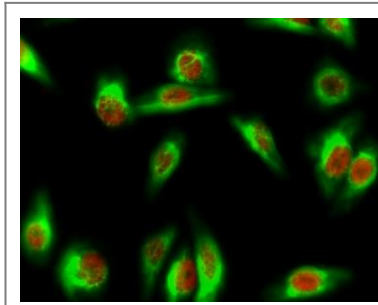
Target Information

Gene name	SMAD2		
Protein Name	Mothers against decapentaplegic homolog 2		
	Organism	Gene ID	UniProt ID
	Human	4087 ;	Q15796 ;
	Mouse	17126 ;	Q62432 ;
	Rat	29357 ;	O70436 ;
Cellular Localization	Cytoplasm,Nuclear		
Tissue specificity	Expressed at high levels in skeletal muscle, endothelial cells, heart and placenta.		
Function	<p>Disease:Defects in SMAD2 are found in sporadic cases of colorectal carcinoma.,Function:Transcriptional modulator activated by TGF-beta and activin type 1 receptor kinase. SMAD2 is a receptor-regulated SMAD (R-SMAD). May act as a tumor suppressor in colorectal carcinoma.,ANTM:Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo.,PTM:In response to TGF-beta, ubiquitinated by NEDD4L; which promotes its degradation.,PTM:Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, phosphorylated on Ser-240 by CaMK2. Phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin.,similarity:Belongs to the dwarfin/SMAD family.,similarity:Contains 1 MH1 (MAD homology 1) domain.,similarity:Contains 1 MH2 (MAD homology 2) domain.,subcellular location:Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4.,subunit:Found in a complex with SMAD3 and TRIM33 upon addition of TGF-beta. Interacts with SMAD3 and TRIM33. Interacts with SARA (SMAD anchor for receptor activation); may form trimers with the SMAD4 coSMAD. Interacts with FOXH1, homeobox protein TGIF, PEBP2-alpha subunit, CREB-binding protein (CBP), EP300 and SKI. Interacts with SNON; when phosphorylated at Ser-465/467. Interacts (via PY-motif) with SMURF2. Interacts with AIP1 and HGS. Interacts with NEDD4L in response to TGF-beta (By similarity). Interacts with LBXCOR1 and CORL2.,tissue specificity:Expressed at high levels in skeletal muscle, heart and placenta.,</p>		

Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Smad2 (ANT0011R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1:A549 treated with TPA of 48 hours Lane 2: HeLa Lane 3: RAW264.7 Lane 4: C6 Predicted band size: 58kDa Observed band size: 58kDa



Immunofluorescence analysis of HeLa cell. 1,Smad2 Antibody(red) was diluted at 1:200(4° overnight). MICU1 Monoclonal Antibody(Mix)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).

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