

For Research Use Only

SMAD2 Polyclonal antibody

Catalog Number: 23499-1-AP



Basic Information

Catalog Number: 23499-1-AP	GenBank Accession Number: BC014840	Purification Method: Antigen affinity purification
Size: 547 µg/ml	GeneID (NCBI): 4087	Recommended Dilutions: WB 1:500-1:2000
Source: Rabbit	UNIPROT ID: Q15796	
Isotype: IgG	Full Name: SMAD family member 2	
Immunogen Catalog Number: AG19542	Calculated MW: 467 aa, 52 kDa	
	Observed MW: 58 kDa	

Applications

Tested Applications: WB, ELISA	Positive Controls: WB: Jurkat cells,
Species Specificity: human	

Background Information

SMAD2, also named as MADH2 and MADR2, belongs to the dwarfin/SMAD family, contains 1 MH1 (MAD homology 1) domain and 1 MH2 (MAD homology 2) domain. SMAD2 is a receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta and activin type 1 receptor kinases. This protein may act as a tumor suppressor in colorectal carcinoma. It is phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, it is phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases, and then able to interact with SMURF2, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, it is phosphorylated on Ser-240 by CaMK2. It is phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin. In response to TGF-beta, it is ubiquitinated by NEDD4L, which promotes its degradation. In response to TGF-beta signaling, it is acetylated on Lys-19 by coactivators, which increases transcriptional activity.

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

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Selected Validation Data