

For Research Use Only

# SMAD2 Polyclonal antibody

Catalog Number: 23499-1-AP



## Basic Information

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

## Applications

<b>Tested Applications:</b> WB, ELISA	<b>Positive Controls:</b> WB: Jurkat cells,
<b>Species Specificity:</b> 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**

For technical support and original validation data for this product please contact:

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## Selected Validation Data