

For Research Use Only

# SMAD2 Monoclonal antibody, PBS Only



Catalog Number: 67343-1-PBS

## Basic Information

<b>Catalog Number:</b> 67343-1-PBS	<b>GenBank Accession Number:</b> BC014840	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 1 mg/ml	<b>GeneID (NCBI):</b> 4087	<b>CloneNo.:</b> 2H10C7
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q15796	
<b>Isotype:</b> IgG1	<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

**Tested Applications:**  
WB, Indirect ELISA, IHC, IF

**Species Specificity:**  
Human, mouse, rat

## 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. The molecular weight of unphosphorylated forms of Smad2 is 52 kDa and phosphorylated forms of Smad2 is 58 kDa. (PMID: 9006934)

## Storage

**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

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

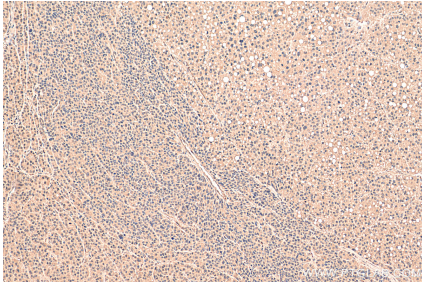
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

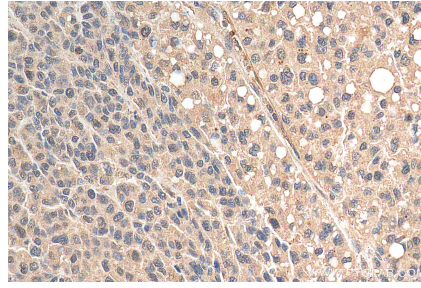
W: [ptgcn.com](http://ptgcn.com)

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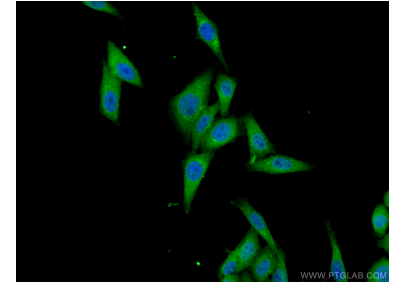
## Selected Validation Data



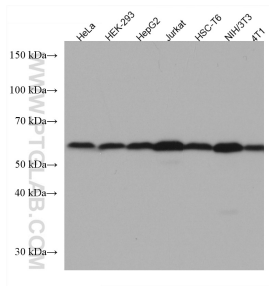
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67343-1-Ig (SMAD2 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67343-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67343-1-Ig (SMAD2 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67343-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 67343-1-Ig (SMAD2 antibody) at dilution of 1:100 and CoraLite488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 67343-1-PBS in a different storage buffer formulation.



Various lysates were subjected to SDS PAGE followed by western blot with 67343-1-Ig (SMAD2 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67343-1-PBS in a different storage buffer formulation.