

# SMAD2 Monoclonal antibody, PBS Only

Catalog Number: 67343-1-PBS

## Basic Information

Catalog Number: 67343-1-PBS	GenBank Accession Number: BC014840	Purification Method: Protein G purification
Size: 1 mg/ml	GeneID (NCBI): 4087	CloneNo.: 2H10C7
Source: Mouse	UNIPROT ID: Q15796	
Isotype: IgG1	Full Name: SMAD family member 2	
Immunogen Catalog Number: AG19542	Calculated MW: 467 aa, 52 kDa	
	Observed MW: 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.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

**Storage Buffer:**  
PBS Only

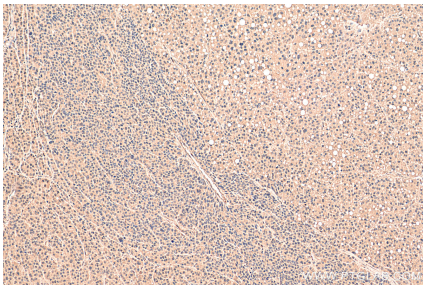
For technical support and original validation data for this product please contact:

T: 4006900926

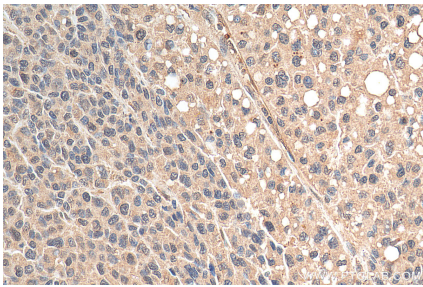
E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

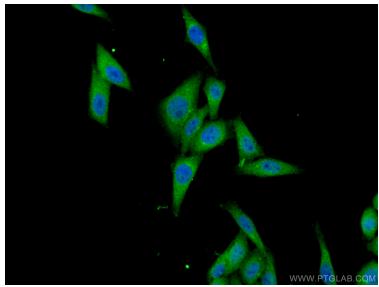
Selected Validation Data



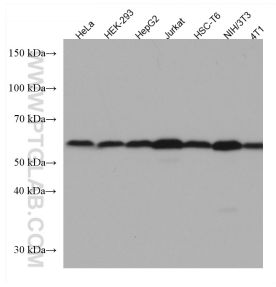
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67343-1-Ig (SMAD2 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67343-1-PBS in a different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