

For Research Use Only

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: 100ug , Concentration: 1 mg/ml by Nanodrop;	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, IF, IHC, Indirect ELISA

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

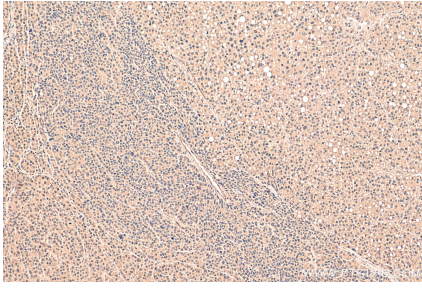
Storage:
Store at -80°C.

Storage Buffer:
PBS Only

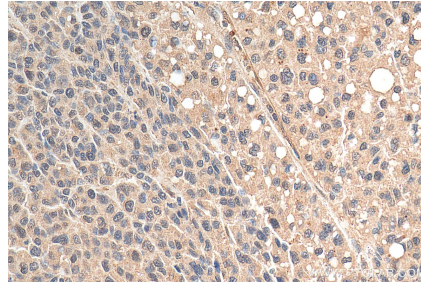
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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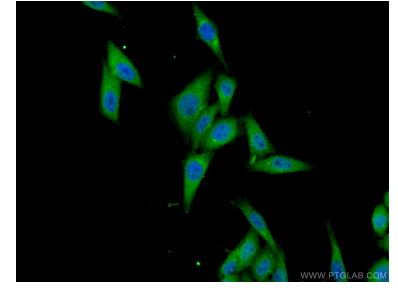
Selected Validation Data



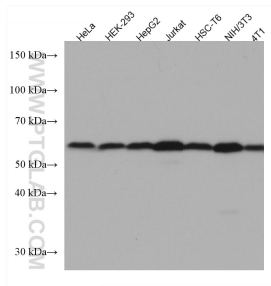
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67343-1-Ig (SMAD2 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67343-1-PBS in a different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