

For Research Use Only

SMAD7 Monoclonal antibody, PBS Only

Catalog Number: 68594-1-PBS



Basic Information

Catalog Number: 68594-1-PBS	GenBank Accession Number: BC074819	Purification Method: Protein A purification
Size: 100ug, Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 4092	CloneNo.: 3D1C3
Source: Mouse	UNIPROT ID: O15105	
Isotype: IgG2a	Full Name: SMAD family member 7	
Immunogen Catalog Number: AG13688	Calculated MW: 426 aa, 46 kDa	
	Observed MW: 45-55 kDa	

Applications

Tested Applications:
WB, IF/ICC, FC (Intra), Indirect ELISA

Species Specificity:
human, mouse, rat, pig, rabbit

Background Information

SMAD7, also named as Mothers against decapentaplegic homolog 7, is a 426 amino acid protein, which belongs to the dwarfin/SMAD family. SMAD7 Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm (PubMed:16601693). TGF-beta stimulates its translocation from the nucleus to the cytoplasm. PDPK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta (PubMed:17327236). SMAD7 as antagonist of signaling by TGF-beta type 1 receptor superfamily members has been shown to inhibit TGF-beta and activin signaling by associating with their receptors thus preventing SMAD2 access. SMAD7 functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex and also acts by recruiting the PPP1R15A-PP1 complex to TGFBR1, which promotes its dephosphorylation. SMAD7 positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.

Storage

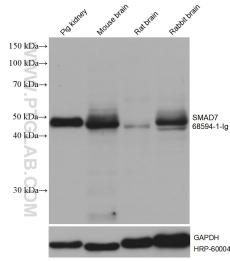
Storage:
Store at -80°C.

Storage Buffer:
PBS Only

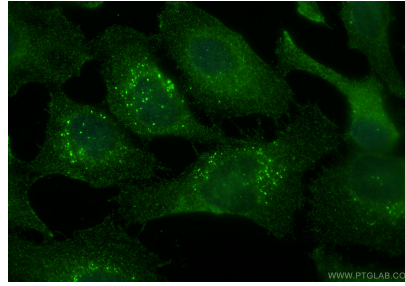
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com
W: ptglab.com

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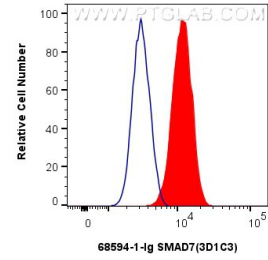
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 68594-1-Ig (SMAD7 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control. This data was developed using the same antibody clone with 68594-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using SMAD7 antibody (68594-1-Ig, Clone: 3D1C3) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1). This data was developed using the same antibody clone with 68594-1-PBS in a different storage buffer formulation.



1x10⁶ U2OS cells were intracellularly stained with 0.25 ug SMAD7 Monoclonal antibody (68594-1-Ig, Clone:3D1C3) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.25 ug Mouse IgG2a isotype control Mouse McAb (66360-2-Ig, Clone: 11A1B2) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 68594-1-PBS in a different storage

