

For Research Use Only

SMAD7 Monoclonal antibody

Catalog Number: 68594-1-Ig



Basic Information

Catalog Number: 68594-1-Ig	GenBank Accession Number: BC074819	Purification Method: Protein A purification
Size: 150ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 4092	CloneNo.: 3D1C3
Source: Mouse	UNIPROT ID: O15105	Recommended Dilutions: WB 1:5000-1:50000 IF/ICC 1:200-1:800
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), ELISA	Positive Controls:
Species Specificity: human, mouse, rat, pig, rabbit	WB : pig kidney tissue, mouse brain tissue, rat brain tissue, rabbit brain tissue
	IF/ICC : HeLa cells,

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

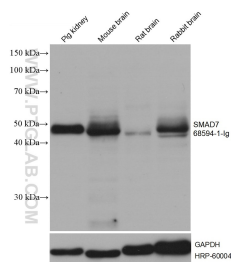
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

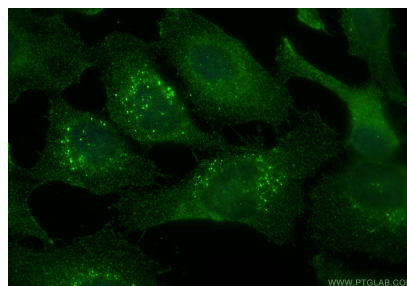
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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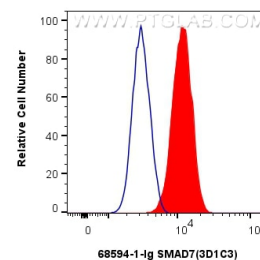
Selected Validation Data



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.



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).



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).