

For Research Use Only

SMAD7 Monoclonal antibody

Catalog Number: 68594-1-Ig



Basic Information

Catalog Number:

68594-1-Ig

Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

Source:

Mouse

Isotype:

IgG2a

Immunogen Catalog Number:

AG13688

GenBank Accession Number:

BC074819

GeneID (NCBI):

4092

UNIPROT ID:

O15105

Full Name:

SMAD family member 7

Calculated MW:

426 aa, 46 kDa

Observed MW:

45-55 kDa

Purification Method:

Protein A purification

CloneNo.:

3D1C3

Recommended Dilutions:

WB: 1:5000-1:50000

IF/ICC: 1:200-1:800

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), ELISA

Species Specificity:

human, mouse, rat, pig, rabbit

Positive Controls:

WB : pig kidney tissue, mouse brain tissue, rat brain tissue, rabbit brain tissue

IF/ICC : HeLa cells,

FC (Intra) : U2OS 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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

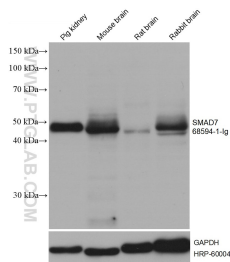
For technical support and original validation data for this product please contact:

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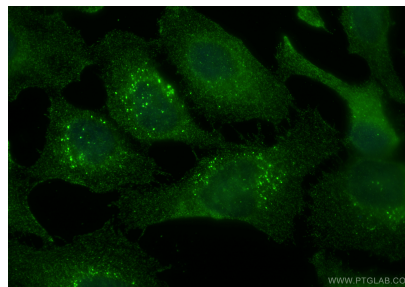
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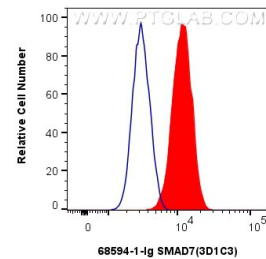
Selected Validation Data



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).