

For Research Use Only

SMAD7 Polyclonal antibody

Catalog Number: 25840-1-AP

Featured Product

102 Publications



Basic Information

Catalog Number:

25840-1-AP

Size:

150ul, Concentration: 500 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

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:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:3000

IHC 1:50-1:500

Applications

Tested Applications:

WB, IHC, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse

Cited Species:

human, mouse, rat, pig

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HEK-293 cells, HepG2 cells, NIH/3T3 cells, MCF-7 cells, SH-SY5Y cells, SW480 cells

IHC : mouse liver tissue,

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Hongjuan Yao	36127339	Nat Commun	WB
Qian Zhang	30230565	J Cell Biochem	WB
Yongzhong Mao	34525946	J Physiol Sci	WB, CoIP

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

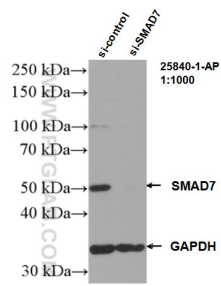
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

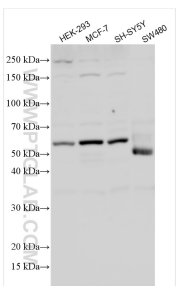
E: proteintech@ptglab.com
W: ptglab.com

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

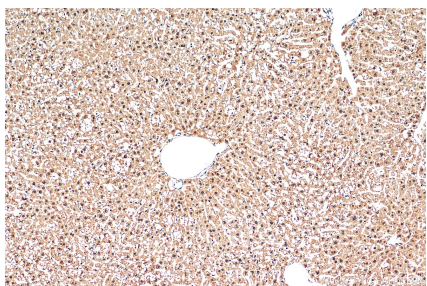
Selected Validation Data



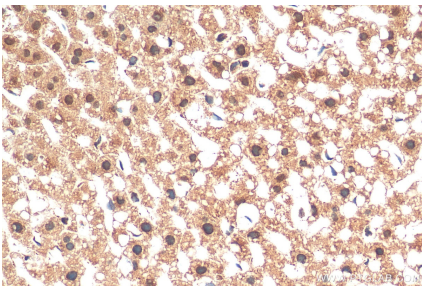
WB result of SMAD7 antibody (25840-1-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SMAD7 transfected HepG2 cells.



Various lysates were subjected to SDS PAGE followed by western blot with 25840-1-AP (SMAD7 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 25840-1-AP (SMAD7 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 25840-1-AP (SMAD7 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).