

For Research Use Only

# SMAD7 Polyclonal antibody

Catalog Number: 25840-1-AP

Featured Product

33 Publications



## Basic Information

**Catalog Number:**

25840-1-AP

**Size:**

150UL, Concentration: 540 µg/ml by Bradford method using BSA as the standard;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG13688

**GenBank Accession Number:**

BC074819

**GeneID (NCBI):**

4092

**Full Name:**

SMAD family member 7

**Calculated MW:**

426 aa, 46 kDa

**Observed MW:**

46 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:500-1:2000

IHC 1:50-1:500

## Applications

**Tested Applications:**

IHC, WB, ELISA

**Cited Applications:**

IF, IHC, WB

**Species Specificity:**

human, mouse

**Cited Species:**

human, mouse, rat

**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: mouse liver tissue, L02 cells, HepG2 cells, mouse lung tissue, mouse skeletal muscle tissue, mouse kidney tissue

IHC: human liver tissue, human hepatocirrhosis 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 RNF 111 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
Qian Zhang	30230565	J Cell Biochem	WB
J Wu	27041581	Oncogene	WB
Zhi-Zheng Li	33068010	Br J Pharmacol	WB,IHC

## 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

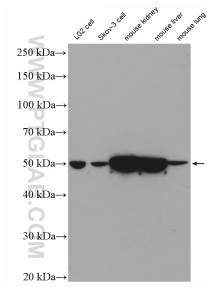
For technical support and original validation data for this product please contact:

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

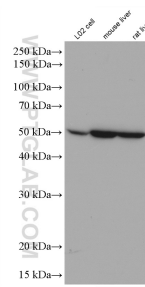
E: proteintech@ptglab.com  
W: ptglab.com

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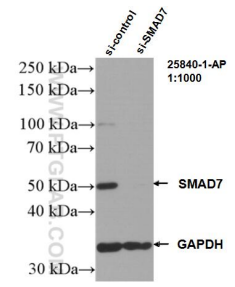
## Selected Validation Data



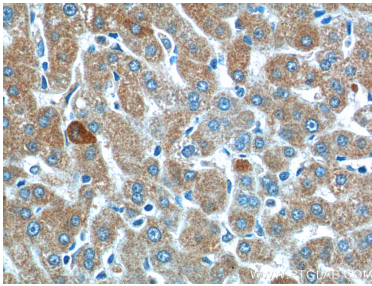
Various lysates were subjected to SDS PAGE followed by western blot with 25840-1-AP (SMAD7 antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 25840-1-AP (SMAD7 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



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.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 25840-1-AP (SMAD7 Antibody) at dilution of 1:200 (under 40x lens).