

For Research Use Only

# SMAD7 Monoclonal antibody

Catalog Number: 68594-1-Ig



## Basic Information

<b>Catalog Number:</b> 68594-1-Ig	<b>GenBank Accession Number:</b> BC074819	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4092	<b>CloneNo.:</b> 3D1C3
<b>Source:</b> Mouse	<b>Full Name:</b> SMAD family member 7	<b>Recommended Dilutions:</b> WB 1:5000-1:50000
<b>Isotype:</b> IgG2a	<b>Calculated MW:</b> 426 aa, 46 kDa	
<b>Immunogen Catalog Number:</b> AG13688	<b>Observed MW:</b> 45-55 kDa	

## Applications

**Tested Applications:**  
WB, ELISA

**Species Specificity:**  
Human, mouse, rat, rabbit, pig

**Positive Controls:**

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

## 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

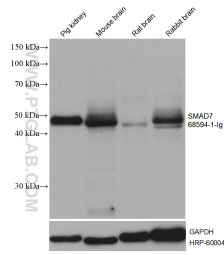
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## Selected Validation Data



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.