

SMAD7 Recombinant monoclonal antibody

Catalog Number: 80964-5-RR

Basic Information

Catalog Number: 80964-5-RR	GenBank Accession Number: BC074819	Purification Method: Protein A purification
Source: Rabbit	GeneID (NCBI): 4092	CloneNo.: 251688E3
Isotype: IgG	UNIPROT ID: O15105	Recommended Dilutions: WB: 1:1000-1:6000 IHC: 1:50-1:500
Immunogen Catalog Number: AG13688	Full Name: SMAD family member 7	
	Calculated MW: 426 aa, 46 kDa	
	Observed MW: 58 kDa	

Applications

Tested Applications: WB, IHC, ELISA	Positive Controls:
Species Specificity: human, mouse, rat	WB : SH-SY5Y cells, mouse brain tissue, rat brain tissue
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IHC : mouse liver tissue, human urothelial carcinoma tissue

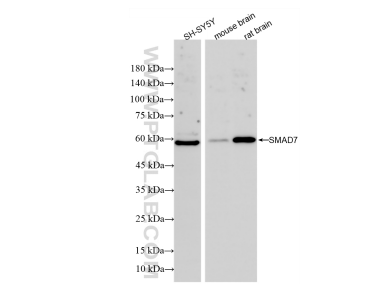
Background Information

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.

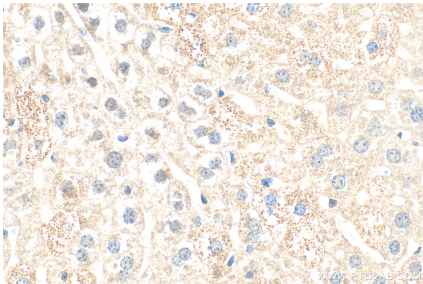
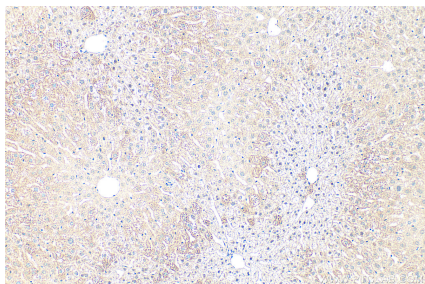
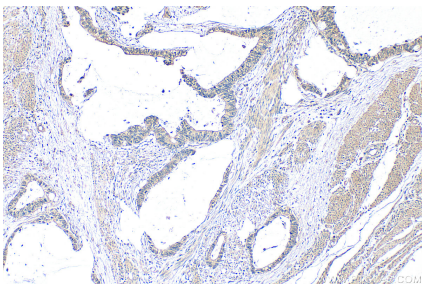
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 80964-5-RR (SMAD7 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 80964-5-RR (SMAD7 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).