

SMAD7 Antibody (aa49-317) Rabbit Polyclonal Antibody Catalog # ALS17017

### Specification

# SMAD7 Antibody (aa49-317) - Product Information

Application Primary Accession Other Accession Reactivity Host	IHC <u>015105</u> <u>4092</u> Human Rabbit
5	
Clonality	Polyclonal
Isotype	lgG
Calculated MW	46426

## SMAD7 Antibody (aa49-317) - Additional Information

Gene ID 4092

**Other Names** SMAD7, CRCS3, HSMAD7, MAD homolog 7, SMAD 7, MADH7, MADH8, Mothers against DPP homolog 7, Mothers against DPP homolog 8, MAD homolog 8, SMAD family member 7

Target/Specificity Human SMAD7

**Reconstitution & Storage** 0.1 M Tris-glycine, pH 7, 10% Glycerol, 0.01% Thimerosal. Keep as concentrated solution. Aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

**Precautions** SMAD7 Antibody (aa49-317) is for research use only and not for use in diagnostic or therapeutic procedures.

### SMAD7 Antibody (aa49-317) - Protein Information

Name SMAD7

Synonyms MADH7, MADH8

Function

Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access (PubMed:<a href="http://www.uniprot.org/citations/21791611" target="\_blank">21791611</a>). Functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex. Also acts by recruiting the PPP1R15A-PP1 complex to TGFBR1, which promotes its dephosphorylation. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as



a negative regulator.

#### **Cellular Location**

Nucleus. Cytoplasm. Note=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)

#### **Tissue Location**

Ubiquitous with higher expression in the lung and vascular endothelium

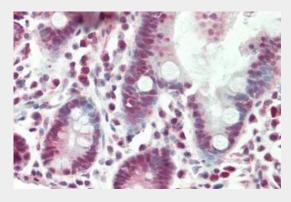
Volume 50 μl

## SMAD7 Antibody (aa49-317) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SMAD7 Antibody (aa49-317) - Images



Human Small Intestine: Formalin-Fixed, Paraffin-Embedded (FFPE)

# SMAD7 Antibody (aa49-317) - Background

Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access. Functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex. Also acts by recruiting the PPP1R15A- PP1 complex to TGFBR1, which promotes its dephosphorylation. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator (By similarity).

### SMAD7 Antibody (aa49-317) - References



Hayashi H.,et al.Cell 89:1165-1173(1997). Topper J.N.,et al.Proc. Natl. Acad. Sci. U.S.A. 94:9314-9319(1997). Nakao A.,et al.Nature 389:631-635(1997). Hagiwara K.,et al.Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases. Ota T.,et al.Nat. Genet. 36:40-45(2004).