

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

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**SMAD7 Antibody (aa49-317) - Product Information**

Application	IHC
Primary Accession	<a href="#">O15105</a>
Other Accession	<a href="#">4092</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
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**

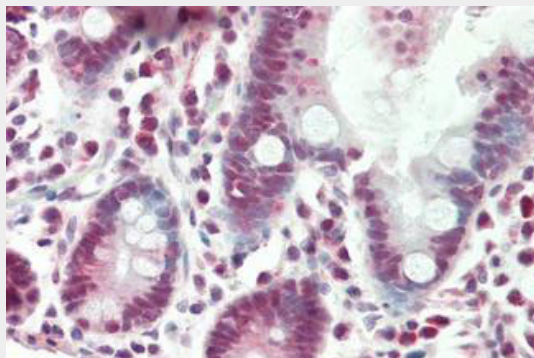
50 µl

### **SMAD7 Antibody (aa49-317) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **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).