

**SMAD4 Antibody**  
**Rabbit Anti-Human SMAD4 Polyclonal**  
**Catalog # ASM10579**

**Specification**

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**SMAD4 Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">O13485</a>
Other Accession	<a href="#">NP_005350.1</a>
Host	Rabbit
Clonality	Polyclonal
Format	SMAD4
<b>Target/Specificity</b>	
SMAD4	

**Other Names**

SMAD 4 Antibody, MADH4 Antibody, SMAD4 Antibody, SMAD family member 4 Antibody, Smad4 Antibody, Mothers against decapentaplegic homolog 4 Antibody, DPC4 Antibody, hSMAD4 Antibody, MAD homolog 4 Antibody, Deletion target in pancreatic carcinoma 4 Antibody, Mothers against DPP homolog 4 Antibody

**Immunogen**

Synthetic peptide of Human SMAD4 (200-300 aa), conjugated to Keyhole Limpet Haemocyanin (KLH).

**Purification**

Peptide Affinity Purified

Storage **-20°C**

**Storage Buffer**

PBS pH 7.4, 50% glycerol, 0.09% sodium azide \*Storage buffer may change when conjugated

Shipping Temperature

**Blue Ice or 4°C**

**Certificate of Analysis**

A 1:1000 dilution of SPC-730 was sufficient for detection of SMAD4 in 15 µg of human HeLa cell lysates by ECL immunoblot analysis using goat anti-rabbit IgG:HRP as the secondary antibody.

**Cellular Localization**

Cytoplasm | Nucleus

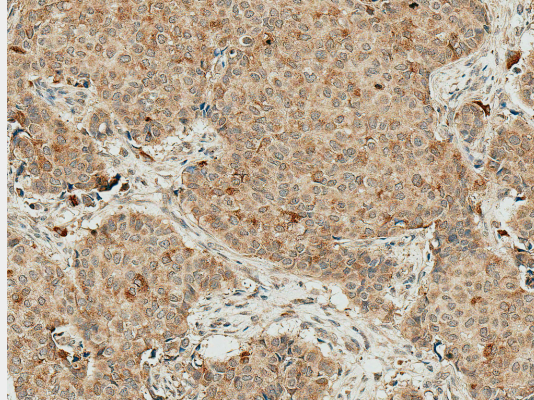
**SMAD4 Antibody - Protocols**

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

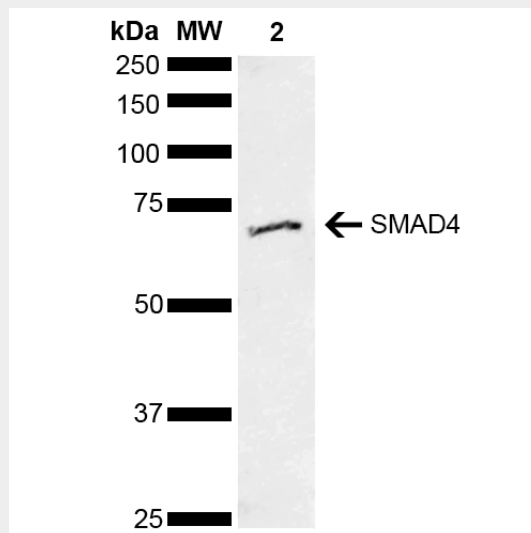
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### SMAD4 Antibody - Images



Immunohistochemistry analysis using Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730). Tissue: Breast Cancer. Species: Human. Fixation: Formalin Fixed Paraffin-Embedded. Primary Antibody: Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730) at 1:50 for 30 min at RT. Counterstain: Hematoxylin. Magnification: 10X. HRP-DAB Detection. | Western blot analysis of Human Cervical cancer cell line (HeLa) lysate showing detection of ~60.4 kDa SMAD4 protein using Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730). Lane 1: Molecular Weight Ladder (MW). Lane 2: Cervical Cancer cell line (HeLa) lysate. Load: 10 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Rabbit HRP:IgG at 1:3000 for 1 hour at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~60.4 kDa.



Immunohistochemistry analysis using Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730). Tissue: Breast Cancer. Species: Human. Fixation: Formalin Fixed Paraffin-Embedded. Primary Antibody: Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730) at 1:50 for 30 min at RT. Counterstain: Hematoxylin. Magnification: 10X. HRP-DAB Detection. | Western blot analysis of Human Cervical cancer cell line (HeLa) lysate showing detection of ~60.4 kDa SMAD4 protein using Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730). Lane 1: Molecular Weight Ladder (MW). Lane 2: Cervical Cancer cell line (HeLa) lysate. Load: 10 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Rabbit Anti-SMAD4 Polyclonal Antibody (SPC-730) at 1:1000 for 2 hours at RT.

Secondary Antibody: Goat Anti-Rabbit HRP:IgG at 1:3000 for 1 hour at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~60.4 kDa.

### **SMAD4 Antibody - Background**

Members of the Smad family of cell signaling molecules are components of a critical intracellular pathway that transmit TGF- $\beta$  signals from the cell surface into the nucleus. There are three distinct classes of Smads: the receptor-regulated Smads (R-Smads), the common-mediator Smad (co-Smad), and the antagonistic or inhibitory Smads. Following stimulation by TGF- $\beta$ , Smad2 and Smad3 become phosphorylated at their carboxyl termini (Ser465 and 467 on Smad2; Ser423 and 425 on Smad3) by TGF- $\beta$  Receptor I. Phosphorylated Smad 2/3 can complex with Smad4, translocate to the nucleus and regulate gene expression.

### **SMAD4 Antibody - References**

1. Heldin C.H. et al. (1997) Nature. 390: 465-471.
2. Attisano L. and Wrana, J.L. (1998) Curr Opin Cell Biol. 10: 188-194.
3. Massagué J. (1998) Annu Rev Biochem. 67: 753-791.
4. Whitman M. (1998) Genes Dev. 12: 2445-2462.
5. Wu G. et al. (2000) Science. 287: 92-97.
6. Abdollah S., et al. (1997) J. Biol. Chem. 272: 27678-27685.
7. Souchelnytskyi S., et al. (1997) J. Biol. Chem. 272: 28107-28115.
8. Liu X., et al. (1997) Proc. Natl. Acad. Sci. USA. 94: 10669-10674.