

**Smad1/5 (Ser463/465) Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20641b**

**Specification**

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**Smad1/5 (Ser463/465) Antibody - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q15797</a>
Other Accession	<a href="#">O54835</a> , <a href="#">Q9JIW5</a> , <a href="#">O15198</a> , <a href="#">P97588</a> , <a href="#">P70340</a> , <a href="#">Q9I8V2</a> , <a href="#">Q1JOA2</a>
Reactivity	Human
Predicted	Bovine, Zebrafish, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**Smad1/5 (Ser463/465) Antibody - Additional Information**

**Gene ID** 4086

**Other Names**

Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, JV4-1, Mad-related protein 1, SMAD family member 1, SMAD 1, Smad1, hSMAD1, Transforming growth factor-beta-signaling protein 1, BSP-1, SMAD1, BSP1, MADH1, MADR1

**Target/Specificity**

This antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 455-485 amino acids from human.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Smad1/5 (Ser463/465) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Smad1/5 (Ser463/465) Antibody - Protein Information**

**Name** SMAD1

**Synonyms** BSP1, MADH1, MADR1

**Function** Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis (PubMed:[9335504](#)). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRIIs) and associates with SMAD4 to form a heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed:[33667543](#)). In turn, the hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:[33667543](#)). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1. Positively regulates BMP4-induced expression of odontogenic development regulator MSX1 following IPO7-mediated nuclear import (By similarity).

**Cellular Location**

Cytoplasm. Nucleus Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4 (PubMed:[15647271](#)). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:[15647271](#)). Exported from the nucleus to the cytoplasm when dephosphorylated (By similarity) {ECO:0000250|UniProtKB:P70340, ECO:0000269|PubMed:[15647271](#)}

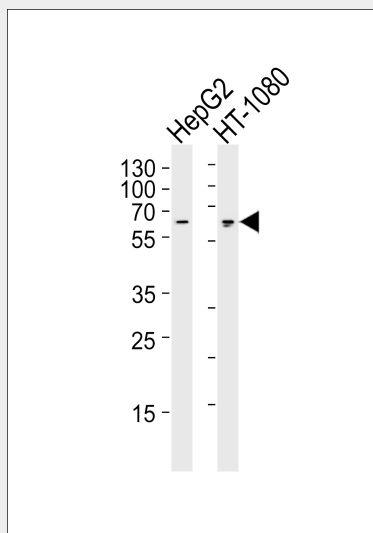
**Tissue Location**

Ubiquitous. Highest expression seen in the heart and skeletal muscle

**Smad1/5 (Ser463/465) 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](#)

**Smad1/5 (Ser463/465) Antibody - Images**

Western blot analysis of lysates from HepG2, HT-1080 cell line (from left to right), using Smad1/5 Antibody (Ser463/465), ctrl3 (Cat. #AP20641b). AP20641b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

#### **Smad1/5 (Ser463/465) Antibody - Background**

Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1.

#### **Smad1/5 (Ser463/465) Antibody - References**

Riggins G.J., et al. Nat. Genet. 13:347-349(1996).  
Liu F., et al. Nature 381:620-623(1996).  
Hoodless P.A., et al. Cell 85:489-500(1996).  
Lechleider R.J., et al. J. Biol. Chem. 271:17617-17620(1996).  
Zhang Y., et al. Nature 383:168-172(1996).