

**Smad1 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10336****Specification**

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**Smad1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P97588</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	52713

**Smad1 Antibody - Additional Information****Gene ID** 25671**Application & Usage**

**Western blotting (0.5-4 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes ~50-60 kDa Smad1 from samples of human, mouse, and rat origins. Reactivity to other species has not been tested.**

**Other Names**

MADR1 , JV41 , JV4-1 , GARS , CMT2D , hSMAD1 , HMN5 , MADH1 , BSP-1 , BSP1

**Target/Specificity**

Smad1

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

**Precautions**

Smad1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Smad1 Antibody - Protein Information**

**Name** Smad1

**Synonyms** Mad1, Madh1

**Function**

Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis. 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 an heteromeric complex which translocates into the nucleus acting as transcription factor. In turn, the hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network. 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 {ECO:0000250|UniProtKB:Q15797}. Nucleus {ECO:0000250|UniProtKB:Q15797}. Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4. Co-localizes with LEMD3 at the nucleus inner membrane (By similarity). Exported from the nucleus to the cytoplasm when dephosphorylated (By similarity) {ECO:0000250|UniProtKB:P70340, ECO:0000250|UniProtKB:Q15797}

**Tissue Location**

Ubiquitous; present in liver, lung, stomach and spleen with lower level in heart, testes and skeletal muscle

**Smad1 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 Antibody - Images****Smad1 Antibody - Background**

Smad proteins, the mammalian homologs of the Drosophila Mothers against dpp (Mad), have been implicated as downstream effectors of TGF $\beta$ /BMP signaling. Smad1, Smad5, and Smad8 are effectors of BMP2 and BMP4 function while Smad2 and Smad3 are involved in TGF- $\beta$  and activin-mediated growth modulation. Smad4 has been shown to mediate all of the above activities through interaction with various Smad family members. Smad6 and Smad7 regulate the response to activin/TGF $\beta$  signaling by interfering with TGF $\beta$ -mediated phosphorylation of other Smad family

members.