

### Smad1 Antibody

Rabbit mAb **Catalog # AP90872** 

### **Specification**

### **Smad1 Antibody - Product Information**

WB, IHC, FC, ICC Application

**Primary Accession** 015797 Clonality **Monoclonal** 

**Other Names** 

MAD homolog 1; Mothers against DPP homolog 1; JV4-1; Mad-related protein 1; SMAD family

member 1; SMAD 1; Smad1; hSMAD1; BSP-1; SMAD1; BSP1; MADH1; MADR1;

Isotype Rabbit IgG Host **Rabbit** Calculated MW 52260 Da

# **Smad1 Antibody - Additional Information**

Purification **Affinity-chromatography** 

**Immunogen** A synthesized peptide derived from human

Smad1

Description 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;

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline,

> pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

## **Smad1 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: <a

href="http://www.uniprot.org/citations/9335504" target="\_blank">9335504</a>). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRIs) and associates with SMAD4 to form a heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed: <a

href="http://www.uniprot.org/citations/33667543" target="\_blank">33667543</a>). In turn, the



hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:<a href="http://www.uniprot.org/citations/33667543" target="\_blank">33667543</a>). 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**

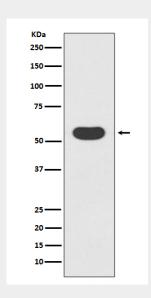
Ubiquitous. Highest expression seen in the heart and skeletal muscle

### **Smad1 Antibody - Protocols**

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

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

# Smad1 Antibody - Images



Western blot analysis of Smad1 expression in 293T cell lysate.