

**Anti-SMAD1/SMAD5 Picoband Antibody**  
Catalog # ABO10105**Specification****Anti-SMAD1/SMAD5 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q15797</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for SMAD1/SMAD5 detection. Tested with WB in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-SMAD1/SMAD5 Picoband 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

**Application Details**

Western blot, 0.1-0.5 µg/ml

**Subcellular Localization**

Cytoplasm.

**Tissue Specificity**

Ubiquitous. Highest expression seen in the heart and skeletal muscle.

**Contents**

Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence of human SMAD1/SMAD5 (KRLLGWKQGDEEEKWAEKAVDALVKLKKKKGAMEELEK).

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

At -20°C; for one year. After reconstitution, at 4°C; for one month. It can also be aliquotted and stored frozen at -20°C; for a

**longer time. Avoid repeated freezing and thawing.**

## **Anti-SMAD1/SMAD5 Picoband 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 (BMPRI) 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

## **Anti-SMAD1/SMAD5 Picoband 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](#)

## **Anti-SMAD1/SMAD5 Picoband Antibody - Images**