

# Smad1 Antibody

Rabbit mAb

Catalog # AP90872

## Product Information

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<b>Application</b>	WB, IHC, IF, FC, ICC, IHF
<b>Primary Accession</b>	<a href="#">Q15797</a>
<b>Reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	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;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	52260

## Additional Information

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<b>Dilution</b>	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:50
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human Smad1
<b>Description</b>	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;
<b>Storage Condition and Buffer</b>	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.

## Protein Information

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<b>Name</b>	SMAD1 ( <a href="#">HGNC:6767</a> )
<b>Synonyms</b>	BSP1, MADH1, MADR1
<b>Function</b>	Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis (PubMed: <a href="#">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="#">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="#">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

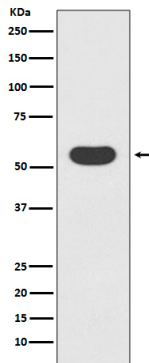
Cytoplasm. Nucleus Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4 (PubMed:15647271). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15647271). Exported from the nucleus to the cytoplasm when dephosphorylated (By similarity) {ECO:0000250|UniProtKB:P70340,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

### Tissue Location

Ubiquitous. Highest expression seen in the heart and skeletal muscle

## Images

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

Image not found : 202311/AP90872-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human colon, using Smad1 Antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.