

Smad1 Antibody

Rabbit mAb Catalog # AP90872

Specification

Smad1 Antibody - Product Information

Application WB, IHC, FC, ICC

Primary Accession Q15797
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

Dilution WB~~1:1000

IHC~~1:100~500 FC~~1:10~50

ICC~~N/A

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:9335504). 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: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

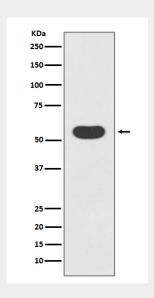
Ubiquitous. Highest expression seen in the heart and skeletal muscle

Smad1 Antibody - Protocols

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

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

Smad1 Antibody - Images



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