

Smad1 Antibody

Rabbit mAb

Catalog # AP90872

Product Information

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|--------------------------|--|
| Application | WB, IHC, IF, FC, ICC, IHF |
| Primary Accession | Q15797 |
| Reactivity | Human |
| 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 |

Additional Information

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| Dilution | WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:50 |
| 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. |

Protein Information

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| 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 (BMPRIIs) 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).

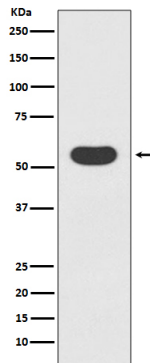
Cellular Location

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

Images



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

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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'.