Rabbit anti-Human, Mouse Smad1 Polyclonal Antibody | anti-Smad1 antibody

Smad1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322429	**Rabbit**	**Human, Mouse**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

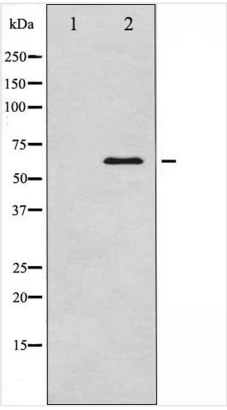
PRODUCT SYNONYMS

Smad1; Polyclonal Antibody; Smad1 Antibody; BSP-1; BSP1; HsMAD1; JV4-1; JV41; MAD homolog 1; MAD mothers against decapentaplegic homolog 1; Mad related protein 1; Mad-related protein 1; MADH1; MADR1; Mothers against decapentaplegic homolog 1; Mothers against DPP homolog 1; SMA-AND MAD-RELATED PROTEIN 1; SMAD 1; SMAD family member 1; SMAD mothers against DPP homolog 1; SMAD1_HUMAN; TGF beta signaling protein 1; Transforming growth factor-beta-signaling protein 1; anti-Smad1 antibody

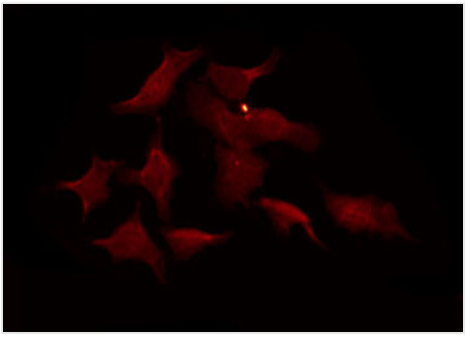
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Smad1 antibody detects endogenous levels of total Smad1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	465
Applicable Applications for anti-Smad1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Smad1
Subcellular Location	Cytoplasm. Nucleus. Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4. Co-localizes with LEMD3 at the nucleus inner membrane.
Tissue Specificity	Ubiquitous. Highest expression seen in the heart and skeletal muscle.
Predicted Cross Reactivity	**Bovine, Sheep, Rabbit, Chicken, Xenopus**
Similarity	Bovine (100%), Sheep (100%), Rabbit (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

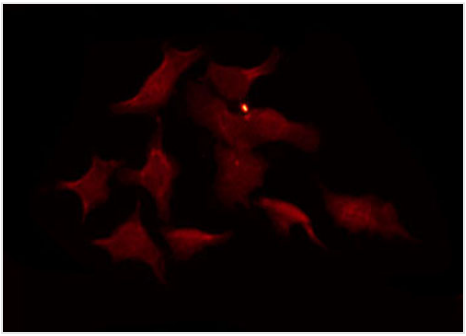
IMAGES



WB (Western Blot)
Western blot analysis of Smad1 expression in 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA322429 staining MCF-7 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IF (Immunofluorescence)
AAA322429 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-Smad1 antibody	Description: The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. Function: 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. May act synergistically with SMAD4 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression. Subunit Structure: Found in a complex with SMAD4 and YY1. Interacts with HGS, NANOG and ZCCHC12 (By similarity). Upon C-terminus phosphorylation: forms trimers with another SMAD1 and the co-SMAD SMAD4. Interacts with PEBP2-alpha subunit, CREB-binding protein (CBP), p300, SMURF1, SMURF2, USP15 and HOXC8. Associates with ZNF423 or ZNF521 in response to BMP2 leading to activate transcription of BMP target genes. Interacts with SKOR1. Interacts (via MH2 domain) with LEMD3. Binding to LEMD3 results in at least a partial reduction of receptor-mediated phosphorylation. Forms a ternary complex with PSMB4 and OAZ1 before PSMB4 is incorporated into the 20S proteasome. Found in a macromolecular complex with FAM83G. Interacts (via MH2 domain) with FAM83G (via MH2 domain); in a SMAD4-independent manner. Interacts with ZC3H3 (By similarity). Interacts with TMEM119 (By similarity). Interacts (via MH1 and MH2 domains) with ZNF8 (By similarity). Interacts with RANBP3L; the interaction increases when SMAD1 is not phosphorylated and mediates SMAD1 nuclear export (PubMed:25755279). Post-translational Modifications: Phosphorylation of the C-terminal SVS motif by BMP type 1 receptor kinase activates SMAD1 by promoting dissociation from the receptor and trimerization with SMAD4. Ubiquitinated by SMAD-specific E3 ubiquitin ligase SMURF1, leading to its degradation. Monoubiquitinated, leading to prevent DNA-binding. Deubiquitination by USP15 alleviates inhibition and promotes activation of TGF-beta target genes. Dephosphorylation, probably by PPM1A, induces its export from the nucleus to the cytoplasm (By similarity). Similarity: The MH2 domain mediates phosphorylation-dependent trimerization through L3 loop binding of phosphoserines in the adjacent subunit. Belongs to the dwarfin/SMAD family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	51173727
NCBI GeneID	4086
NCBI Accession #	NP_001003688.1
NCBI GenBank Nucleotide #	NM_001003688.1
UniProt Accession #	Q15797; Q16636; Q9UFT8; A8KAJ0; D3DNZ9
Molecular Weight	Observed: 60 kDa Predicted: 53 kDa
NCBI Official Full Name	mothers against decapentaplegic homolog 1
NCBI Official Synonym Full Names	SMAD family member 1
NCBI Official Symbol	SMAD1
NCBI Official Synonym Symbols	BSP1; JV41; BSP-1; JV4-1; MADH1; MADR1
NCBI Protein Information	mothers against decapentaplegic homolog 1
UniProt Protein Name	Mothers against decapentaplegic homolog 1
UniProt Gene Name	**SMAD1**
UniProt Synonym Gene Names	BSP1; MADH1; MADR1; MAD homolog 1; Mothers against DPP homolog 1; SMAD 1; Smad1; hSMAD1; BSP-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://www.aaabiotech.com/polyclonal/smad1-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/322429