

DATASHEET

SMAD1 Rabbit Polyclonal Antibody

CAT. NO. APA07229

KEY FEATURES

Target	SMAD1	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Chicken, Zebrafish	Clonality	Polyclonal
Applications	WB, IHC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at -20°C

BACKGROUND

Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis. 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. In turn, the hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network. 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.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

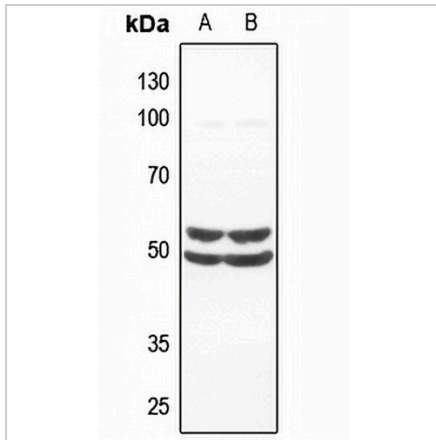
Description	Rabbit polyclonal antibody to SMAD1
Specificity	Recognizes endogenous levels of SMAD1 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human SMAD1. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 52 kD; Observed: 52; 48 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	SMAD1; BSP1; MADH1; MADR1; 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; SMAD5; MADH5; Mothers against decapentaplegic homolog 5; MAD homolog 5; Mothers against DPP homolog 5; JV5-1; SMAD family member 5; SMAD 5; Smad5; hSmad5; SMAD9; MADH6; MADH9; Mothers against decapentaplegic homolog 9; MAD homolog 9; Mothers against DPP homolog 9; Madh6; SMAD family member 9; SMAD 9; Smad9
Gene Symbol	SMAD1; SMAD5; SMAD9
Entrez Gene	4086; 4090; 4093(Human); 17125; 17129; 55994(Mouse); 59328; 85435(Rat)
SwissProt	Q15797; Q99717; O15198(Human); P70340; P97454; Q9JIW5(Mouse); P97588; Q9R1V3; O54835(Rat)

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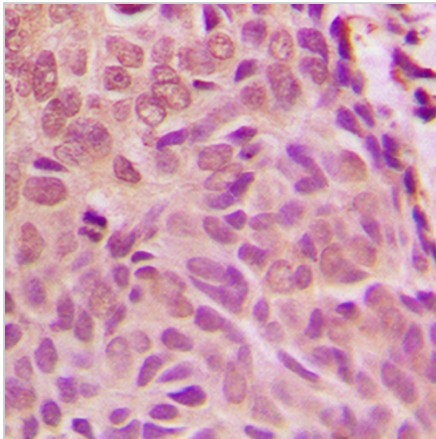
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DATA



Western blot analysis of SMAD1 expression in A375 (A), H460 (B) whole cell lysates. (Predicted band size: 52 kD; Observed band size: 52; 48 kD)



Immunohistochemical analysis of SMAD1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.