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Anti-SMAD1 (pS187) Antibody

Rabbit polyclonal antibody to SMAD1 (pS187)
Catalog # AP59613

Specification

Anti-SMAD1 (pS187) Antibody - Product Information

Application	**WB**
Primary Accession	Q15797
Other Accession	P70340
Reactivity	**Human, Mouse, Rat, Chicken, SARS**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**52260**

Anti-SMAD1 (pS187) Antibody - Additional Information

Gene ID 4086

Other Names
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

Target/Specificity
Recognizes endogenous levels of SMAD1 (pS187) protein.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IP (1/10 - 1/100)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-SMAD1 (pS187) 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}

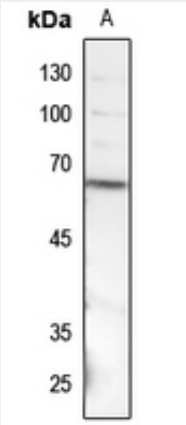
Tissue Location
Ubiquitous. Highest expression seen in the heart and skeletal muscle

Anti-SMAD1 (pS187) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SMAD1 (pS187) Antibody - Images



Western blot analysis of SMAD1 (pS187) expression in A375 (A) whole cell lysates.

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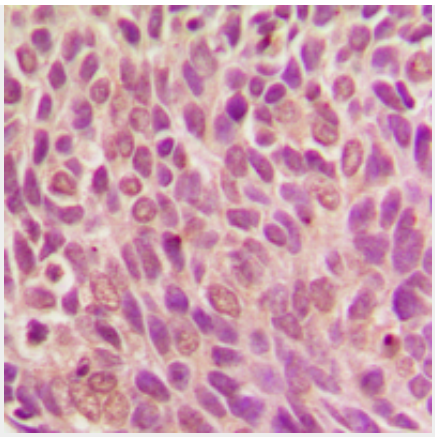

Immunohistochemical analysis of SMAD1 (pS187) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and 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.

Anti-SMAD1 (pS187) Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human SMAD1. The exact sequence is proprietary.