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SMAD1 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI11444

Specification

SMAD1 antibody - N-terminal region - Product Information

Application	**WB, IHC**
Primary Accession	Q99717
Other Accession	NM_005900, NP_005891
Reactivity	**Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Horse, Bovine, Dog**
Predicted	**Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Horse, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**52kDa KDa**

SMAD1 antibody - N-terminal region - Additional Information

Gene ID 4090

Alias Symbol **BSP1, JV4-1, JV41, MADH1, MADR1, BSP-1**

Other Names
Mothers against decapentaplegic homolog 5, MAD homolog 5, Mothers against DPP homolog 5, JV5-1, SMAD family member 5, SMAD 5, Smad5, hSmad5, SMAD5, MADH5

Target/Specificity
This antibody reacts with SMAD1 + SMAD5 and to a lesser extent, SMAD8.

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 100 ul of distilled water. Final anti-SMAD1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions
SMAD1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

SMAD1 antibody - N-terminal region - Protein Information

Name SMAD5

Synonyms MADH5

Function
Transcriptional regulator that plays a role in various cellular processes including embryonic

development, cell differentiation, angiogenesis and tissue homeostasis (PubMed:12064918, PubMed:16516194). 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:9442019). In turn, the hetero-trimeric complex recognizes cis- regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:33510867). Non-phosphorylated SMAD5 has a cytoplasmic role in energy metabolism regulation by promoting mitochondrial respiration and glycolysis in response to cytoplasmic pH changes (PubMed:28675158). Mechanistically, interacts with hexokinase 1/HK1 and thereby accelerates glycolysis (PubMed:28675158).

Cellular Location
Cytoplasm. Nucleus Mitochondrion. Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4

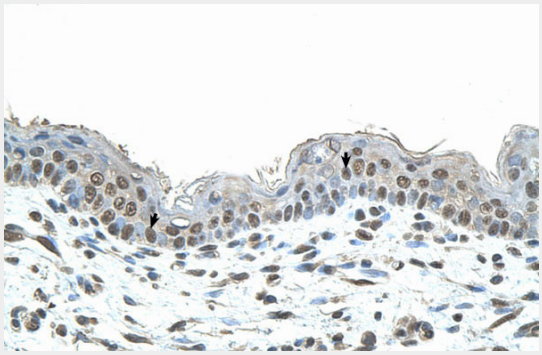
Tissue Location
Ubiquitous.

SMAD1 antibody - N-terminal region - 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

SMAD1 antibody - N-terminal region - Images



Immunohistochemistry with Human Skin lysate tissue

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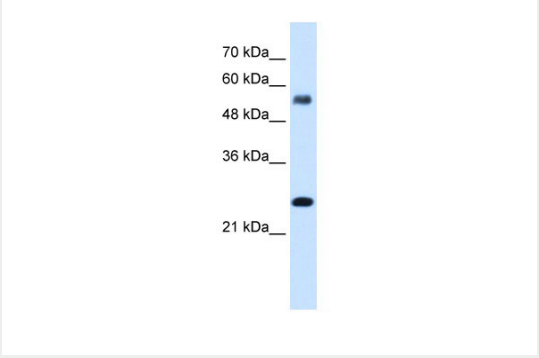

SMAD1 antibody - N-terminal region (AI11444) validated by WB using Transfected 293T cell lysate
at 2.5ug/ul.

SMAD1 antibody - N-terminal region - References

Jadlowiec,J.A., (2006) J. Biol. Chem. 281 (9), 5341-5347Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.