

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

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**SMAD1 antibody - N-terminal region - Product Information**

Application	IHC, WB
Primary Accession	<a href="#">O99717</a>
Other Accession	<a href="#">NM_005900</a> , <a href="#">NP_005891</a>
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:<a href="http://www.uniprot.org/citations/12064918" target="\_blank">12064918</a>, PubMed:<a href="http://www.uniprot.org/citations/16516194" target="\_blank">16516194</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/9442019" target="\_blank">9442019</a>). In turn, the hetero-trimeric complex recognizes cis- regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:<a href="http://www.uniprot.org/citations/33510867" target="\_blank">33510867</a>). Non-phosphorylated SMAD5 has a cytoplasmic role in energy metabolism regulation by promoting mitochondrial respiration and glycolysis in response to cytoplasmic pH changes (PubMed:<a href="http://www.uniprot.org/citations/28675158" target="\_blank">28675158</a>). Mechanistically, interacts with hexokinase 1/HK1 and thereby accelerates glycolysis (PubMed:<a href="http://www.uniprot.org/citations/28675158" target="\_blank">28675158</a>).

#### Cellular Location

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

#### Tissue Location

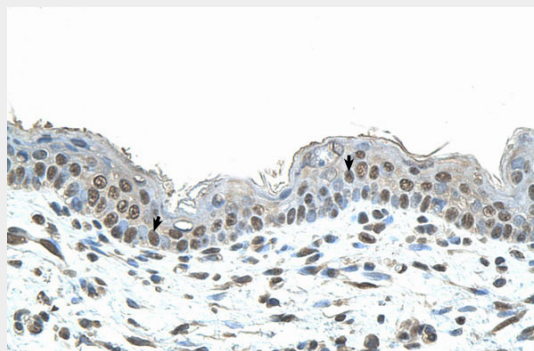
Ubiquitous.

#### SMAD1 antibody - N-terminal region - Protocols

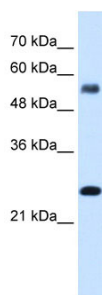
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### SMAD1 antibody - N-terminal region - Images



Immunohistochemistry with Human Skin lysate tissue



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), 5341-5347  
Reconstitution 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.