

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

SMAD1 antibody - N-terminal region - Product Information

Application	WB, IHC
Primary Accession	O99717
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 ([HGNC:6771](#))**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 (BMPRI) 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

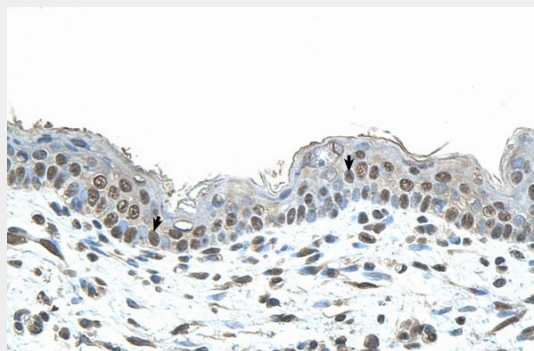
Ubiquitous.

SMAD1 antibody - N-terminal region - Protocols

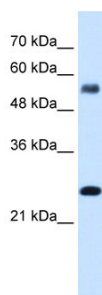
Provided below are standard protocols that you may find useful for product applications.

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

SMAD1 antibody - N-terminal region - Images



Immunohistochemistry with Human Skin lysate tissue



SMAD1 antibody - N-terminal region (A111444) 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.