

Smad5 Polyclonal Antibody
Catalog # AP73270**Specification**

Smad5 Polyclonal Antibody - Product Information

Application	WB, IHC-P
Primary Accession	Q99717
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal

Smad5 Polyclonal Antibody - Additional Information**Gene ID** 4090**Other Names**

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

Dilution

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/40000. Not yet tested in other applications.

IHC-P~~N/A

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

Smad5 Polyclonal Antibody - 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 (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

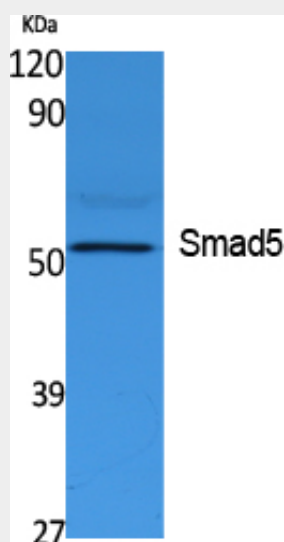
Ubiquitous.

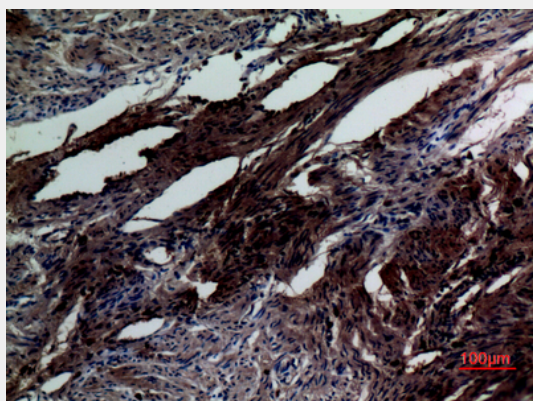
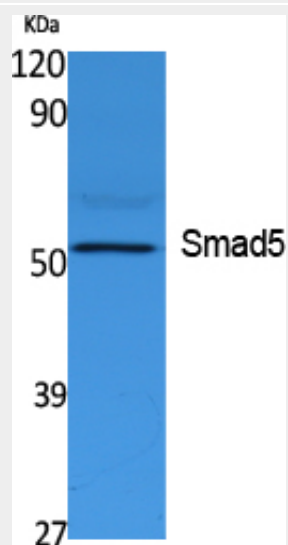
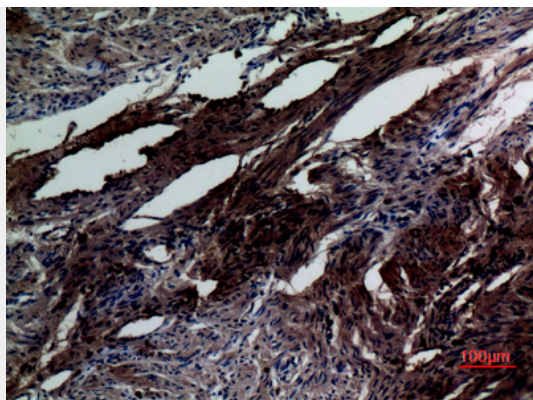
Smad5 Polyclonal Antibody - Protocols

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

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

Smad5 Polyclonal Antibody - Images





Smad5 Polyclonal Antibody - Background

Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD5 is a receptor-regulated SMAD (R-SMAD).