

SMAD5 antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI10301**Specification**

SMAD5 antibody - middle region - Product Information

Application	WB
Primary Accession	O99717
Other Accession	NM_001001420 , NP_001001420
Reactivity	Human, Mouse, Rat, Zebrafish, Pig, Sheep, Horse, Bovine, Dog
Predicted	Human, Mouse, Rat, Zebrafish, Chicken, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51kDa KDa

SMAD5 antibody - middle region - Additional Information**Gene ID** 4090**Alias Symbol** **DWFC, JV5-1, MADH5****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

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-SMAD5 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

SMAD5 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

SMAD5 antibody - middle 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

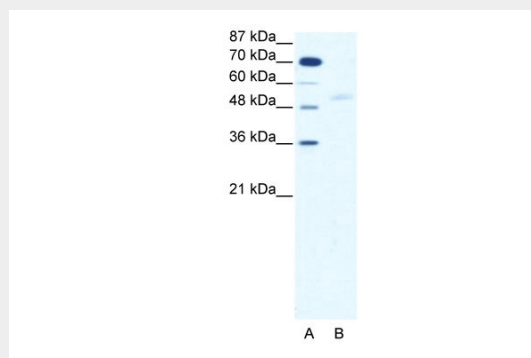
Ubiquitous.

SMAD5 antibody - middle 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](#)

SMAD5 antibody - middle region - Images



WB Suggested Anti-SMAD5 Antibody

Titration: 2.5 µg/ml

Positive Control: HepG2 Whole Cell

SMAD5 antibody - middle region - References

Langenfeld, E.M., et al., (2006) Oncogene 25 (5), 685-692
Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent

freeze-thaw cycles.