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SMAD2 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI11445

Specification

SMAD2 antibody - N-terminal region - Product Information

Application	**WB**
Primary Accession	Q15796
Other Accession	NM_005901, NP_005892
Reactivity	**Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Sheep, Horse, Bovine, Dog**
Predicted	**Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**51kDa KDa**

SMAD2 antibody - N-terminal region - Additional Information

Gene ID 4087

Alias Symbol	**JV18, MADH2, MADR2, JV18-1, hMAD-2, hSMAD2**

Other Names
Mothers against decapentaplegic homolog 2, MAD homolog 2, Mothers against DPP homolog 2, JV18-1, Mad-related protein 2, hMAD-2, SMAD family member 2, SMAD 2, Smad2, hSMAD2, SMAD2, MADH2, MADR2

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-SMAD2 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
SMAD2 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

SMAD2 antibody - N-terminal region - Protein Information

Name SMAD2

Synonyms MADH2, MADR2

Function
Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases.

Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD2/SMAD4 complex, activates transcription. Promotes TGFB1-mediated transcription of odontoblastic differentiation genes in dental papilla cells (By similarity). Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator. May act as a tumor suppressor in colorectal carcinoma (PubMed:8752209).

Cellular Location
Cytoplasm. Nucleus. Note=Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 or with IPO7 (PubMed:9865696, PubMed:21145499). On dephosphorylation by phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm at the blastocyst and epiblast stages (By similarity). {ECO:0000250|UniProtKB:Q62432, ECO:0000269|PubMed:16751101, ECO:0000269|PubMed:19289081, ECO:0000269|PubMed:21145499, ECO:0000269|PubMed:9865696}

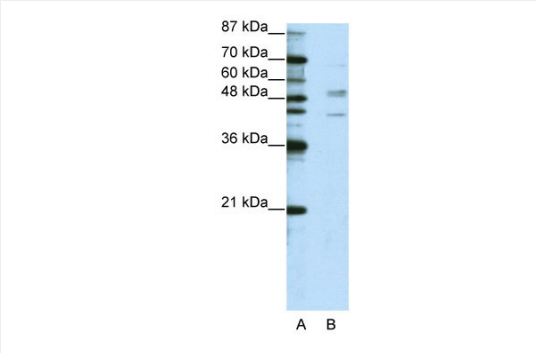
Tissue Location
Expressed at high levels in skeletal muscle, endothelial cells, heart and placenta.

SMAD2 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

SMAD2 antibody - N-terminal region - Images



WB Suggested Anti-SMAD2 Antibody Titration: 2.5µg/ml
ELISA Titer: 1:1562500
Positive Control: HepG2 cell lysate

SMAD2 antibody - N-terminal region - References

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Zheng,X., (2006) EMBO J. 25 (3), 615-627Reconstitution 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.