

# SMAD2 antibody - N-terminal region

Rabbit Polyclonal Antibody

Catalog # AI11445

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">Q15796</a>
<b>Other Accession</b>	<a href="#">NM_005901</a> , <a href="#">NP_005892</a>
<b>Reactivity</b>	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Horse, Bovine, Sheep
<b>Predicted</b>	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	52306

## Additional Information

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<b>Gene ID</b>	4087
<b>Alias Symbol</b>	JV18, MADH2, MADR2, JV18-1, hMAD-2, hSMAD2
<b>Other Names</b>	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
<b>Format</b>	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
<b>Reconstitution &amp; Storage</b>	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.
<b>Precautions</b>	SMAD2 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	SMAD2 ( <a href="#">HGNC:6768</a> )
<b>Synonyms</b>	MADH2, MADR2
<b>Function</b>	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 TGF $\beta$ 1-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:21145499, PubMed:9865696). 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}

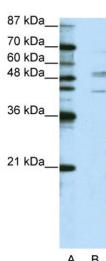
#### Tissue Location

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

## References

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

## Images



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.