

**SMAD2+3 Antibody (aa1-50)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS16681****Specification**

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**SMAD2+3 Antibody (aa1-50) - Product Information**

Application	IHC, WB
Primary Accession	<a href="#">Q15796</a>
Other Accession	<a href="#">P84022</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	52306

**SMAD2+3 Antibody (aa1-50) - Additional Information****Gene ID** 4087**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

**Target/Specificity**

Smad2/3 Antibody detects endogenous levels of total Smad2/3 protein.

**Reconstitution & Storage**

PBS (without Mg<sup>2+</sup>, Ca<sup>2+</sup>), pH 7.4, 150 mM sodium chloride, 0.02% sodium azide, 50% glycerol. Store at -20°C for up to one year.

**Precautions**

SMAD2+3 Antibody (aa1-50) is for research use only and not for use in diagnostic or therapeutic procedures.

**SMAD2+3 Antibody (aa1-50) - 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 TGF-beta-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:<a href="http://www.uniprot.org/citations/8752209" target="\_blank">8752209</a>).

#### **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.

#### **Volume**

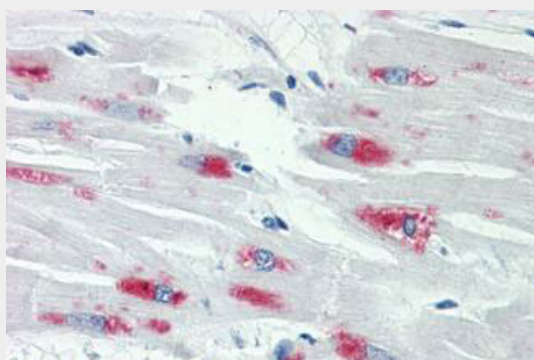
50 µl

### **SMAD2+3 Antibody (aa1-50) - Protocols**

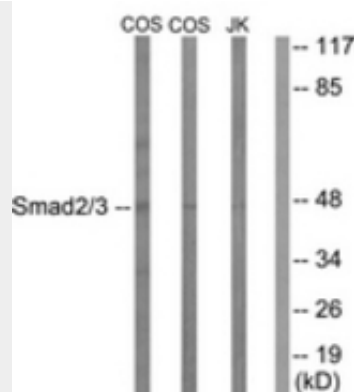
Provided below are standard protocols that you may find useful for product applications.

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

### **SMAD2+3 Antibody (aa1-50) - Images**



Anti-SMAD2+3 antibody IHC staining of human heart.



Western blot of extracts from COS7/Jurkat cells, treated with UV 15', using Smad2/3 Antibody.