

**(Mouse) Smad2 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21006a**

**Specification**

**(Mouse) Smad2 Antibody (Center) - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q62432</a>
Other Accession	<a href="#">P84025</a> , <a href="#">P84024</a> , <a href="#">Q8BUN5</a> , <a href="#">P84022</a> , <a href="#">P84023</a> , <a href="#">Q70436</a> , <a href="#">Q15796</a> , <a href="#">Q1W668</a>
Reactivity	Human, Mouse, Rat
Predicted	Bovine, Chicken, Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	52266

**(Mouse) Smad2 Antibody (Center) - Additional Information**

Gene ID 17126

**Other Names**

Mothers against decapentaplegic homolog 2, MAD homolog 2, Mothers against DPP homolog 2, Mad-related protein 2, mMAD2, SMAD family member 2, SMAD 2, Smad2, Smad2, Madh2, Madr2

**Target/Specificity**

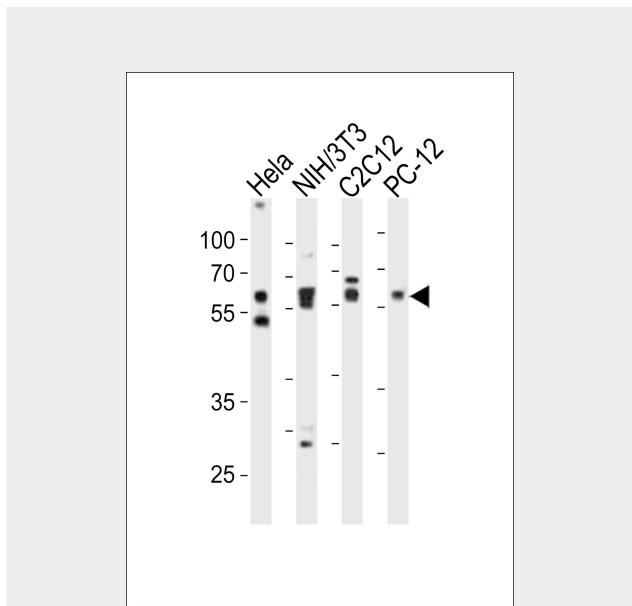
This mouse Smad2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 198-232 amino acids from the Central region of mouse Smad2.

**Dilution**

WB~~1:500-1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.



Western blot analysis of lysates from HeLa, mouse NIH3T3, mouse C2C12, rat PC-12 cell line (from left to right), using Smad2 Antibody (Center)(Cat. #AP21006a). AP21006a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

**(Mouse) Smad2 Antibody (Center) - Background**

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. May act as a tumor suppressor in colorectal carcinoma. Positively regulates PDK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator (By similarity).

**(Mouse) Smad2 Antibody (Center) -**

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

(Mouse) Smad2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**References**

Baker J.C.,et al.Genes Dev. 10:1880-1889(1996).  
Devereux T.R.,et al.Carcinogenesis 18:1751-1755(1997).  
Bernard D.J.,et al.Mol. Endocrinol. 18:606-623(2004).  
Carninci P.,et al.Science 309:1559-1563(2005).  
Weinstein M.,et al.Cytokine Growth Factor Rev. 11:49-58(2000).

**(Mouse) Smad2 Antibody (Center) - 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. May act as a tumor suppressor in colorectal carcinoma. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator (By similarity).

**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 (PubMed:21145499). On dephosphorylation by phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (By similarity) 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 (PubMed:21145499) {ECO:0000250|UniProtKB:Q15796, ECO:0000269|PubMed:21145499}

**(Mouse) Smad2 Antibody (Center) - 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](#)