

**SMAD6 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1449a****Specification**

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**SMAD6 Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, E                  |
| Primary Accession | <a href="#">O43541</a> |
| Reactivity        | Human                  |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Isotype           | IgG1                   |
| Calculated MW     | 53kDa KDa              |

**Description**

Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit selectively BMP (bone morphogenetic proteins) signaling by competing with the co-SMAD SMAD4 for receptor-activated SMAD1. SMAD6 is an inhibitory SMAD (I-SMAD) or antagonistic SMAD. Binds to regulatory elements in target promoter regions. Tissue specificity: Ubiquitous in various organs, with higher levels in lung. Isoform B is up-regulated in diseased heart tissue.

**Immunogen**

Purified recombinant fragment of human SMAD6 expressed in E. Coli. <br /> <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**SMAD6 Antibody - Additional Information**

**Gene ID** 4091

**Other Names**

Mothers against decapentaplegic homolog 6, MAD homolog 6, Mothers against DPP homolog 6, SMAD family member 6, SMAD 6, Smad6, hSMAD6, SMAD6, MADH6

**Dilution**

WB~~1/500 - 1/2000

E~~N/A

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SMAD6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**SMAD6 Antibody - Protein Information**

**Name** SMAD6**Synonyms** MADH6**Function**

Transforming growth factor-beta superfamily receptors signaling occurs through the Smad family of intracellular mediators. SMAD6 is an inhibitory Smad (i-Smad) that negatively regulates signaling downstream of type I transforming growth factor-beta (PubMed:<a href="http://www.uniprot.org/citations/10647776" target="\_blank">10647776</a>, PubMed:<a href="http://www.uniprot.org/citations/10708948" target="\_blank">10708948</a>, PubMed:<a href="http://www.uniprot.org/citations/10708949" target="\_blank">10708949</a>, PubMed:<a href="http://www.uniprot.org/citations/16951688" target="\_blank">16951688</a>, PubMed:<a href="http://www.uniprot.org/citations/22275001" target="\_blank">22275001</a>, PubMed:<a href="http://www.uniprot.org/citations/30848080" target="\_blank">30848080</a>, PubMed:<a href="http://www.uniprot.org/citations/9436979" target="\_blank">9436979</a>, PubMed:<a href="http://www.uniprot.org/citations/9759503" target="\_blank">9759503</a>). Acts as a mediator of TGF-beta and BMP anti-inflammatory activities. Suppresses IL1R-TLR signaling through its direct interaction with PEL1, preventing NF-kappa-B activation, nuclear transport and NF-kappa-B- mediated expression of pro-inflammatory genes (PubMed:<a href="http://www.uniprot.org/citations/16951688" target="\_blank">16951688</a>). Blocks the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor- activated SMAD1-binding (PubMed:<a href="http://www.uniprot.org/citations/30848080" target="\_blank">30848080</a>, PubMed:<a href="http://www.uniprot.org/citations/9436979" target="\_blank">9436979</a>). Binds to regulatory elements in target promoter regions (PubMed:<a href="http://www.uniprot.org/citations/16491121" target="\_blank">16491121</a>).

**Cellular Location**

Nucleus.

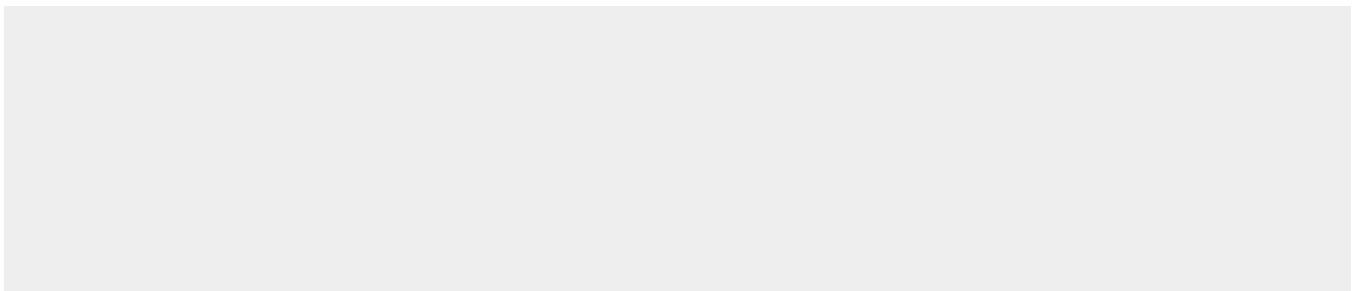
**Tissue Location**

[Isoform B]: Expressed in the brain, heart, ovary, peripheral blood leukocytes, small intestine, spleen, thymus, bone marrow, fetal liver and lymph nodes.

**SMAD6 Antibody - 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](#)

**SMAD6 Antibody - Images**

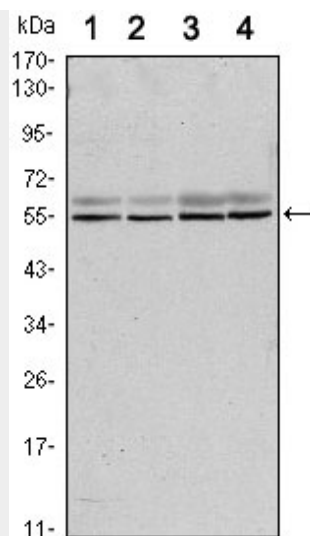


Figure 1: Western blot analysis using SMAD6 mouse mAb against A431 (1), A431 (2), HeLa (3) and Jurkat (4) cell lysate.

#### **SMAD6 Antibody - References**

1. J Biol Chem. 2006 Feb 10;281(6):3569-76. 2. Nat Immunol. 2006 Oct;7(10):1057-65. 3. J Med Genet. 2009 May;46(5):331-7.