

SMAD6 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1449a

Specification

SMAD6 Antibody - Product Information

Application	WB
Primary Accession	O43541
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.

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

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:10647776, PubMed:10708948, PubMed:10708949, PubMed:16951688, PubMed:22275001, PubMed:30848080, PubMed:9436979, PubMed:9759503). 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:16951688). Blocks the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor- activated SMAD1-binding (PubMed:30848080, PubMed:9436979). Binds to regulatory elements in target promoter regions (PubMed:16491121).

Cellular Location

Nucleus.

Tissue Location

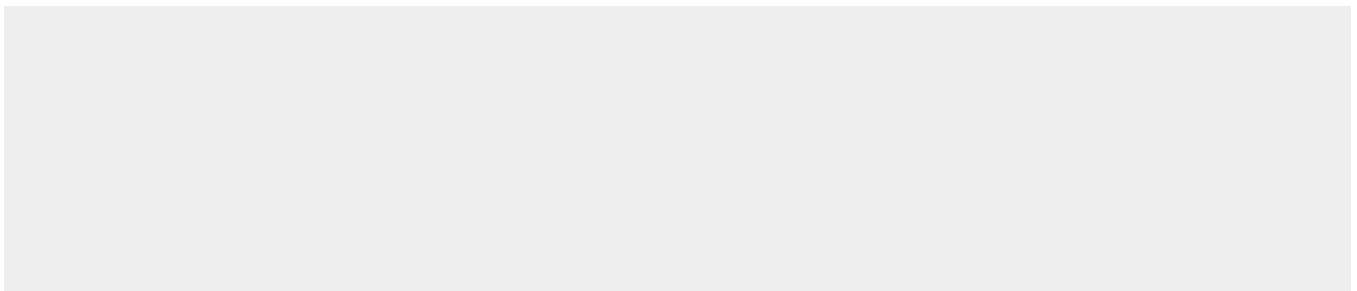
[Isoform B]: Expressed in the brain, heart, ovary, peripheral blood leukocytes, small intestine, spleen, thymus, bone marrow, fetal liver and lymph nodes.

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



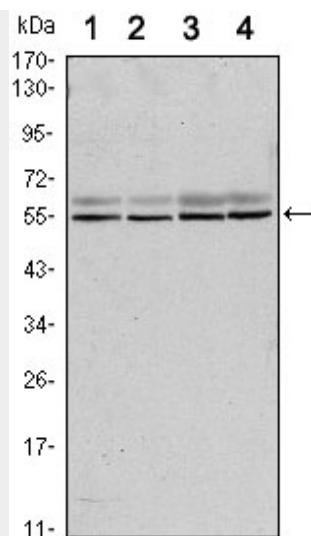


Figure 1: Western blot analysis using SMAD6 mouse mAb against A431 (1), A431 (2), HeLa (3) and Jurkat (4) cell lysate.

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.