10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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:9436979, PubMed:16951688, PubMed:22275001, PubMed:9759503, PubMed:10647776, PubMed:10708948, PubMed:10708949, PubMed:30848080). 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:9436979, PubMed:30848080). 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 Cytomety
- Cell Culture

SMAD6 Antibody - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

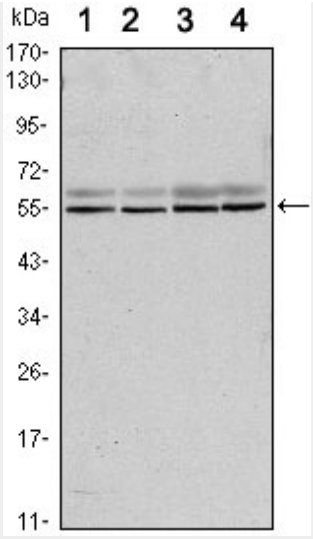


Figure 1: Western blot analysis using SMAD6 mouse mAb against A431 (1), A431 (2), Hela (3) and Jurkat (4) cell lysate.

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.