

Anti-SMAD6 Picoband Antibody
Catalog # ABO12193**Specification**

Anti-SMAD6 Picoband Antibody - Product Information

Application	WB
Primary Accession	O43541
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Mothers against decapentaplegic homolog 6(SMAD6) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SMAD6 Picoband 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

Calculated MW

53497 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Nucleus .

Tissue Specificity

Ubiquitous in various organs, with higher levels in lung. Isoform B is up-regulated in diseased heart tissue.

Protein Name

Mothers against decapentaplegic homolog 6

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human SMAD6 recombinant protein (Position: E131-D456). Human SMAD6 shares 95.3% amino acid (aa) sequence identity with mouse SMAD6.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the Smad family.

Anti-SMAD6 Picoband 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](http://www.uniprot.org/citations/9436979), PubMed: [16951688](http://www.uniprot.org/citations/16951688), PubMed: [22275001](http://www.uniprot.org/citations/22275001), PubMed: [9759503](http://www.uniprot.org/citations/9759503), PubMed: [10647776](http://www.uniprot.org/citations/10647776), PubMed: [10708948](http://www.uniprot.org/citations/10708948), PubMed: [10708949](http://www.uniprot.org/citations/10708949), PubMed: [30848080](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/16951688)). Blocks the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor-activated SMAD1-binding (PubMed: [9436979](http://www.uniprot.org/citations/9436979), PubMed: [30848080](http://www.uniprot.org/citations/30848080)). Binds to regulatory elements in target promoter regions (PubMed: [16491121](http://www.uniprot.org/citations/16491121)).

Cellular Location

Nucleus.

Tissue Location

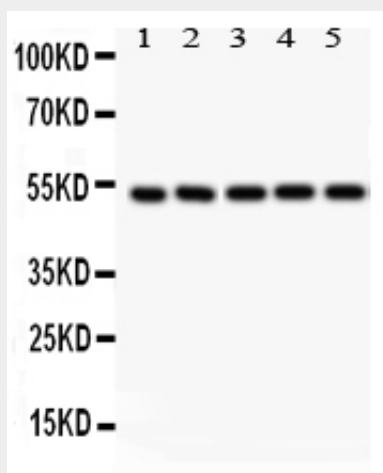
[Isoform B]: Expressed in the brain, heart, ovary, peripheral blood leukocytes, small intestine, spleen, thymus, bone marrow, fetal liver and lymph nodes.

Anti-SMAD6 Picoband 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](#)

Anti-SMAD6 Picoband Antibody - Images



Anti- SMAD6 Picoband antibody, ABO12193, Western blotting All lanes: Anti SMAD6 (ABO12193) at 0.5ug/ml
Lane 1: Rat Lung Tissue Lysate at 50ug
Lane 2: Mouse Lung Tissue Lysate at 50ug
Lane 3: Human Placenta Tissue Lysate at 50ug
Lane 4: JURKAT Whole Cell Lysate at 40ug
Lane 5: MM231 Whole Cell Lysate at 40ug
Predicted bind size: 53KD
Observed bind size: 53KD

Anti-SMAD6 Picoband Antibody - Background

Mothers against decapentaplegic homolog 6, also known as SMAD6, is a protein that in humans is encoded by the SMAD6 gene. It belongs to the SMAD family of proteins, which belongs to the TGF β superfamily of modulators. By PCR screening of a somatic cell hybrid panel and YACs, this gene was mapped to 15q22.31. And this gene acts as a mediator of TGF-beta and BMP antiinflammatory activity. It can suppress 1L 1R-TLR signaling through its direct interaction with PEL1 and prevent NF-kappa-B activation, nuclear transport and NF-kappa-B-mediated expression of proinflammatory genes. SMAD6 may play a role in blocking the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor-activated SMAD1-binding and binding to regulatory elements in target promoter regions.