

## Anti-Smad6 antibody



**Description** Rabbit polyclonal to Smad6.

Model STJ95703

**Host** Rabbit

**Reactivity** Human, Mouse

**Applications** ELISA, IHC, WB

**Immunogen** Synthesized peptide derived from human Smad6.

Immunogen Region Internal

**Gene ID** 4091

Gene Symbol SMAD6

**Dilution range** WB 1:500-1:2000IHC 1:100-1:300ELISA 1:40000

**Specificity** Smad6 Polyclonal Antibody detects endogenous levels of Smad6 protein.

**Tissue Specificity** Ubiquitous in various organs, with higher levels in lung. Isoform B is up-

regulated in diseased heart tissue.

**Purification** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

Protein Name Mothers against decapentaplegic homolog 6 MAD homolog 6 Mothers against

DPP homolog 6 SMAD family member 6 SMAD 6 Smad6 hSMAD6

Molecular Weight 62 kDa

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:6772OMIM:602931</u>

Alternative Names Mothers against decapentaplegic homolog 6 MAD homolog 6 Mothers against

DPP homolog 6 SMAD family member 6 SMAD 6 Smad6 hSMAD6

**Function** Acts as a mediator of TGF-beta and BMP antiflammatory activity. Suppresses

IL1R-TLR signaling through its direct interaction with PEL1, preventing NF-kappa-B activation, nuclear transport and NF-kappa-B-mediated expression of proinflammatory genes. May block the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor-activated SMAD1-binding. Binds to

regulatory elements in target promoter regions.

Cellular Localization Nucleus

**Post-translational** Phosphorylated by BMP type 1 receptor kinase and by PRKX.

**Modifications** Monoubiquitinated at Lys-173 by the E2/E3 hybrid ubiquitin-protein ligase

UBE2O, leading to reduced binding affinity for the activated BMP type I receptor ACVR1/ALK2, thereby enhancing BMP7 and regulating adipocyte differentiation . Ubiquitinated by WWP1 . Ubiquitinated by RNF165, promoting proteasomal degradation, leading to enhance the BMP-Smad signaling . Arginine methylation by PRMT1, which is recruited by BMPR2, initiates BMP-Induced signaling and induces dissociation from the BMPR1B receptor at the cell surface leading to derepress downstream Smad1/Smad5

signaling.

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