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SMAD6 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI16233

Product Information

Application	WB
Primary Accession	O43541
Other Accession	NM_005585, NP_005576
Reactivity	Human, Pig, Dog, Bovine
Predicted	Human, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53497

Additional Information

Gene ID	4091
Alias Symbol	HsT17432, MADH6, MADH7
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
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-SMAD6 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	SMAD6 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SMAD6 (HGNC:6772)
Synonyms	MADH6
Function	Acts as an inhibitory regulator of signaling mediated by the TGF-beta superfamily, with strong selectivity toward BMP-dependent pathways (PubMed:10647776, PubMed:10708948, PubMed:10708949, PubMed:16951688, PubMed:22275001, PubMed:30848080, PubMed:9436979, PubMed:9759503). Suppresses IL1R-TLR signaling through its direct interaction with PEL1, preventing NF-kappa-B activation, nuclear translocation 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). Associates with regulatory elements in target promoter regions (PubMed:16491121). Functions as an adapter protein that recruits ubiquitin ligases, including SMURF1 and, in some contexts, SMURF2, promoting proteasomal degradation of signaling components and transcription factors such as RUNX2, TBX6, BMPR1A and MYD88 (PubMed:16299379, PubMed:19561075, PubMed:28847510).

Cellular Location Nucleus. Cytoplasm {ECO:0000250|UniProtKB:O35182}

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

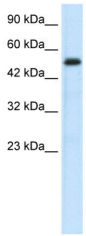
Background

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.

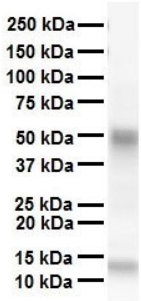
References

Riggins G.J.,et al.Nat. Genet. 13:347-349(1996).
Hata A.,et al.Genes Dev. 12:186-197(1998).
Afrakhte M.,et al.Biochem. Biophys. Res. Commun. 249:505-511(1998).
Hagiwara K.,et al.Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.
Konrad L.,et al.Submitted (NOV-2007) to the EMBL/GenBank/DDBJ databases.

Images



WB Suggested Anti-SMAD6 Antibody Titration: 0.2-1 µg/ml
Positive Control: Jurkat cell lysate
There is BioGPS gene expression data showing that SMAD6 is expressed in Jurkat



WB Suggested Anti-SMAD6 antibody Titration: 1 µg/ml
Sample Type: Human heart

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.