

Product Name: KD-Validated SMAD Family Member 1 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA00892

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 52.3kDa

Antigen Information

Gene Name	SMAD1 SMAD1; SMAD Family Member 1; MADR1; JV4-1; MADH1; Mothers Against Decapentaplegic Homolog 1; Mothers Against DPP Homolog 1; Mad-Related Protein 1; BSP-1; BSP1; MAD, Mothers Against Decapentaplegic Homolog 1 (Drosophila); Transforming Growth Factor-
Alternative Names	Beta Signaling Protein 1; Transforming Growth Factor-Beta-Signaling Protein 1; SMAD, Mothers Against DPP Homolog 1 (Drosophila); MAD, Mothers Against Decapentaplegic Homolog 1; SMAD, Mothers Against DPP Homolog 1; TGF-Beta Signaling Protein 1; MAD Homolog 1; SMAD 1; HSMAD1; Smad1; JV41
Gene ID	4086.0
SwissProt ID	Q15797

Immunogen

A synthesized peptide derived from human Smad1

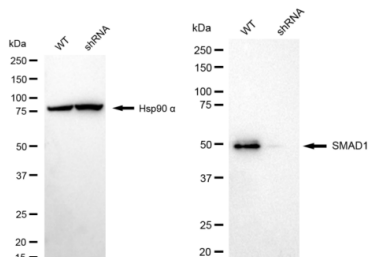
Background

The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the *Drosophila* gene 'mothers against decapentaplegic' (Mad) and the *C. elegans* gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008]

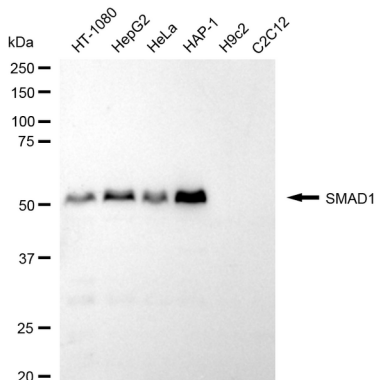
Research Area

Signal Transduction, Epigenetics and Nuclear Signaling, Stem Cells, Cancer

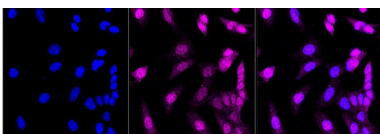
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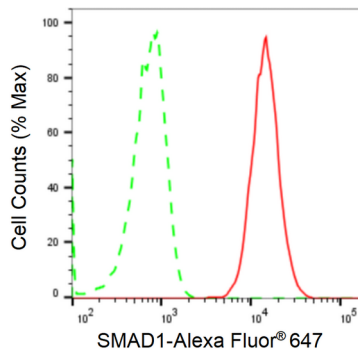
Western blotting analysis using SMAD1 antibody (KVA00892). SMAD1 expression in wild type (WT) and SMAD1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with SMAD1 antibody (KVA00892, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using SMAD1 antibody (KVA00892). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with SMAD1 antibody (KVA00892, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HAP-1 cells with SMAD1 antibody (KVA00892, 1:1,000). Nuclei were stained blue with DAPI; SMAD1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar, 20 µm.



Flow cytometric analysis of SMAD1 expression in HAP-1 cells using SMAD1 antibody (KVA00892, 1:2,000). Green, isotype control; red, SMAD1.