Product Name: KO-Validated Phospho-Smad3 (S423 + S425) Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00098
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
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; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 48.1kDa

Antigen Information

Gene Name	SMAD3
Alternative Names	SMAD3; SMAD Family Member 3; JV15-2; HsT17436; MADH3; Mothers Against Decapentaplegic Homolog 3; Mothers Against DPP Homolog 3; MAD Homolog 3; HMAD-3; HSMAD3; Mad3; MAD, Mothers Against Decapentaplegic Homolog 3 (Drosophila); SMAD, Mothers Against DPP Homolog 3 (Drosophila); MAD, Mothers Against Decapentaplegic Homolog 3; SMAD, Mothers Against DPP Homolog 3; SMA- And MAD-Related Protein 3; Mad Protein Homolog; Mad Homolog JV15-2; HSPC193; SMAD 3; LDS1C; Smad3; LDS3
Gene ID	4088.0
SwissProt ID	P84022
Immunogen	A synthesized peptide derived from human Phospho-Smad3 (S423 + S425)

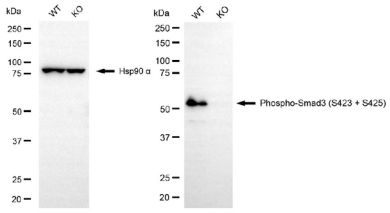
Background

The SMAD family of proteins are a group of intracellular signal transducer proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. The SMAD3 protein functions in the transforming growth factor-beta signaling pathway, and transmits signals from the cell surface to the nucleus, regulating gene activity and cell proliferation. This protein forms a complex with other SMAD proteins and binds DNA, functioning both as a transcription factor and tumor suppressor. Mutations in this gene are associated with aneurysms-osteoarthritis syndrome and Loeys-Dietz Syndrome 3. [provided by RefSeq, May 2022]

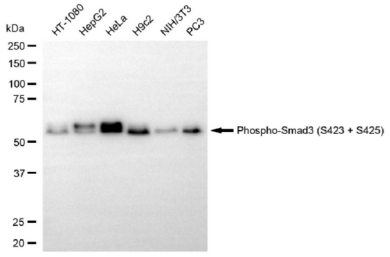
Research Area

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

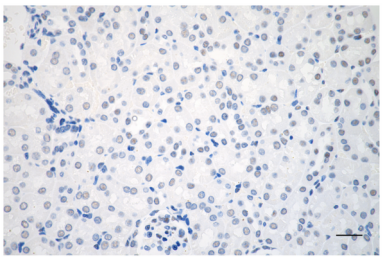
Image Data



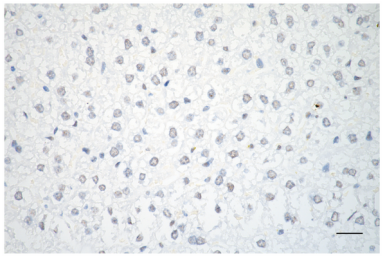
Western blotting analysis using phospho-smad3 (S423 + S425) antibody (KVAb00098). Phospho-smad3 (S423 + S425) expression in wild-type (WT) and SMAD3 knockout (KO) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with phospho-smad3 (S423 + S425) antibody (KVAb00098, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



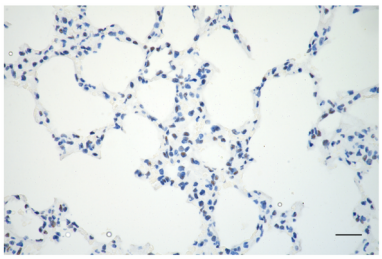
Western blotting analysis using phospho-Smad3 (S423 + S425) antibody (KVAb00098). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (APS0635, 1:10,000) respectively.



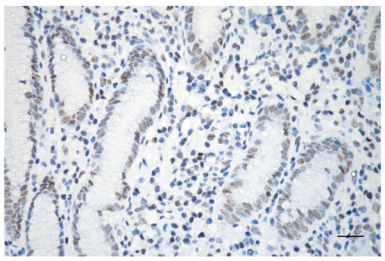
Immunohistochemistry was performed on paraffin-embedded mouse kidney using phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



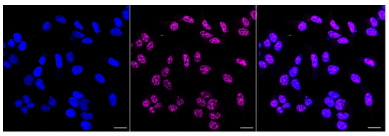
Immunohistochemistry was performed on paraffin-embedded mouse liver using phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



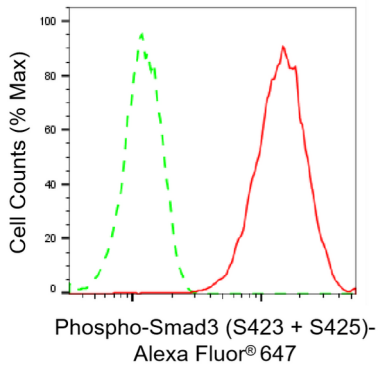
Immunohistochemistry was performed on paraffin-embedded mouse lung using phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



Immunohistochemistry was performed on paraffin-embedded human gastric carcinoma using phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



Immunocytochemical staining of HAP-1 cells with Phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:1,000). Nuclei were stained blue with DAPI; Phospho-Smad3 (S423 + S425) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μm.



Flow cytometric analysis of Phospho-Smad3 (S423 + S425) expression in HAP-1 cells using Phospho-Smad3 (S423 + S425) antibody (KVAb00098, 1:2,000). Green, isotype control; red, Phospho-Smad3 (S423 + S425).