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DKK1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5504

Product Information

Application	WB, FC, IHC-P
Primary Accession	O94907
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28672
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	22943
Antigen Region	Recombinant protein of full sequence
Other Names	Dickkopf-related protein 1, Dickkopf-1, Dkk-1, hDkk-1, SK, DKK1
Dilution	WB~~1:2000 FC~~1:25 IHC-P~~1:100~500
Target/Specificity	This DKK1 antibody is generated from a rabbit immunized with a recombinant protein of human DKK1.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DKK1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DKK1
Function	Antagonizes canonical Wnt signaling by inhibiting LRP5/6 interaction with Wnt and by forming a ternary complex with the transmembrane protein KREMEN that promotes internalization of LRP5/6 (PubMed:22000856). DKKs play an important role in vertebrate development, where they locally inhibit Wnt regulated processes such as antero-posterior axial patterning, limb development, somitogenesis and eye formation. In the adult, Dkks are implicated in bone formation and bone disease, cancer and Alzheimer disease (PubMed:17143291). Inhibits the pro-apoptotic function of KREMEN1 in a Wnt-independent manner, and has anti-apoptotic activity (By similarity).

Cellular Location	Secreted.
Tissue Location	Placenta.

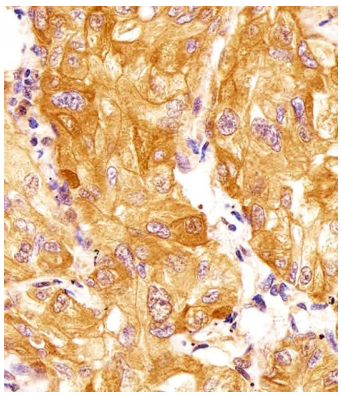
Background

Antagonizes canonical Wnt signaling by inhibiting LRP5/6 interaction with Wnt and by forming a ternary complex with the transmembrane protein KREMEN that promotes internalization of LRP5/6. DKKs play an important role in vertebrate development, where they locally inhibit Wnt regulated processes such as antero- posterior axial patterning, limb development, somitogenesis and eye formation. In the adult, Dkks are implicated in bone formation and bone disease, cancer and Alzheimer disease.

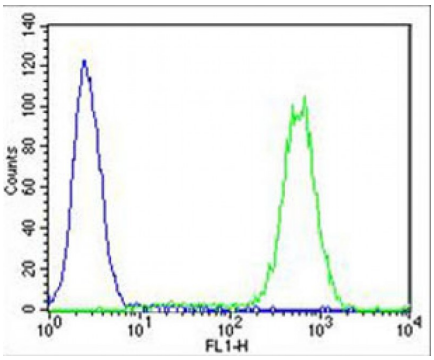
References

Fedi P.,et al.J. Biol. Chem. 274:19465-19472(1999).
Krupnik V.E.,et al.Gene 238:301-313(1999).
Tate G.,et al.Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases.
Roessler E.,et al.Cytogenet. Cell Genet. 89:220-224(2000).
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).

Images

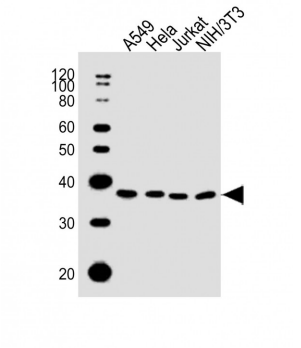


AW5504 staining DKK1 in Human lung adenocarcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing U-2 OS cells stained with AW5504 (green line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AW5504, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

All lanes : Anti-DKK1 Antibody at 1:2000 dilution Lane 1: A549 whole cell lysates Lane 2: Hela whole cell lysates Lane 3: Jurkat whole cell lysates Lane 4: NIH/3T3 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 29 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Citations

- YAP1 negatively regulates chondrocyte differentiation partly by activating the β-catenin signaling pathway.