10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DKK4 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1524a

Product Information

Application	IHC-P, WB, E
Primary Accession	Q9UBT3
Other Accession	NP_055235
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	24876
Antigen Region	1-30

Additional Information

Gene ID	27121
Other Names	Dickkopf-related protein 4, Dickkopf-4, Dkk-4, hDkk-4, Dickkopf-related protein 4 short form, DKK4
Target/Specificity	This DKK4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human DKK4.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	DKK4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DKK4
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. 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 (By similarity).
Cellular Location	Secreted.
Tissue Location	Expressed in cerebellum, T-cells, esophagus and lung

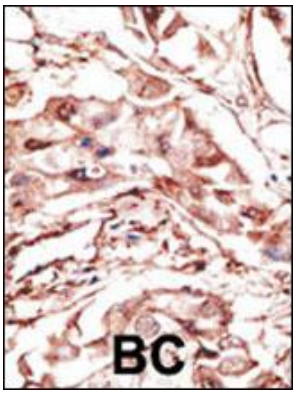
Background

DKK4, like DKK1, DKK2, and DKK3, possesses an N-terminal signal peptide and 2 conserved cysteine-rich domains, which are separated by a linker region and contain 10 cysteine residues each. The second cysteine region has a putative lipid-binding function that may facilitate WNT/DKK interactions at the plasma membrane. The linker region contains 50 to 55 amino acids in DKK1, DKK2, and DKK4, whereas in DKK3 it contains only 12 amino acids. All DKKs have several potential sites for cleavage by furin-type proteases. Northern blot analysis detected no expression of DKK4, but RT-PCR analysis detected DKK4 expression in cerebellum, T-cell, esophagus, and lung cDNA libraries. DKK4 blocks Xenopus Wnt8, Wnt3a, and Wnt2b, but not Dsh or Fz8, induction of a secondary axis in frog embryos, indicating that DKKs antagonize WNT function upstream of WNT receptors.

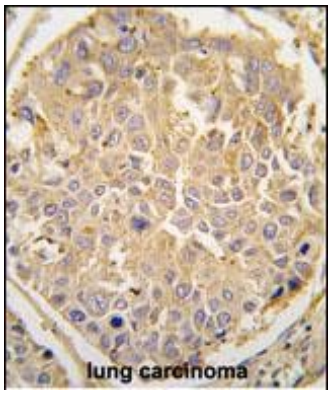
References

Krupnik, V.E., et al., Gene 238(2):301-313 (1999). Yoshida, S., et al., Cytogenet. Cell Genet. 94 (1-2), 88-89 (2001).

Images

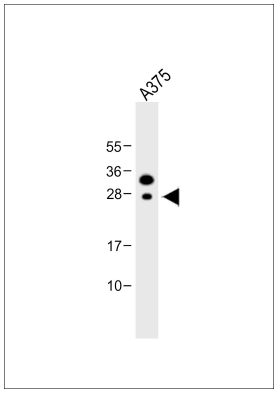


Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with DKK4 antibody (N-term) (Cat.#AP1524a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

The anti-DKK4 (N-term) (Cat. #AP1524a) is used in Western blot to detect DKK4 in A375 cell lysate.



Citations

- SRC-2-mediated coactivation of anti-tumorigenic target genes suppresses MYC-induced liver cancer.
- DICKKOPF-4 activates the noncanonical c-Jun-NH2 kinase signaling pathway while inhibiting the Wnt-canonical pathway in human renal cell carcinoma.
- Dickkopf 4 (DKK4) acts on Wnt/ -catenin pathway by influencing -catenin in hepatocellular carcinoma.
- DICKKOPF-4 and -2 genes are upregulated in human colorectal cancer.

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