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DGKB Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8127b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9Y6T7
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	90595
Antigen Region	773-804

Additional Information

Gene ID	1607
Other Names	Diacylglycerol kinase beta, DAG kinase beta, 90 kDa diacylglycerol kinase, Diglyceride kinase beta, DGK-beta, DGKB, DAGK2, KIAA0718
Target/Specificity	This DGKB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 773-804 amino acids from the C-terminal region of human DGKB.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	DGKB Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DGKB
Synonyms	DAGK2, KIAA0718
Function	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:11719522). Thereby, acts as a central switch between

	the signaling pathways activated by these second messengers with different cellular targets and opposite effects in numerous biological processes (Probable). Has a higher activity with long-chain diacylglycerols like 1,2-di-(9Z-octadecenoyl)-sn-glycerol compared to 1,2-didecanoyl-sn-glycerol (By similarity). Specifically expressed in brain, it regulates neuron-specific morphological changes including neurite branching and neurite spine formation (By similarity).
Cellular Location	Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q6NS52}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q6NS52}. Cell membrane; Peripheral membrane protein. Cytoplasm Note=Translocation to the plasma membrane is induced by phorbol esters
Tissue Location	[Isoform 1]: Specifically expressed in brain but also detected in uterus (PubMed:11719522). In adult brain, expressed in the amygdala, caudate nucleus, and hippocampus (PubMed:11719522)

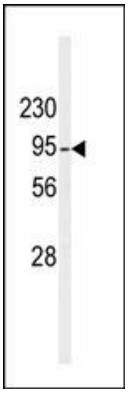
Background

Diacylglycerol (DAG) is an allosteric activator of protein kinase C. DAG also participates in regulating RAS and RHO family proteins by activating the guanine nucleotide exchange factors VAV and RASGRP1. DAG is also involved in the synthesis of phospholipids and triacylglycerols. Tight regulation of DAG levels is achieved via DAG kinases (DGKs), which remove DAG by phosphorylate it to phosphatidic acid. Several mammalian isozymes of DAGK have been identified

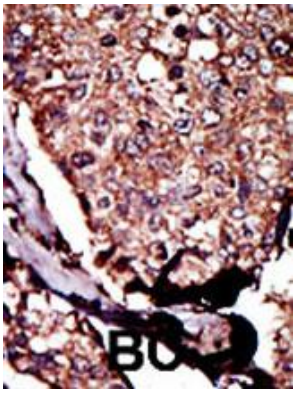
References

Caricasole, A., et al., J. Biol. Chem. 277(7):4790-4796 (2002).

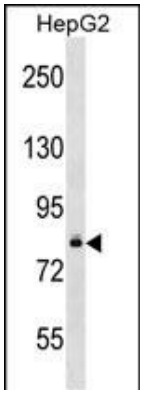
Images



Western blot analysis of anti-hDGKB-T787 Pab (Cat. #AP8127b) in mouse liver tissue lysate. hDGKB-T787(arrow) was detected using the purified Pab.



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.



DGKB Antibody (T787) (Cat. #AP8127b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the DGKB antibody detected the DGKB protein (arrow).

Citations

- Isolation of mouse pancreatic alpha, beta, duct and acinar populations with cell surface markers.