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DGKD Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8126b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q16760
Reactivity	Human
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3865
Calculated MW	134525
Antigen Region	1061-1091

Additional Information

Gene ID	8527
Other Names	Diacylglycerol kinase delta, DAG kinase delta, 130 kDa diacylglycerol kinase, Diglyceride kinase delta, DGK-delta, DGKD, KIAA0145
Target/Specificity	This DGKD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1061-1091 amino acids from the C-terminal region of human DGKD.
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 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	DGKD Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DGKD (HGNC:2851)
Function	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:12200442, PubMed:23949095). 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). By controlling the levels of diacylglycerol, regulates for instance the PKC and EGF receptor signaling pathways and plays a crucial role during development (By similarity). May also regulate clathrin-dependent endocytosis (PubMed:17880279).

Cellular Location Membrane, clathrin-coated pit. Cytoplasm

Tissue Location [Isoform 2]: Widely expressed.

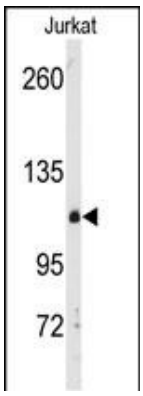
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK).

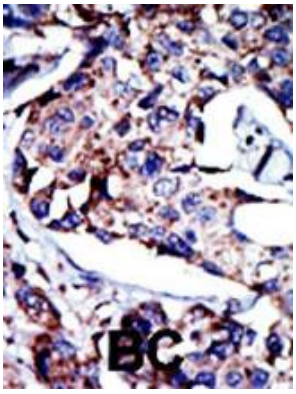
References

Sakane, F., et al., J. Biol. Chem. 271(14):8394-8401 (1996). Nagase, T., et al., DNA Res. 2(4):167-174 (1995).

Images



Western blot analysis of anti-anti-DGK delta Pab (Cat. #AP8126b) in Jurkat cell line lysates (35ug/lane). DGK delta (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.

Citations

- Membrane editing with proximity labeling reveals regulators of lipid homeostasis.
- Intracellular localization of diacylglycerols and sphingolipids influences insulin sensitivity and mitochondrial function in human skeletal muscle.

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