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DGKA Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8128b

Product Information

Application	IHC-P, WB, E
Primary Accession	P23743
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3872
Calculated MW	82630
Antigen Region	598-628

Additional Information

Gene ID	1606
Other Names	Diacylglycerol kinase alpha, DAG kinase alpha, 80 kDa diacylglycerol kinase, Diglyceride kinase alpha, DGK-alpha, DGKA, DAGK, DAGK1
Target/Specificity	This DGKA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 598-628 amino acids from the C-terminal region of human DGKA.
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 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	DGKA Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DGKA
Synonyms	DAGK, DAGK1
Function	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two

bioactive lipids (PubMed:15544348, PubMed:2175712). 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 (PubMed:15544348, PubMed:2175712). Also plays an important role in the biosynthesis of complex lipids (Probable). Can also phosphorylate 1-alkyl-2- acylglycerol in vitro as efficiently as diacylglycerol provided it contains an arachidonoyl group (PubMed:15544348). Also involved in the production of alkyl-lysophosphatidic acid, another bioactive lipid, through the phosphorylation of 1-alkyl-2-acetyl glycerol (PubMed:22627129).

Cellular Location Cytoplasm, cytosol.

Tissue Location Expressed in lymphocytes.

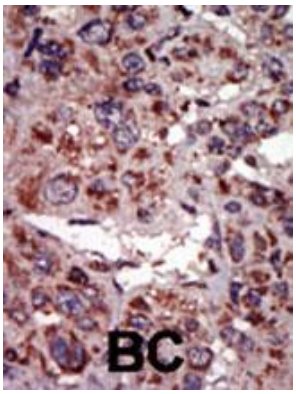
Background

Upon cell stimulation, the kinase DGKA converts the second messenger diacylglycerol into phophatidate, initiating the resynthesis of phosphatidylinositols and attenuating protein kinase C activity. DGKA is stimulated by calcium and phosphatidylserine, and is phosphorylated by protein kinase C. Tissue expression is in lymphocytes and oligodengroglial cells. DGKA contains 2 zinc-dependent phorbol-ester and DAG binding domains, and 2 EF-hand calcium binding domains.

References

Hart, T.C., et al., Genomics 22(1):246-247 (1994).
Hart, T.C., et al., Mamm. Genome 5(2):123-124 (1994).
Schaap, D., et al., FEBS Lett. 275 (1-2), 151-158 (1990).

Images



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