

DGKQ Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8122b**Specification**

DGKQ Antibody (C-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	P52824
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	101155
Antigen Region	912-942

DGKQ Antibody (C-term) - Additional Information**Gene ID** 1609**Other Names**

Diacylglycerol kinase theta, DAG kinase theta, Diglyceride kinase theta, DGK-theta, DGKQ, DAGK4

Target/Specificity

This DGKQ antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 912-942 amino acids from the C-terminal region of human DGKQ.

Dilution

WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

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

DGKQ Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DGKQ Antibody (C-term) - Protein Information**Name** DGKQ ([HGNC:2856](#))**Function** Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic

acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:[9099683](#), PubMed:[11309392](#), PubMed:[22627129](#)). 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:[11309392](#), PubMed:[17664281](#), PubMed:[26748701](#)). Within the adrenocorticotrophic hormone signaling pathway, produces phosphatidic acid which in turn activates NR5A1 and subsequent steroidogenic gene transcription (PubMed:[17664281](#)). Also functions downstream of the nerve growth factor signaling pathway being specifically activated in the nucleus by the growth factor (By similarity). Through its diacylglycerol activity also regulates synaptic vesicle endocytosis (PubMed:[26748701](#)).

Cellular Location

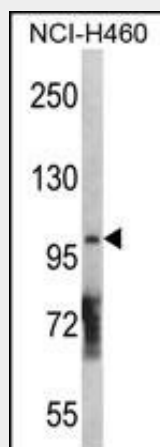
Cytoplasm. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q6P5E8}. Cell membrane. Synapse {ECO:0000250|UniProtKB:Q6P5E8}. Cytoplasm, cytoskeleton. Nucleus Nucleus speckle. Nucleus matrix {ECO:0000250|UniProtKB:D3ZEY4}. Note=Translocates to the plasma membrane in response to steroid hormone receptor stimulation (PubMed:15632189). Translocation to the plasma membrane is dependent on G-protein coupled receptor stimulation and subsequent activation of PRKCE and probably PRKCH (PubMed:15632189). Translocates to the nucleus in response to thrombin stimulation (Probable). Association with the nuclear matrix is regulated by nerve growth factor (By similarity) {ECO:0000250|UniProtKB:D3ZEY4, ECO:0000269|PubMed:15632189, ECO:0000305|PubMed:11309392}

DGKQ Antibody (C-term) - Protocols

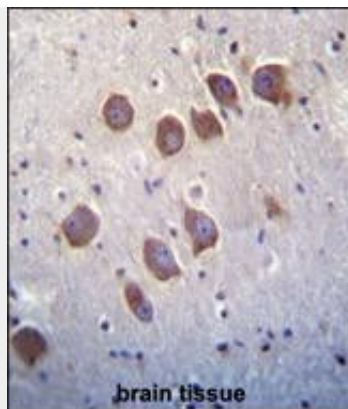
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

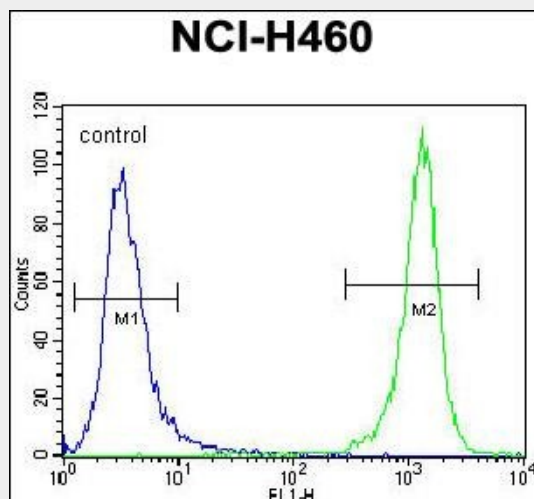
DGKQ Antibody (C-term) - Images



DGKQ Antibody (R927) (Cat.#AP8122b) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the DGKQ antibody detected the DGKQ protein (arrow).



DGKQ Antibody (C-term) (Cat. #AP8122b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of DGKQ Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



DGKQ Antibody (C-term) (Cat. #AP8122b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

DGKQ Antibody (C-term) - 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. The predicted 882-amino acid human DGKQ (DGK-theta) protein is 90% identical in sequence to the rat homolog. DGK-theta is comprised of a pleckstrin homology domain and the conserved DGK putative catalytic domain. In contrast to other DGK isotypes, DGK-theta contains 3 rather than 2 cysteine-rich zinc-binding domains, an N-terminal proline- and glycine-rich region, and a RAS-associating domain. Highest tissue expression in the rat is in the brain. Defects in eye-specific DAGK genes cause retinal degeneration in *Drosophila*; thus, DAGK genes are candidates for human eye disease.

DGKQ Antibody (C-term) - References

Pilz, A., et al., Genomics 26(3):599-601 (1995).