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DGKZ Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8060B

Specification

DGKZ Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	Q13574
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**989-1019**

DGKZ Antibody (C-term) - Additional Information

Gene ID 8525

Other Names
Diacylglycerol kinase zeta, DAG kinase zeta, Diglyceride kinase zeta, DGK-zeta, DGKZ, DAGK6

Target/Specificity
This DGKZ antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 989-1019 amino acids from the C-terminal region of human DGKZ.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100

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

DGKZ Antibody (C-term) - Protein Information

Name DGKZ (HGNC:2857)

Synonyms DAGK6

Function Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:9159104, PubMed:15544348, PubMed:18004883, PubMed:19744926, PubMed:22108654, PubMed:22627129, 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 (PubMed:9159104, PubMed:15544348, PubMed:18004883, PubMed:19744926, PubMed:22108654, PubMed:22627129, PubMed:23949095). Also plays an important role in the biosynthesis of complex lipids (Probable). Does not exhibit an acyl chain-dependent substrate specificity among diacylglycerol species (PubMed:9159104, PubMed:19744926, PubMed:22108654). Can also phosphorylate 1-alkyl-2-acylglycerol in vitro but less efficiently and with a preference for alkylacylglycerols containing an arachidonoyl group (PubMed:15544348, PubMed:19744926, PubMed:22627129). The biological processes it is involved in include T cell activation since it negatively regulates T-cell receptor signaling which is in part mediated by diacylglycerol (By similarity). By generating phosphatidic acid, stimulates PIP5KIA activity which regulates actin polymerization (PubMed:15157668). Through the same mechanism could also positively regulate insulin-induced translocation of SLC2A4 to the cell membrane (By similarity).

Cellular Location
Nucleus. Cytoplasm, cytosol. Cell membrane. Cell projection, lamellipodium

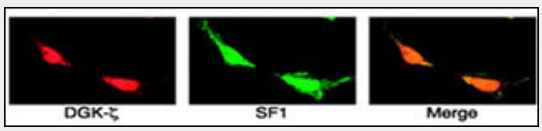
Tissue Location
Highest levels in brain, and substantial levels in skeletal muscle, heart, and pancreas.

DGKZ Antibody (C-term) - Protocols

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

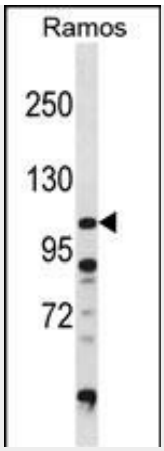
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DGKZ Antibody (C-term) - Images

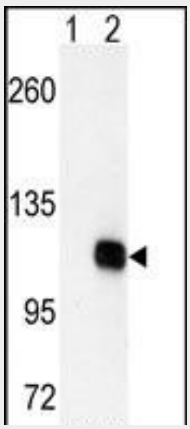


SF1 colocalizes with DGK and PA in the nuclei of H295R cells. Cells were plated onto glass coverslips, fixed, permeabilized, and incubated with anti-SF1 and anti-DGKZ (B) for 1 h. Coverslips were washed and incubated with anti-fluorescein isothiocyanate and antirhodamine, and immunofluorescence was detected by confocal microscopy.

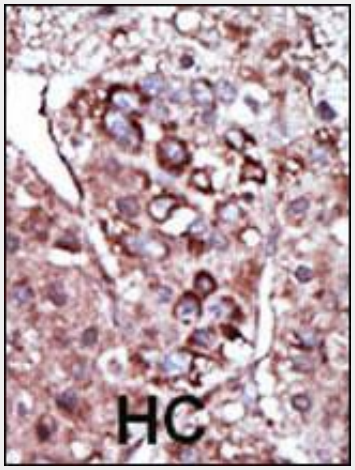
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DGKZ Antibody (D1004) (Cat. #AP8060b) western blot analysis in Ramos cell line lysates (35ug/lane).This demonstrates the DGKZ antibody detected the DGKZ protein (arrow).



Western blot analysis of DGKZ (arrow) using DGKZ Antibody (C-term) (Cat.#AP8060b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the DGKZ gene (Lane 2) (Origene Technologies).



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.

DGKZ Antibody (C-term) - Background

DGKZ belongs to the eukaryotic diacylglycerol kinase family. It may attenuate protein kinase C activity by regulating diacylglycerol levels in intracellular signaling cascade and signal transduction.

DGKZ Antibody (C-term) - References

Hogan, A., et al., J. Biol. Chem. 276(28):26526-26533 (2001).
Topham, M.K., et al., Nature 394(6694):697-700 (1998).
Ding, L., et al., Proc. Natl. Acad. Sci. U.S.A. 94(11):5519-5524 (1997).
Bunting, M., et al., J. Biol. Chem. 271(17):10230-10236 (1996).

DGKZ Antibody (C-term) - Citations

- Cyclic AMP-stimulated interaction between steroidogenic factor 1 and diacylglycerol kinase theta facilitates induction of CYP17.