

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

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**DGKZ Antibody (C-term) - Product Information**

Application	IF, IHC-P, WB,E
Primary Accession	<a href="#">Q13574</a>
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

IHC-P~~1:50~100

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 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:[15544348](#), PubMed:[18004883](#), PubMed:[19744926](#), PubMed:[22108654](#), PubMed:[22627129](#), PubMed:[23949095](#), PubMed:[9159104](#)). 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:[18004883](#), PubMed:[19744926](#), PubMed:[22108654](#), PubMed:[22627129](#), PubMed:[23949095](#), PubMed:[9159104](#)). 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:[19744926](#), PubMed:[22108654](#), PubMed:[9159104](#)). 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

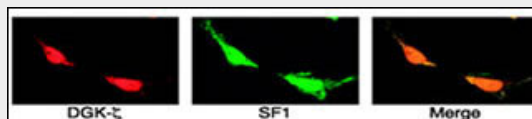
Highest levels in brain, and substantial levels in skeletal muscle, heart, and pancreas.

#### DGKZ Antibody (C-term) - Protocols

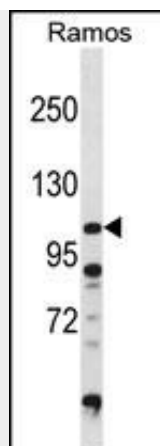
Provided below are standard protocols that you may find useful for product applications.

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

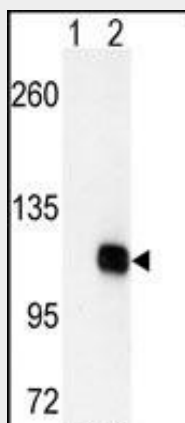
#### DGKZ Antibody (C-term) - Images



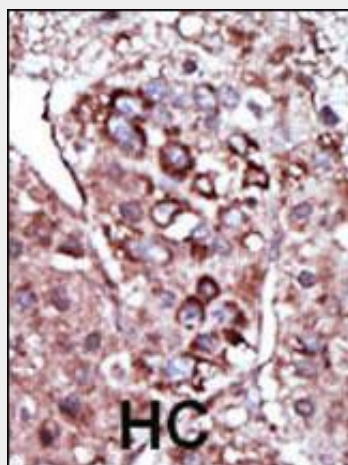
SF1 colocalizes with DGK and PA in the nuclei of H295R cells. Cells were plated onto glass coverslips, fixed, permeabilized, and incubated with anti-SF1 and anti-DGKZ (B) for 1 h. Coverslips were washed and incubated with anti-fluorescein isothiocyanate and antirhodamine, and immunofluorescence was detected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



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.](#)