

DGKZ Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8060b**Specification**

DGKZ Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q13574](#)**DGKZ Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 8525**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8060b](/product/products/AP8060b) was selected from the C-term region of human DGKZ. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DGKZ Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/9159104), PubMed: [15544348](http://www.uniprot.org/citations/15544348), PubMed: [18004883](http://www.uniprot.org/citations/18004883), PubMed: [19744926](http://www.uniprot.org/citations/19744926), PubMed: [22108654](http://www.uniprot.org/citations/22108654), PubMed: [22627129](http://www.uniprot.org/citations/22627129), PubMed: [23949095](http://www.uniprot.org/citations/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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

DGKZ Antibody (C-term) Blocking Peptide - Images

DGKZ Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - 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).