

**DGKE Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8125a****Specification**

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**DGKE Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P52429](#)**DGKE Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 8526**Other Names**

Diacylglycerol kinase epsilon, DAG kinase epsilon, Diglyceride kinase epsilon, DGK-epsilon, DGKE, DAGK5

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8125a](/product/products/AP8125a) was selected from the N-term region of human DGKE. 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.

**DGKE Antibody (N-term) Blocking Peptide - Protein Information****Name** DGKE**Synonyms** DAGK5**Function**

Membrane-bound diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed: [15544348](http://www.uniprot.org/citations/15544348), PubMed: [19744926](http://www.uniprot.org/citations/19744926), PubMed: [21477596](http://www.uniprot.org/citations/21477596), PubMed: [22108654](http://www.uniprot.org/citations/22108654), 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:<a href="http://www.uniprot.org/citations/15544348" target="\_blank">15544348</a>, PubMed:<a href="http://www.uniprot.org/citations/8626589" target="\_blank">8626589</a>). Also plays an important role in the biosynthesis of complex lipids (PubMed:<a href="http://www.uniprot.org/citations/8626589" target="\_blank">8626589</a>). Displays specificity for diacylglycerol substrates with an arachidonoyl acyl chain at the sn-2 position, with the highest activity toward 1-octadecanoyl-2- (5Z,8Z,11Z,14Z-eicosatetraenoyl)-sn-glycerol the main diacylglycerol intermediate within the phosphatidylinositol turnover cycle (PubMed:<a href="http://www.uniprot.org/citations/19744926" target="\_blank">19744926</a>, PubMed:<a href="http://www.uniprot.org/citations/22108654" target="\_blank">22108654</a>, PubMed:<a href="http://www.uniprot.org/citations/23274426" target="\_blank">23274426</a>). Can also phosphorylate diacylglycerol substrates with a linoleoyl acyl chain at the sn-2 position but much less efficiently (PubMed:<a href="http://www.uniprot.org/citations/22108654" target="\_blank">22108654</a>).

### **Cellular Location**

Membrane; Single- pass membrane protein. Cytoplasm

### **Tissue Location**

Expressed predominantly in testis. Expressed in endothelium, platelets and podocytes (at protein level)

### **DGKE Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **DGKE Antibody (N-term) Blocking Peptide - Images**

### **DGKE Antibody (N-term) Blocking Peptide - Background**

Diacylglycerol kinases are thought to be involved mainly in the regeneration of phosphatidylinositol (PI) from diacylglycerol in the PI-cycle during cell signal transduction. When expressed in mammalian cells, DGKE shows specificity for arachidonoyl-containing diacylglycerol. DGKE is expressed predominantly in testis.

### **DGKE Antibody (N-term) Blocking Peptide - References**

Tang, W., et al., Gene 239(1):185-192 (1999).Hart, T.C., et al., Genomics 56(2):233-235 (1999).Tang, W., et al., J. Biol. Chem. 271(17):10237-10241 (1996).