Active Diacylglycerol Kinase Epsilon (DGKe)

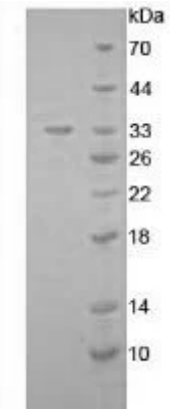
Catalog#:PEH12942

概述（Summary）

别称（Alternative Names）	DAGK5; DGK; Diglyceride kinase epsilon
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Leu243-Gly502】
Accession #	P52429
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	32.5 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Membrane-bound diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids. 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. Also plays an important role in the biosynthesis of complex lipids. 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. Can also phosphorylate diacylglycerol substrates with a linoleoyl acyl chain at the sn-2 position but much less efficiently.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

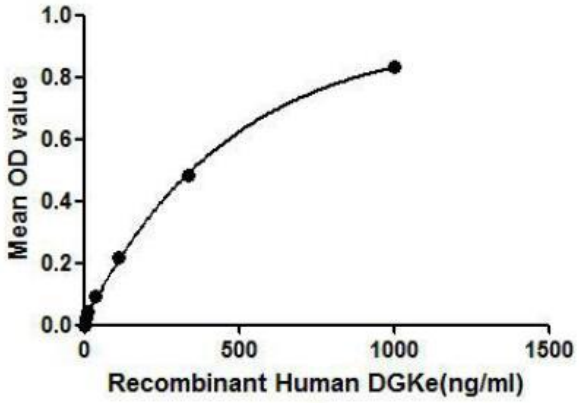


Figure 1. The binding activity of DGKe with PDHA.

DGKe (Diacylglycerol kinase epsilon) is an enzyme that mainly involved in the regeneration of phosphatidylinositol (PI) from diacylglycerol in the PI-cycle during cell signal transduction. PDHA1 (Pyruvate dehydrogenase E1 component subunit alpha) has been proven to be an interactor of DGKe through Affinity Capture-MS. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human DGKe and recombinant human PDHA. Briefly, DGKe were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL DGKe were then transferred to PDHA-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-DGKe pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of DGKe and PDHA was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.