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Anti-DGK zeta Antibody

Rabbit polyclonal antibody to DGK zeta
Catalog # AP61386

Product Information

Application	WB, IHC
Primary Accession	Q13574
Other Accession	Q80UP3
Reactivity	Human, Mouse, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	103981

Additional Information

Gene ID	8525
Other Names	DAGK6; Diacylglycerol kinase zeta; DAG kinase zeta; Diglyceride kinase zeta; DGK-zeta
Target/Specificity	Recognizes endogenous levels of DGK zeta protein.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

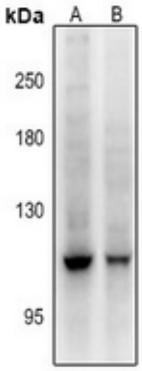
Name	DGKZ (HGNC:2857)
Synonyms	DAGK6
Function	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:15544348, PubMed:18004883, PubMed:19744926, PubMed:22108654, PubMed:22627129, PubMed:23949095, 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.

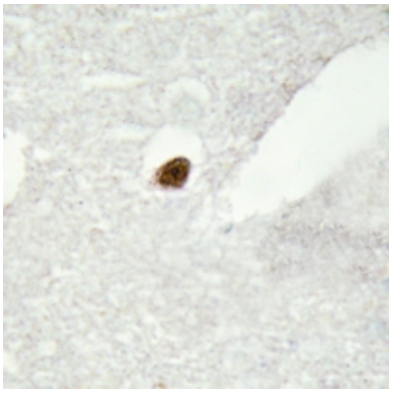
Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human DGK zeta. The exact sequence is proprietary.

Images



Western blot analysis of DGK zeta expression in A549 (A), BV2 (B) whole cell lysates.



Immunohistochemical analysis of DGK zeta staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.