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DGKZ/DGK-zeta Rabbit mAb

Catalog # AP76468

Product Information

Application	WB, IHC-P, FC
Primary Accession	Q13574
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	103981

Additional Information

Gene ID	8525
Other Names	DGKZ
Dilution	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:200-1:500
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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.

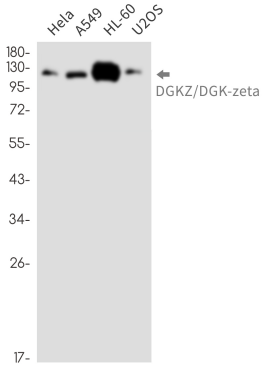
Background

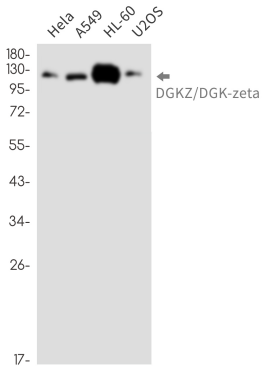
The protein encoded by this gene belongs to the eukaryotic diacylglycerol kinase family. It may attenuate protein kinase C activity by regulating diacylglycerol levels in intracellular signaling cascade and signal transduction. Alternative splicing occurs at this locus and multiple transcript variants encoding distinct isoforms have been identified.

Images



Western blot analysis of DGKZ/DGKzeta in Hela, A549, HL-60, U2OS lysates using DGKZ antibody.





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