

DGKZ Rabbit mAb

Catalog # AP76469

Product Information

Application WB, IP **Primary Accession** Q13574

Reactivity Human, Mouse, Rat

Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 103981

Additional Information

Gene ID 8525

Other Names DGKZ

Dilution WB~~1/500-1/1000 IP~~1/20

Format Liquid

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:<u>9159104</u>). 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:<u>15544348</u>,

PubMed: 18004883, PubMed: 19744926, PubMed: 22108654,

PubMed:<u>22627129</u>, PubMed:<u>23949095</u>, PubMed:<u>9159104</u>). 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:<u>19744926</u>, PubMed:<u>22108654</u>, PubMed:<u>9159104</u>). 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).

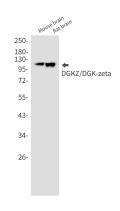
Cellular Location

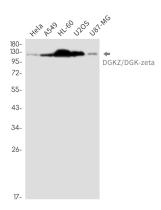
Nucleus. Cytoplasm, cytosol. Cell membrane. Cell projection, lamellipodium

Tissue Location

Highest levels in brain, and substantial levels in skeletal muscle, heart, and pancreas.

Images





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