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# DGKZ/DGK-zeta Rabbit mAb

Catalog # AP76469

## Product Information

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

## Additional Information

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| **Gene ID** | 8525 |
| **Other Names** | DGKZ |
| **Dilution** | WB~~1:500-1:1000 IHC-P~~N/A FC~~1:200-1:500 IP~~1:20-1:50 |
| **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

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| **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 |

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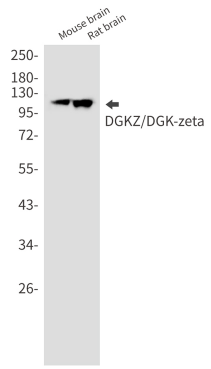
| | preference for alkylacylglycerols containing an arachidonoyl group (PubMed:15544348, PubMed:19744926, PubMed:22627129). The biological processes it is involved in include T cell activation since it negatively regulates T-cell receptor signaling which is in part mediated by diacylglycerol (By similarity). 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. |

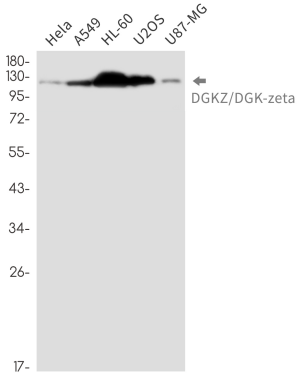
## Background

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.

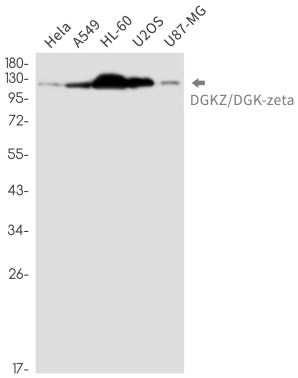
## Images

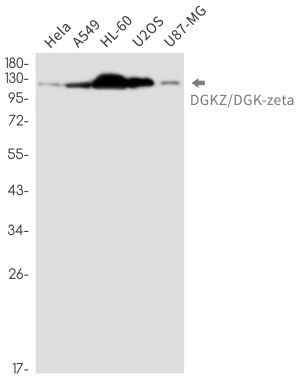



Western blot analysis of DGKZ/DGKzeta in mouse brain, rat brain lysates using DGKZ antibody.




Western blot analysis of DGKZ/DGKzeta in Hela, A549, HL-60, U2OS, U87-MG lysates using DGKZ/DGKzeta antibody.

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