

DESCRIPTION

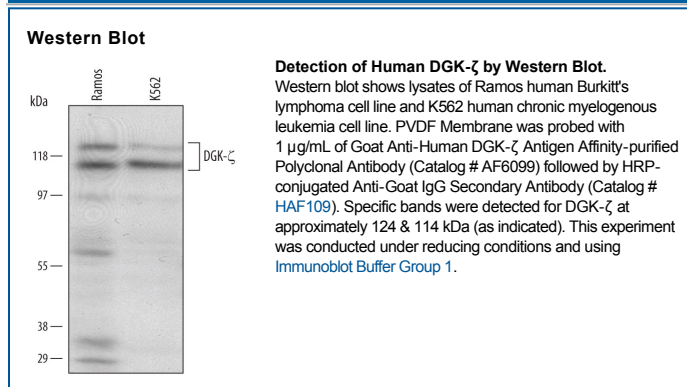
| | |
|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human DGK- ζ in Western blots. |
| Source | Polyclonal Goat IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | <i>E. coli</i> -derived recombinant human DGK- ζ Gln800-Val945 Accession # Q13574 |
| Formulation | Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|---------------------|----------------------------------|---------------|
| Western Blot | 1 μ g/mL | See Below |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|--|
| Reconstitution | Reconstitute at 0.2 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

DGK- ζ (Diacylglycerol kinase zeta; also DAG kinase 6) is a 130 kDa member of the eukaryotic diacylglycerol (DAG) kinase family of proteins. It exists in both cytoplasm and nucleus, and is widely expressed, being found in neurons, skeletal muscle cells and endothelium. DGK- ζ converts DAG into phosphatidic acid (PA). In the nucleus, this activates mTOR and promotes cell proliferation. In the cytoplasm, DGK- ζ -generated PA activates PAK1, leading to increased cell motility. Human DGK- ζ is 1117 amino acids (aa) in length and contains two DAG-type Zn-finger regions (aa 287-419), a MARCKS homology domain (aa 448-462) and a catalytic domain (aa 486-607). In addition to the 130 kDa protein, there are several splice variants that run about 114 kDa in SDS-PAGE.