

Recombinant Human DCAMKL1 Protein (aa 1-705, His & GST Tag)



Catalog Number:PKSH030359

Note: Centrifuge before opening to ensure complete recovery of vial contents.

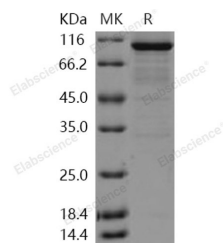
Description

| | |
|------------------------------------|---|
| Synonyms | CL1;CLICK1;DCAMKL1;DCDC3A;DCLK |
| Species | Human |
| Expression Host | Baculovirus-Insect Cells |
| Sequence | Met 1-Val 705 |
| Accession | O15075-1 |
| Calculated Molecular Weight | 106 kDa |
| Observed molecular weight | 105 kDa |
| Tag | N-His-GST |
| Bioactivity | The specific activity was determined to be 6. 1 nmol/min/mg using synthetic Autocamtide-2 peptide (KKALRRQETVDAL-amide) as substrate. |

Properties

| | |
|-----------------------|--|
| Purity | > 84 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per µg of the protein as determined by the LAL method. |
| Storage | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. |
| Shipping | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C. |
| Formulation | Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol, 0.5mM PMSF |
| Reconstitution | Not Applicable |

Data



> 84 % as determined by reducing SDS-PAGE.

Background

DCAMKL1; also known as DCLK1; is a member of the protein kinase superfamily and the doublecortin family. It contains two N-terminal doublecortin domains; which bind microtubules and regulate microtubule polymerization; a C-terminal serine/threonine protein kinase domain; which shows substantial homology to Ca²⁺/calmodulin-dependent protein kinase; and a serine/proline-rich domain in between the doublecortin and the protein kinase domains; which mediates multiple protein-protein interactions. DCAMKL1 is involved in several different cellular processes; including neuronal migration; retrograde transport; neuronal apoptosis and neurogenesis. Its microtubule-polymerizing activity is independent of its protein kinase activity. DCAMKL1 may be involved in a calcium-signaling pathway controlling neuronal migration in the developing brain. It may also participate in functions of the mature nervous system.

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