# **Recombinant Human DCAMKL1 Protein**

Catalog Number: PKSH031076



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

SequenceMet 1-Val 705AccessionO15075-1Calculated Molecular Weight78.5 kDaObserved molecular weight64 kDaTagNone

## **Properties**

**Purity** > 80 % as determined by reducing SDS-PAGE.

**Endotoxin**  $< 1.0 \text{ EU per } \mu \text{g of the protein as determined by the LAL method.}$ 

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4

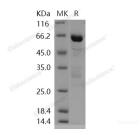
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 80 % 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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