

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

Catalog No. PKSH030359

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

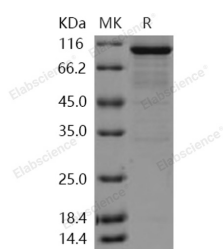
### Description

<b>Synonyms</b>	CL1;CLICK1;DCAMKL1;DCDC3A;DCLK
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Val 705
<b>Accession</b>	O15075-1
<b>Calculated Molecular Weight</b>	106 kDa
<b>Observed molecular weight</b>	105 kDa
<b>Tag</b>	N-His-GST
<b>Bioactivity</b>	The specific activity was determined to be 6.1 nmol/min/mg using synthetic Autocamide-2 peptide (KKALRRQETVDAL-amide) as substrate.

### Properties

<b>Purity</b>	> 84 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	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.
<b>Formulation</b>	Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol, 0.5mM PMSF
<b>Reconstitution</b>	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 Ca<sup>2+</sup>/calmodulin-dependent protein kinase; and a serine/proline-rich domain in between the doublecortin and the protein kinase domains; which

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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.