



# Recombinant Protein Technical Manual

## Recombinant Human DCAMKL1 Protein (aa 1-705, His & GST Tag)(Active) RPES1198

### Product Data:

**Product SKU:** RPES1198

**Size:** 20µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** O15075

### Protein Information:

**Molecular Mass:** 106 kDa

**AP Molecular Mass:** 105 kDa

**Tag:** N-His & GST

**Bio-activity:** The specific activity was determined to be 6.1 nmol/min/mg using synthetic Autocamtide-2 peptide (KKALRRQETVDAL-amide) as substrate.

**Purity:** > 84 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg 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 20mM Tris, 500mM NaCl, pH 7.4, 10% gly, 0.5mM PMSF

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

**Application:**

**Synonyms:** CL1;CLICK1;DCAMKL1;DCDC3A;DCLK

## Immunogen Information:

**Sequence:** Met 1-Val 705

## 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 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.