

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

Catalog No. PKSH030359

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

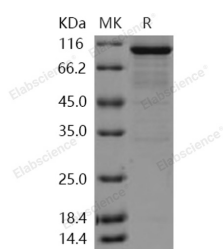
Description

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

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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.