

Active Recombinant Human DCLK1 Protein, GST-tagged

Cat. No. DCLK1-2392H Lot. No. (See product label)

SPECIFICATION

Product Overview

Human DCLK1 (NP_004725.1, 1 a.a. - 729 a.a.) full-length recombinant protein with GST tag expressed in baculovirus infected Sf21 cells.

Species

Human

Source

Insect Cells

Description

This gene encodes a member of the protein kinase superfamily and the doublecortin family. The protein encoded by this gene 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. The microtubule-polymerizing activity of the encoded protein is independent of its protein kinase activity. The encoded protein is involved in several different cellular processes, including neuronal migration, retrograde transport, neuronal apoptosis and neurogenesis. This gene is up-regulated by brain-derived neurotrophic factor and associated with memory and general cognitive abilities. Multiple transcript variants generated by two alternative promoter usage and alternative splicing have been reported, but the full-length nature and biological validity of some variants have not been defined. These variants encode different isoforms, which are differentially expressed and have different kinase activities.[provided by RefSeq, Sep 2010]

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Form	Liquid
Bio-activity	The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescence-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip 3000. Substrate: GS peptide. ATP: 1000 uM
Molecular Mass	108 kDa
Purity	58 % by SDS-PAGE/CBB staining
Applications	Antibody Production Functional Study Compound Screening
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.1% CHAPS, 1 mM DTT, 10% glycerol)

GENE INFORMATION

Gene Name	DCLK1 doublecortin-like kinase 1 [Homo sapiens]
Official Symbol	DCLK1
Synonyms	DCLK1; doublecortin-like kinase 1; DCAMKL1, doublecortin and CaM kinase like 1; serine/threonine-protein kinase DCLK1; DCDC3A; DCLK; KIAA0369; doublecortin and CaM kinase-like 1; doublecortin-like and CAM kinase-like 1; doublecortin domain-containing protein 3A; CL1; CLICK1; DCAMKL1;
Gene ID	9201

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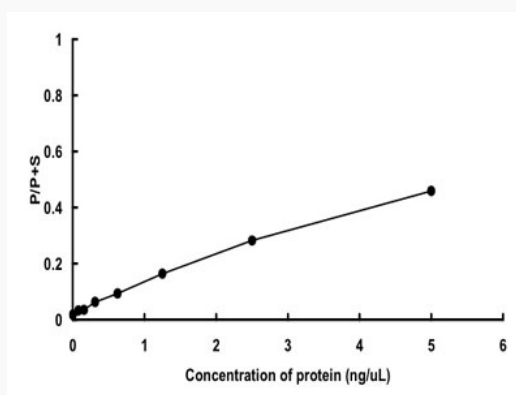
mRNA Refseq [NM_001195415](#)

Protein Refseq [NP_001182344](#)

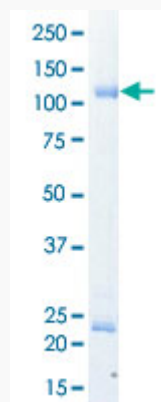
MIM [604742](#)

UniProt ID [O15075](#)

Result of activity analysis



Quality Control Testing:



Loading 1 µg protein in SDS-PAGE

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