Recombinant Human DCLK1

Cat. No. DCLK1-26808TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human DCAMKL1 expressed in a Baculovirus infected Sf9 cell expression system with N-terminal proprietary tag, MWt 110kDa.
Species	Human
Source	Insect Cells
ProteinLength	740 amino acids
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.

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Molecular Weight	110.000kDa inclusive of tags
Tissue specificity	In fetal tissues, highly expressed in brain, detectable in lung and liver, but not in kidney. In adult tissues, expressed ubiquitously in the brain, detectable in the heart, liver, spleen, thymus, prostate, testis, ovary, small intestine and colon. The ty
Biological activity	The Specific activity of DCLK1-26808TH was determined to be 3.4 nmol/min/mg.
Form	Liquid
Storage buffer	Preservative: NoneConstituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 10mM Glutathione, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.Contains 2 doublecortin domains.Contains 1 protein kinase domain.

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;
Gene ID	9201
mRNA Refseq	NM_001195415

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Protein Refseq	NP_001182344
MIM	604742
Uniprot ID	O15075
Chromosome Location	13q13.3
Function	ATP binding; kinase activity; nucleotide binding; protein kinase activity; protein serine/threonine kinase activity;

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