

## Product datasheet for **TR320606**

### DCAMKL1 (DCLK1) Human shRNA Plasmid Kit (Locus ID 9201)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	DCAMKL1 (DCLK1) Human shRNA Plasmid Kit (Locus ID 9201)
Locus ID:	9201
Synonyms:	CL1; CLICK1; DCAMKL1; DCDC3A; DCLK
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	DCLK1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 9201). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001195415</a> , <a href="#">NM_001195416</a> , <a href="#">NM_001195430</a> , <a href="#">NM_004734</a> , <a href="#">NM_001330071</a> , <a href="#">NM_001330072</a> , <a href="#">NM_004734.1</a> , <a href="#">NM_004734.2</a> , <a href="#">NM_004734.3</a> , <a href="#">NM_004734.4</a> , <a href="#">NM_001195416.1</a> , <a href="#">BC152456</a> , <a href="#">BC160043</a> , <a href="#">BM679448</a> , <a href="#">BM682165</a> , <a href="#">NM_004734.5</a> , <a href="#">NM_001195430.2</a> , <a href="#">NM_001195416.2</a>
UniProt ID:	<a href="#">O15075</a>



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**Summary:**

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 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. 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]

**shRNA Design:**

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**Performance Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).