

## Product datasheet for **RR200772**

### **Dclk1 (NM\_053343) Rat Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dclk1 (NM\_053343) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Dclk1  
**Synonyms:** Ania4; Cpg16; Dcamkl1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR200772 representing NM\_053343  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTTAGAACTCATAGAAGTTAATGGAACCCCTGGCAGTCAGCTCTCCACTCCGCGCTCCGCAAGTCAC  
CAAGTCCATCGCCACCAGCCAGGAAGCTGCGGAAGCAGAGGATCTCTCAGCATGGCGCTCCTCCAC  
TTCACTTTTCATCCACAAAAGTCTGCAGCTCAATGGATGAGAACGATGGCCCTGGGGAAGAAGAGTCCGAC  
GAAGGTTTCCAGATTCTGCCACAATAACAGAGAGATACAAAGTCGGGAGAACAATAGGAGATGAAATT  
TCGCTGTTGTCAAGGAATGTATAGAGAGGTCGACTGCTCGGGAGTATGCCTGAAAATTATCAAGAAAAG  
TAAATGCCGAGGCAAAGAACACATGATCCAAAACGAGGCTCCATCTTAAGGAGAGTGAAGCATCCGAAC  
ATTGTTCTCTGATTGAAGAGATGGATGTGCCGACTGAACTATATCTTGTAAATGGAGTTAGTAAAGGGTG  
GAGACTTTTTCGATGCCATCACTTCCACTAGCAAATACACAGAGCGGGATGCCAGTGGGATGCTGTACAA  
CCTGGCCAGTGCATTAAATACCTGCACAGCCTGAACATCGTCCATCGTGACATCAAGCCAGAGAACCTG  
CTGGTGTATGAGCACCAGGATGGCAGTAAGTCACTCAAGTTGGTGACTTTGGCCTGGCCACAATTGTCG  
ATGGCCCCGTACACAGTCTGTGGCACCCCAACTTATGTGGCTCCAGAAATCATTGCAGAGATGGATA  
TGGCCTCAAGGTGGACATCTGGCAGCTGGCGTGATCACTTATATCCTGTTGTGGTTTTCCCTCCATT  
CGTGGAAGTGGGATGACCAGGAGGTGCTTTTTGACCAGATCTTGATGGGCAAGTGACTTTCCATCTC  
CGTATTGGGACAATGTGTCAGATTCTGCTAAGGAGCTCATCAACATGATGCTGTTGGTTAACGTGGACCA  
GAGATTTTCAGCCGTGCAAGTCTTGAGACCCCTGGGTTAACGATGATGGCCTCCAGAAAATGAACAT  
CAGCTGTCAGTAGCTGGCAAGATCAAGAAGCATTTC AACACGGGCCCAAGCCGAGCAGCACGGCAGCTG  
GAGTTTCTGTAATAGCAACCACCGCTCTTGATAAGGAGAGGCAGGTTTTCCGACGAAGACGCAACCAGGA  
TGTGAGGGCCGGTACAAGGCACAGCCAGCTCCACCAGAACTCAACTCGGAATCAGAAGACTACTCCCC  
AGCTCCTCTGAGACTGTCCGCTCCCCAATTGCCCTTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RR200772 representing NM\_053343  
 Red=Cloning site Green=Tags(s)

MLELIEVNGTPGSQLSTPRSGKSPSPSTSPGSLRKQRISQHGGSSTLSSTKVCSSMDENDGPGEESD  
 EGFQIPATITERYKVGRTIGDGNFAVVKECIERSTAREYALKI IKKSKCRGKEHMIQNEVSI LRRVKHPN  
 IVLLIEEMDVPTLEYLVMELVKGGDLFDAITSTSKYTERDASGMLYNLASAIKYLHSLNIVHRDIKPNL  
 LVYEHQDGSKSLKLGDFGLATIVDGPLYTVCGTPTYVAPEIIAETGYGLKVDIWAAGVITYILLCGFPPF  
 RGSDDQEVLFQILMGQVDFPSPYWDNVSDSAKELINMMLLVNVVQRFSAVQVLEHPWVNDGLPENEH  
 QLSVAGKIKKHFNTGPKPSSTAAGVSVIATTALDKERQVFRRRRNQDVRGRYKAQPAPPELNSESEDYSP  
 SSETVRSNPF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

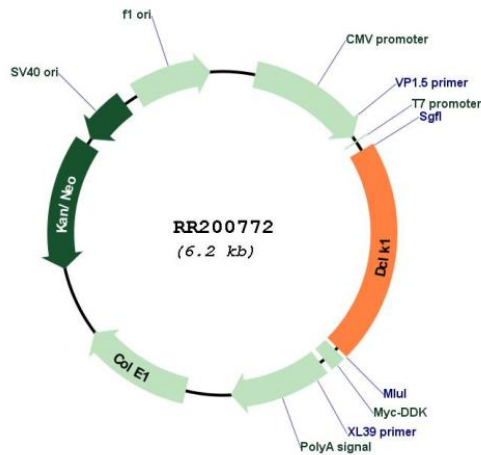
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_053343

<b>ORF Size:</b>	1299 bp
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_053343.3</a> , <a href="#">NP_445795.1</a>
<b>RefSeq Size:</b>	6903 bp
<b>RefSeq ORF:</b>	1302 bp
<b>Locus ID:</b>	83825
<b>UniProt ID:</b>	<a href="#">O08875</a>
<b>Cytogenetics:</b>	2q26
<b>MW:</b>	47.7 kDa
<b>Gene Summary:</b>	This gene encodes a member of the protein kinase superfamily and the doublecortin family. The typical 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 protein is independent of its protein kinase activity. This gene is involved in several different cellular processes, including neuronal migration, retrograde transport, neuronal apoptosis and neurogenesis. Multiple transcript variants generated by two alternative promoter usage and alternative splicing have been found, but the full-length nature of the variant produced from the 5' promoter has not been determined. Current reference sequence data represents two alternatively spliced transcript variants produced from the 3' promoter and their protein products lack the doublecortin domain.[provided by RefSeq, Sep 2010]