

## Product datasheet for **RR215709**

### **Dclk1 (NM\_021584) Rat Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dclk1 (NM\_021584) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Dclk1  
**Synonyms:** Ania4; Cpg16; Dcamkl1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RR215709 representing NM\_021584  
**Red**=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTAGAACTCATAGAAGTTAATGGAACCCCTGGCAGTCAGCTCTCCACTCCGCGCTCCGGCAAGTCAC  
CAAGTCCATCGCCACCAGCCAGGAAGCCTGCGGAAGCAGAGGGACCTGTACCGCCCTCTCTCGTCGGA  
TGATTTGGACTCAGTAGGAGACTCAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR215709 representing NM\_021584  
**Red**=Cloning site **Green**=Tags(s)

MLELIEVNGTPGSQLSTPRSGKSPSPSPTSPGSLRKQRDLRPLSSDDLDSVGDSV

**TR**TRPLE**QKL**ISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI



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## Cloning Scheme:



ACCN: NM\_021584

ORF Size: 168 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM\\_021584.2](#), [NP\\_067595.1](#)

RefSeq Size: 4819 bp

RefSeq ORF: 171 bp

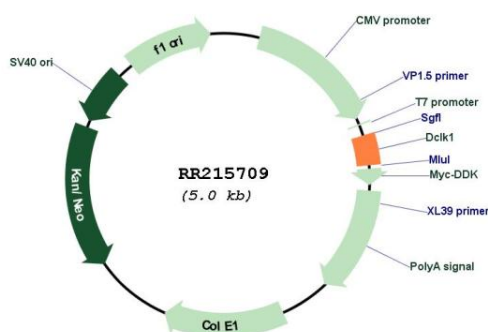
Locus ID: 83825

Cytogenetics: 2q26

MW: 5.9 kDa

**Gene Summary:** 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]

## Product images:



Circular map for RR215709