

Product datasheet for **RN215709**

Dclk1 (NM_021584) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dclk1 (NM_021584) Rat Untagged Clone
Tag: Tag Free
Symbol: Dclk1
Synonyms: Ania4; Cpg16; Dcamkl1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN215709 representing NM_021584
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTGTAAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTAGAACTCATAGAAGTTAATGGAACCCCTGGCAGTCAGCTCTCCACTCCGCGCTCCGCAAGTCAC
CAAGTCCATCGCCACCAGCCAGGAAGCCTGCGGAAGCAGAGGGACCTGTACCGCCCTCTCTCGCGGA
TGATTTGGACTCAGTAGGAGACTCAGT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_021584
Insert Size: 171 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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).



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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

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 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 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]

Transcript Variant: This variant (2) is produced from the 3' promoter. It lacks multiple 3' exons but has an alternate 3' exon, as compared to variant 1. The resulting isoform [2, also known as ania-4, or CARP (CaMK-related peptide)] is only 56 aa long and mainly consists of the serine/proline-rich domain. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.