

## Product datasheet for MC208366

### Dclk1 (NM\_001111053) Mouse Untagged Clone

#### Product data:

|                      |  |
|----------------------|--|
| Product Type:        | Expression Plasmids  |
| Product Name:        | Dclk1 (NM_001111053) Mouse Untagged Clone  |
| Tag:                 | Tag Free   |
| Symbol:              | Dclk1  |
| Synonyms:            | 1700113D08Rik; 2810480F11Rik; AI836758; Clic; Click-I; CPG1; Cpg16; Dc; Dcamk; Dcamkl1; Dcl; Dclk; mKIAA0369 |
| Vector:              | pCMV6-Entry (PS100001)   |
| E. coli Selection:   | Kanamycin (25 ug/mL)   |
| Cell Selection:      | Neomycin   |
| Fully Sequenced ORF: | >MC208366 representing NM_001111053<br>Red=Cloning site Blue=ORF Orange=Stop codon                           |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGTTCCGGCAGAGATATGGAGTTGGAGCATTTTGTAGAGCGGGACAAGGGCCAGAGGTACAGCAGGG  
GGTCCCCTGTGAATGGCCTGCCAGCCCCACACAGCGCCCACTGCAGTTCTACCGCACCCGCACCCCT  
GCAGACTCAGCTCCGAGAAGAAAGCCAAGAAGGTTTCGATTCTACAGAAATGGTGACCGCTACTTCAA  
GGAATTGTGTATGCCATCTCCCCAGACCGCTTCAGATCTTTCGAGGCCCTGCTGGCTGATTTGACCCGAA  
CTCTCTCGGATAATGTGAATTTGCCAGGGGTGAGAACCATCTACACCATCGATGGACTCAAGAAGAT  
CTCCAGCCTGGACCAGCTGGTGAAGGTGAAAGCTATGTCTGCGGCTCCATCGAGCCCTTAAAGAAGCTG  
GAGTACACCAAGAATGTGAACCCCAACTGGTCACTGACGTCAGTCAAGACCACCTCAGCCTCCCGCGCAGTGT  
CTTCTTTGGCCACTGCCAAGGGTGGGCCTTCGGAGGTTCCGGGAGAATAAGGATTTTCATTCGACCCAAAGCT  
GGTCAACATCATCAGAAGTGGGGTGAAGCCACGGAAGGCTGTGAGAATCCTGCTGAACAAGAAGACGGCT  
CACTCCTTCGAGCAGGTTCTCACTGACATTACCGACGCTATCAAGCTGGACTCCGGTGTGGTGAAGCGCC  
TGTACTCTGGATGGGAAGCAGGTGATGTGCCTTCAGGACTTTTTTGGTGACGATGACATTTTTATTGC  
ATGTGGACCAGAGAAGTCCGTTACCAGGATGATTTCTTGCTAGATGAAAGTGAATGTGAGTGGTGAAA  
TCAACTTCTTACACAAAATAGCATCAGCGTCCCGCAGAGGCACAACCAAGAGCCAGGACCTTCCCGGA  
GAAGCAAGTCCCCAGCCTCCACCAGCTCAGTTAATGGAACCCCTGGTAGTCAGCTCTACTCCACGCTC  
GGCAAGTCAACCAAGTCCATCACCCACCAGCCAGGAAGCCTGCGGAAGCAGAGGGACCTGTACCGCCCC  
CTCTCGTCGGATGATTTGGACTCAGTAGGAGACTCAGT**GTA**A

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI



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|                               |   |
|-------------------------------|---|
| <b>ACCN:</b>                  | NM_001111053  |
| <b>Insert Size:</b>           | 1092 bp   |
| <b>OTI Disclaimer:</b>        | 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).  |
| <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>                | <u><a href="#">NM_001111053.1</a></u> , <u><a href="#">NP_001104523.1</a></u>   |
| <b>RefSeq Size:</b>           | 6026 bp   |
| <b>RefSeq ORF:</b>            | 1092 bp   |
| <b>Locus ID:</b>              | 13175   |
| <b>Cytogenetics:</b>          | 3 C   |

**Gene 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 found, but the biological validity of some variants has not been determined. These variants encode different isoforms, which are differentially expressed and have different kinase activities. [provided by RefSeq, Sep 2010]

Transcript Variant: This variant (4, also known as DCL (PMID: 17313568)) is produced from the 5' promoter. It lacks several 3' exons but has an alternate 3' exon, as compared to variant 5. The resulting isoform (4) has a shorter and distinct C-terminus, and lacks a serine/proline-rich domain and a protein kinase domain, as compared to isoform 5. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.