

## Product datasheet for **MG226415**

### **Dclk1 (NM\_001195539) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dclk1 (NM_001195539) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dclk1
Synonyms:	1700113D08Rik; 2810480F11Rik; AI836758; Clic; Click-I; CPG1; Cpg16; Dc; Dcamk; Dcamk11; Dcl; Dclk; mKIAA0369
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG226415 representing NM\_001195539  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTAGAGCTCATAGAAGTTAATGGAACCCCTGGTAGTCAGCTCTCTACTCCACGCTCGGGCAAGTCAC  
 CAAGTCCATCACCCACCAGCCCAGGAAGCCTGCGGAAGCAGAGGATCTCTCAGCATGGCGGCTCCTCGAC  
 TTCACCTTTCATCCACTAAAGTTTGCAGCTCAATGGATGAGAATGATGGCCCTGGGGAAGGTGATGAGCTT  
 GGGAGAAGGCACAGCTTGCAGAGGGGATGGAGGAGGGAAGAGTCTGAGGAAGGCTTCCAGATTCCTGCCA  
 CAATAACAGAGAGATACAAAGTCGGGAGAACAAATAGGAGACGGAAATTTTGTGTGCAAGGAATGTAT  
 AGAGAGGTCGACTGCTCGGGAGTATGCCCTGAAAATCATCAAGAAAAGCAAATGCCGAGGCAAAGAGCAC  
 ATGATCCAGAACGAGGTCTCCATCTACGGAGGGTGAAGCACCCCAACATTGTCTCCTGATTGAAGAGA  
 TGGATGTGCCGACTGAAGTGTATCTTGAATGGAATTAGTGAAGGGTGGAGACCTTTTCGATGCCATCAC  
 CTCCTACTAGCAAATACACAGAGAGAGATGCCAGCGGGATGCTGTACAACCTGGCCAGCGCCATCAAATAC  
 CTGCACAGCCTGAACATCGTCCACCGTGACATCAAGCCAGAGAATCTGCTGGTGTATGAGACCAGGATG  
 GCAGTAAGTCACTCAAGTTGGGTGACTTTGGCCTGGCCACAATTGTGACGGCCCCCTGTACACAGTCTG  
 TGGCACCCCAACATATGTGGCTCCAGAAATCATTGCAGAGACTGGATATGGCCTCAAGGTGGACATCTGG  
 GCAGCTGGCGTGATCACTTATATCTGTGTGTGGCTTCCCTCCGTTCCGTGGAAGTGGGGATGACCAGG  
 AGGTGCTTTTTGACCAGATCTTGATGGGCCAAGTGGACTTTCCATCTCCGTATTGGGACAATGTGTCAGA  
 TTCTGCTAAGGAGCTCATCAACATGATGCTGTTGGTTAACGTGGACCAGAGATTTTCAGCCGTGCAGGTC  
 CTTGAGCATCCCTGGGTTAATGATGATGGTCTCCAGAAAATGAGCATCAGCTGTGAGTGTGAGTGGCAAAA  
 TCAAGAAGCATTCAACACAGGCCCAAGCCGAGCAGCACTGCAGCAGGAGTTTCTGTAATAGCAACCAC  
 CGCTCTTGATAAGGAGAGGCAGGTTTTCCGACGAAGACGCAACCAGGATGTGAGGAGCCGGTACAAGGCG  
 CAGCCAGCTCCACCGGAATTGAACTCGGAATCGGAGGACTACTCCCCAGCTCCTCTGAGACTGTTGCT  
 CCCCCAATTCGCCCTTT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG226415 representing NM\_001195539  
 Red=Cloning site Green=Tags(s)

MLELIEVNGTPGSQLSTPRSGKSPSPSPTSPGSLRKQRISQHGGSSTLSSTKVCSSMDENDGPGEGDEL  
 GRRHSLQRGWRREESEEGFQIPATITERYKVGRTIGDGNFVVKECIERSTAREYALKI IKKSKCRGKEH  
 MIQNEVSI LRRVKHPNIVLLIEEMDVPTELYLMELVKGGDLFDAITSTSKYTERDASGMLYNLASAIKY  
 LHSLNIVHRDIKPENLLVYEHQDGSKSLKLGDFGLATIVDGPLYTVCGTPTYVAPEIIAETGYGLKVDIW  
 AAGVITYILLCGFPPFRGSGDDQEVLFQILMGQVDFPSPYWDNVSDSAKELINMMLLVNVDQRFSAVQV  
 LEHPWVNDGLPENEHQLSVAGKIKKHFNTGPKPSSTAAGVSVIATTALDKERQVFRRRRNQDVRSRYKA  
 QPAPPELNSESEDYSPSSSETVRSPPNSPF

**TRTRPLE** – GFP Tag – V

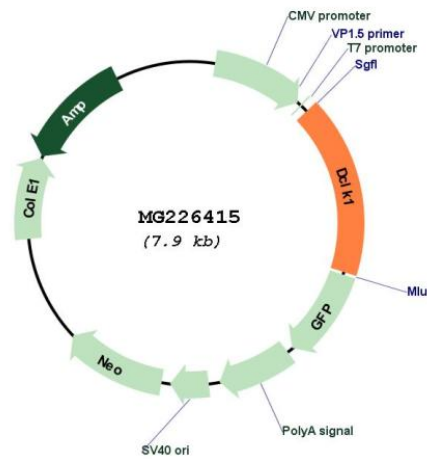
**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001195539

ORF Size: 1347 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\\_001195539.2](#)

**RefSeq Size:** 7004 bp

**RefSeq ORF:** 1350 bp

**Locus ID:** 13175

**Cytogenetics:** 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]