

## Product datasheet for **MG226384**

### **Dclk2 (NM\_001195499) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dclk2 (NM_001195499) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dclk2
Synonyms:	6330415M09Rik; AU044875; CL2; Clic; Click-II; CLICK2; Dcamk; Dcamk12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG226384 representing NM\_001195499  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAGCACAAAGGAGCATTGAGCTGGAACATTTTGAAGAACGGGACAAAAGGCCGCGCCAGGGTCAC  
 GGAGAGGGGCTCCAGCTCCTCCGGGGCAGCAGCATCTCTGGCCCAAGGGCAACGGGCTCATCCCAG  
 CCCGGCGCACAGTGCTCACTGCAGCTTCTACCGCACGCGGACCTTGCAGGCCCTCAGCTCGGAGAAGAAG  
 GCCAAGAAGGCGCGGTTCTACCGGAATGGGGACCCTATTTCAAAGGCCTGGTCTTTGCCATCTCCAACG  
 ACCGTTTCCGTTCTTCGATGCGCTCCTCATAGAGCTCACCCGCTCACTGTCTGACAATGTGAACCTGCC  
 CCAGGGCGTCCGACCCTACACCATAGACGGCAGCCGGAAGGTCACCAGCCTGGACGAGCTGTGGAA  
 GGTGAAAGTTACGTGTGCCTCCAACGAACATTTTCGTAAGTTGATTACACAAAAACGTTAATCCGA  
 ACTGGTCTGTGAACATCAAGGGCGGAACACCCGACCCTGGCCGTGGCCTCTCGGAAGAGTGAGGTGAA  
 AGAAGCAAAGACTTCATTAACCAAGTTAGTACTGTGATTGAAAGCGGAGTGAAGCCTAGAAGGCC  
 GTGCGGATCCTTCTGAATAAAAAGACTGCCATTCTTTGAGCAGGTCTTAACAGATATACCGAAGCCA  
 TTAACACTAGACTCAGGCGTGGTCAAGAGGCTGTGCACCCTGGATGGAAAGCAGGTTACTTGTCTGCAAGA  
 CTTTTTTGGAGACGATGATGTTTTATTGCATGTGGACCTGAAAAATATCGTTATGCCAAAGATGACTTT  
 GTCCTGGATCATAGCGAATGCCGTGTCTGAAATCGTCTACTCTCGAGCCTCAGCTGCGAAGTATTCTG  
 GATCCAGAAGCCCAGGGTTCTCCCGCCGACGAAGTACCAGCTTCAGTAAAGAGGGCTGGCCACTCCAG  
 TGCCTATTCTACAGCCAAATCCCAGTGAATGAACTCCCAGTAGCCAGCTTCCACTCCGAAGTCCACC  
 AAGTCTCCAGCTCCTCTCAACCAGCCGGAAGTTTTCAGAGGATTGAAGATTTCTGCTCAGGGCAGAT  
 CTTCTTCAACGTAAACGGTGGGCTGAACTTGACCGTTGCCTGAGCCCTGAAGGTGTAATGAAACCG  
 GTGCTCCGAGTCGTTCCCTTCTGGAGAAATACAGAATAGGGAAGGTCATCGGGGACGGCAACTTCGCG  
 GTAGTTAAGGAGTGCGTGGACAGGTACACTGGAAAAGAGTTTGCATTAAGATTATAGACAAAGCCAAAT  
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 CATGTTGGTTGAAGAGATGGAACAGCAACTGACCTCTTCTAGTGATGGAAGTGGTCAAAGGTGGAGAT  
 CTCTTTGATGCGATTACCTTTCAACCAAGTACACTGAGAGAGATGGAAGCGCCATGGTGTACAACCTAG  
 CCAATGCCCTCCGGTACCTGCACAGCCTCAGCATCGTCCACAGGGACATCAAGCCTGAGAATCTGCTGGT  
 GTGCGAATACCCAGATGGAACCAAGTCTTTGAAGCTGGGAGACTTTGGGCTGGCGACGGTGGTTGAAGGC  
 CCGTTGTACACGGTCTGTGGCACGCCAACTTATGTGGCACCAGAGATCATAGCTGAAACAGGTTATGGCC  
 TGAAGGTGGATGTTGGGAGCTGGTGTGATTACATACATACTTCTCTGTGGATTCCACCATTCGGAG  
 TGAGAACAATCTCCAGGAAGATCTTTGACCAGATCTTGGCTGGAAAGCTGGAATTCACAGCCCTAC  
 TGGGACAACATTACAGACTCTGCCAAGGAGTAAATCAGTCAAATGCTTCAGGTAAACGTTGAAGCTCGCT  
 GTACTGCGGGAGAAATCTGAGTCACCCCTGGGTGTCAGATGATGCATCCAGGAGAACAATATGCAAGC  
 CGAGGTTACAGGTAACATAAACAGCACTTTAATAATGCGCTCCCAACAGAACAGCACCACCACCGGG  
 GTCTCCGTTATCATGGTCCAAGGCCATGAACACGGCTCTAGA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >MG226384 representing NM\_001195499  
Red=Cloning site Green=Tags(s)

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MASTRSIELEHFEERDKRPRPGSRRGAPSSSGGSSISGPKGNGLIPSPAHSAHCSFYRTRTLQALSSEKK
AKKARFYRNGDRYFKGLVFAISNDRFRSFDALLIELTRSLSDNVNLPQGVRTIYITIDGSRKVTSLDELLE
GESYVCASNEPFRKVDYTKNVNPNWSVNIKGGTTRTLAVASAKSEVKESKDFIKPKLVTVIRSGVKPRKA
VRILLNKKTAHSFEQVLTDITEAIKLD SGVVKRLCTLDGKQVTC LQDFFGDDDFIACGPEKYRYAQDDF
VLDHSECRVLKSSYSRASAAKYSGSRSPGF SRRSKSPASVKRAGHSSAYSTAKSPVNGTPSSQLSTPKST
KSSSSSPTSPGSFRGLKISAQGRSSSNVNGPELDRCLSPEGVNGNRCSESFPLLEKYRIGKIVIGDNFA
VYKECVDRYTGKEFALKIIDKAKCCGKEHLIENEVSILRRVKHPNIIMLVEEMETATDLFLVMELVKGGD
LFDAITSSTKYTERDGSAMVYNLANALRYLHLSIVHRDIKPENLLVCEYDPGKSLKLGDFGLATVVEG
PLYTVCGTPTYVAPEIIAETGYLKVVDVAAGVITYILLCGFPPFRSENNLQEDLFDQILAGKLEFPAPY
WDNITDSAKELISQMLQVNVEARCTAGEILSHPWVSDDASQENNMQA EVTGK LKQHFNNALPKQNSTTTG
VSVIMVQGHGHSR
    
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001195499

**ORF Size:** 2142 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\\_001195499.1](#), [NP\\_001182428.1](#)

**RefSeq Size:** 4105 bp

**RefSeq ORF:** 2145 bp

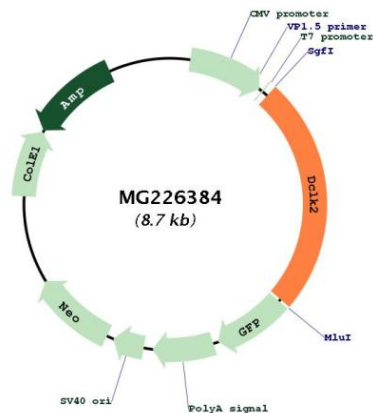
**Locus ID:** 70762

**UniProt ID:** [Q6PGN3](#)

**Cytogenetics:** 3 F1

**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>/calmoduline-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. This gene and the DCX gene, another family member, share function in the establishment of hippocampal organization and their absence results in a severe epileptic phenotype and lethality, as described in human patients with lissencephaly. Multiple alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Sep 2010]

### Product images:



Circular map for MG226384