

## Product datasheet for **MG226382**

### **Dclk2 (NM\_001195496) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dclk2 (NM_001195496) 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:**

>MG226382 representing NM\_001195496  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAGCACAAAGGAGCATTGAGCTGGAACATTTTGAAGAACGGGACAAAAGGCCGCGCCAGGGTCAC  
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**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

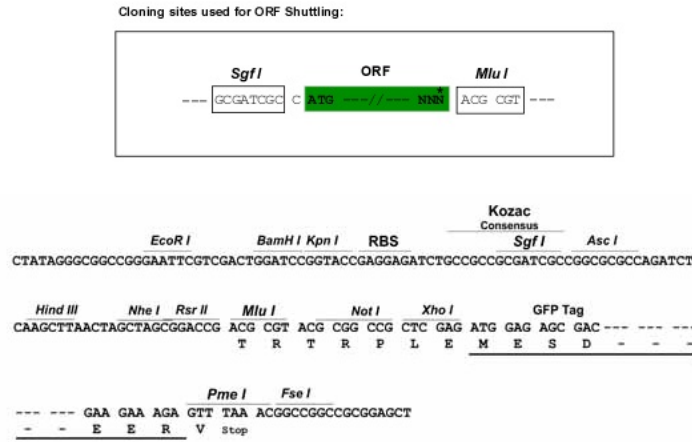
**Protein Sequence:** >MG226382 representing NM\_001195496  
 Red=Cloning site Green=Tags(s)

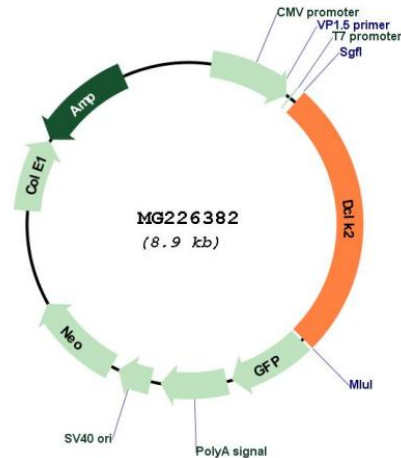
MASTRSIELEHFEERDKRPRPGSRRGAPSSSSGGSSISGPKGNGLIPSPAHSAHCSFYRTRTLQALSSEKK  
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 GESYVCASNPFKVDYTKNVNPNWSVNIKGGTTRTLAVASAKSEVKESKDFIKPKLVTVIRSGVKPRKA  
 VRILLNKKTAHSFEQVLTDITEAIKLD SGVVKRLCTLDGKQVTC LQDFFGDDDFIACGPEKYRYAQDDF  
 VLDHSECRVLKSSYSRASAAYSGSRSPGFSRRSKSPASVKRAGHSSAYSTAKSPVNGTPSSQLSTPKST  
 KSSSSPTSPGSRGLKISAQGRSSSNVNGPELDRCLSPEGVNGNRCSESFPLLEKYRIGKVIKIGDGNFA  
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 PLYTVCGTPTYVAPEIIAETGYLKVVDVWAAGVITYILLCGFPPFRSENNLQEDLFDQILAGKLEFPAPY  
 WDNITDSAKELISQMLQVNVEARCTAGEILSHPWVSDDASQENNMQA EVTGK LKQHFNNALPKQNSTTTG  
 VSVIMNTALDKEGQIFCSKLCQDSSRPSREQTSPVPPSAQEAPPPLESPRPPGPPATSGCDLAGTWRRHR  
 D

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001195496

**ORF Size:** 2313 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\\_001195496.1](#), [NP\\_001182425.1](#)

**RefSeq Size:** 4092 bp

**RefSeq ORF:** 2316 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]