

Product datasheet for **RG219994**

DCAMKL2 (DCLK2) (NM_001040261) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DCAMKL2 (DCLK2) (NM_001040261) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DCAMKL2
Synonyms:	CL2; CLICK-II; CLICK2; CLIK2; DCAMKL2; DCDC3; DCDC3B; DCK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG219994 representing NM_001040261
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCAGCACCAGGAGTATCGAGCTGGAGCACTTTGAGGAACGGGACAAAAGGCCGCGCCGGGTGCG
 GGAGAGGGGCCCCAGCTCCTCCGGGGCAGCAGCAGCTCGGGCCCAAGGGGAACGGGCTCATCCCCAG
 TCCGGCGCACAGTGCCCACTGCAGCTTCTACCGCACGCGGACCCTGCAGGCCCTCAGCTCGGAGAAGAAG
 GCCAAGAAGGCGCGCTTCTACCGGAACGGGGACCCTACTTCAAGGGCCTGGTGTGGCCATCTCCAGCG
 ACCGCTCCGGTCTTCGATGCGCTCCTCATAGAGCTCACCCGCTCCCTGTCGGACAACGTGAACCTGCC
 CCAGGGTGTCCGCACTATCTACACCATCGACGGCAGCCGGAAGGTACCAGCCTGGACGAGCTGTGGAA
 GGTGAGAGTTACGTGTGCATCCAATGAACATTTTCGTAAGTCGATTACACAAAAATTAATCCAA
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 AGACTTTTTGGTGATGACGATGTTTTATTGCATGTGGACCAGAAAAATTTTCGTTATGCCCAAGATGAC
 TTTGTCCTGGATCATAGTGAATGTCGTGCTGAAGTCATCTTATTCTCGATCCTCAGCTGTTAAGTATT
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 TGGAAACAGATGCTCTGAATCATCAACTTCTTGAGAAATACAAAATTGGAAAGGTCATTGGTGATGGC
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 GTCAAGACAGCGGAGGCTGGGATGGAGCCATCTCTCCAGTTCTCCCTCAGTGGAGGAGATCCCTGT
 GCCTGGGAAGCAGTCCCGGCCCCACCCCTCCGGAATCTCCACCCCCACCCTCTCCGCTGCCCGG
 GGTGGTGAAGCGGGCAGGAACCTGGCGCCGCCACCGAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219994 representing NM_001040261
Red=Cloning site Green=Tags(s)

MASTRSIELEHFEERDKRPRPGSRRGAPSSSSGGSSSSGPKGNGLIPSPAHSAHCSFYRTRTLQALSSEKK
AKKARFYRNGDRYFKGLVFAISSDRFRSFDALLIELTRSLSDNVNLPQGVRTIYITIDGSRKVTSLDELLE
GESYVCASNEPFRKVDYTKNINPNWSVNIKGGTSRALAAASSVKSEVKESKDFIKPKLVTVIRSGVKPRK
AVRILLNKKTAHSFEQVLTDITEAIKLD SGVVKRLCTLDGKQVTCLQDFFGDDDFIACGPEKFRYAQDD
FVL DHSECRVLKSSYSRSSAVKYSGSKSPGPSRRSKSPASVKRGGHYSSAYSTAKSPVNGTPSSQLSTPK
STKSSSSSPTSPGSFRGLKQISAHGRSSSNVNGGPELDRCISPEGVNGNRCSESSTLLEKYKIGKVIKIGDG
NFAVVKECIDRSTGKEFALKIIDKAKCCGKEHLIENEVSILRRVKHPNIIMLVEEMETATELFLVMELVK
GGDLFDAITSSTKYTERDGSAMVYNLANALRYLHGLSIVHRDIKPENLLVCEYPDGTKSLKLGDFGLATV
VEGPLYTVCGTPTYVAPEIIAETGYGLKVDIWAAGVITYILLCGFPPFRSENNLQEDLFDQILAGKLEFP
APYWDNITDSAKELISQMLQVNVEARCTAGQILSHPWVSDDASQENMQAEVTGKLGKQHFNNALPKQNST
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GGERAGTWRRHRD

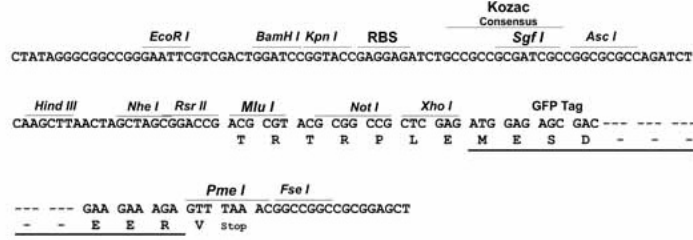
TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja2714_a12.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_001040261
ORF Size: 2349 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001040261.5](#)

RefSeq Size: 4316 bp

RefSeq ORF: 2352 bp

Locus ID: 166614

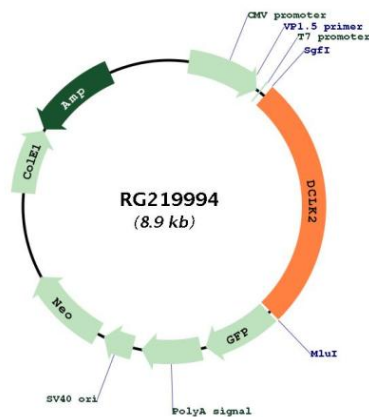
UniProt ID: [Q8N568](#)

Cytogenetics: 4q31.23-q31.3

Protein Families: Druggable Genome, Protein Kinase

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 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 encoded protein is independent of its protein kinase activity. Mouse studies show that the DCX gene, another family member, and this gene share function in the establishment of hippocampal organization and that their absence results in a severe epileptic phenotype and lethality, as described in human patients with lissencephaly. Multiple alternatively spliced transcript variants have been identified. [provided by RefSeq, Sep 2010]

Product images:


Circular map for RG219994