OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RR209497

Dclk2 (NM_001009691) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dclk2 (NM_001009691) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dclk2
Synonyms:	CL2; CLICK-II; CLICK2; Dck2; RGD1308384
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR209497 representing NM_001009691
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGCACCAGGAGCATTGAGCTGGAACATTTTGAAGAACGGGACAAAAGGCCGCGGCCAGGGTCGC
GGAGAGGAGCTCCCAGCTCCTCCGGGGGCAGCAGCATCTCTGGCCCCAAGGGCAACGGGCTCATCCCCAG
CCCGGCGCACAGTGCTCACTGCAGCTTCTACCGCACGCGGACCTTGCAGGCCCTCAGCTCGGAGAAGAAG
GCCAAGAAGGCGCGGTTCTACCGGAATGGGGACCGCTACTTCAAAGGCCTGGTCTTTGCGATCTCCAGCG
ACCGTTTCCGTTCCTTCGATGCGCTCCTCATAGAGCTCACCCGCTCGCTGTCTGACAATGTGAACCTGCC
CCAGGGCGTCCGCACAATCTACACCGTAGACGGCAGCCGGAAGGTCACCAGCCTGGACGAGCTGCTGGAA
GGTGAAAGTTACGTGTGTGCCTCCAACGAACCATTCCGTAAAGTTGACTACACCAAAAACGTTAACCCGA
ACTGGTCTGTGAACATCAAGGGTGGTACTACCCGCACCTTGGCCGTGGCCTCGGCCAAGAGTGAGGTGAA
AGAAAGCAAGGACTTCATCAAACCCAAGCTCGTGACTGTGATTCGAAGTGGGGTGAAGCCTAGAAAGGCC
GTGCGCATCCTTCTGAATAAAAAGACTGCCCATTCCTTTGAGCAGGTCCTAACGGATATCACCGAAGCCA
TTAAACTAGACTCCGGCGTGGTGAAGAGGCTGTGCACCCTGGATGGAAAGCAGGTTACTTGTCTGCAAGA
CTTTTTTGGAGACGATGATGTTTTTATTGCATGTGGACCTGAAAAATATCGTTATGCCCAAGATGACTTT
GTCCTGGATCATAGTGAGTGCCGTGTCCTGAAGTCATCTTATTCTCGGGCCTCAGCTGCTAAGTATTCTG
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TGCCTATTCTACAGCCAAATCCCCAGTGAATGGAACTCCCAGCAGCCAGCTTTCCACTCCTAAGTCCACC
AAGTCCTCCAGCTCCTCTCCAACCAGCCCGGGAAGTTTCAGAGGACTGAAGCAGATTTCTGCTCAGGGCA
GATCTTCTTCCAATGTAAACGGTGGGCCCGAACTTGACCGTTGCATGAGTCCTGAAGGCGTGAATGGAAA
CAGGTGCTCCGAGTCATTCACTCTTCTGGAGAAATACAGAATCGGGAAGGTCATCGGAGACGGCAACTTT
GCCGTAGTTAAAGAATGTATGGACAGGTCCACTGGAAAGGAGTTTGCATTAAAGATTATTGACAAAGCCA
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GATCTCTTCGACGCGATCACTTCTTCAACCAAGTACACCGAGAGAGATGGCAGTGCCATGGTGTACAACC
TAGCCAGCGCCCTCAGATACCTGCACGGCCTCAGCATCGTGCACAGAGATATCAAACCTGAGAATCTGCT
GGTGTGCGAATACCCAGACGGAACCAAGTCGCTGAAGCTGGGAGACTTTGGGCTGGCGACGGTGGTTGAA
GGCCCGTTGTACACAGTCTGTGGCACCCCAACTTACGTGGCACCCGAGATCATTGCTGAAACAGGTTACG
GCCTGAAGGTGGATGTTTGGGCAGCTGGTGTGATTACGTACATTCTTCTCTGTGGATTCCCACCGTTCCG
GAGTGAGAACAACCTCCAGGAGGATCTCTTTGACCAGATCTTGGCCGGAAAGCTGGAGTTTCCAGCTCCC
TACTGGGACAACATTACAGACTCTGCCAAGGAGTTAATCAGTCAAATGCTTCAGGTAAACGTTGAAGCTC
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AGCCGAGGTTACAGGTAAACTAAAACAGCACTTTAATAATGCGCTCCCCAAACAGAACAGCACCACCACT
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ACAGCAGCAAATCATCCAGGGAGCAGACCTCAGCCCGGGAGGCCCCGCCCCCACCGGAGTCTCCCAGGCC
CCCTGGTCCTCCAGCCACCTCTGGCTGTGATCCTGCCGGGACCTGGCGTCGCCATCGAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

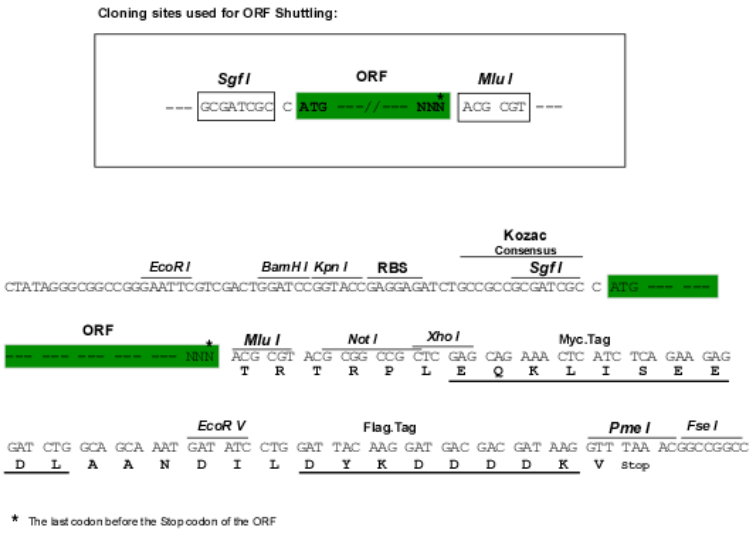
>RR209497 representing NM_001009691
Red=Cloning site Green=Tags(s)

MASTRSIELEHFEERDKRPRPGSRRGAPSSSGGSSISGPKGNGLIPSPAHSAHCSFYRTRTLQALSSEKK
AKKARFYRNGDRYFKGLVFAISSDRFRSFDALLIELTRSLSDNVNLPQGVRTIYTVDGSRKVTSLDELLE
GESYVCASNEPFRKVDYTKNVNPNWSVNIKGGTTRTLAVASAKSEVKESKDFIKPKLVTVIRSGVKPRKA
VRILLNKKTAHSFEQVLTDITEAIKLDSGVVKRLCTLDGKQVTCLQDFFGDDDVFIACGPEKYRYAQDDF
VLDHSECRVLKSSYSRASAAKYSGSRSPGLSRRSKSPASVKRAGHSSAYSTAKSPVNGTPSSQLSTPKST
KSSSSSPTSPGSFRGLKQISAQGRSSSNVNGGPELDRCMSPEGVNGNRCSESFTLLEKYRIGKVIGDGNF
AVVKECMDRSTGKEFALKIIDKAKCCGKEHLIENEVSILRRVKHPNIIMLVEEMETTTELFLVMELVKGG
DLFDAITSSTKYTERDGSAMVYNLASALRYLHGLSIVHRDIKPENLLVCEYPDGTKSLKLGDFGLATVVE
GPLYTVCGTPTYVAPEIIAETGYGLKVDVWAAGVITYILLCGFPPFRSENNLQEDLFDQILAGKLEFPAP
YWDNITDSAKELISQMLQVNVEARCTAGEILSHPWVSDDASQENNMQAEVTGKLKQHFNNALPKQNSTTT
GVSVIMNTALDKEGQVFCSKHCRDSSKSSREQTSAREAPPPPESPRPPGPPATSGCDPAGTWRRHRD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001009691

ORF Size: 2301 bp

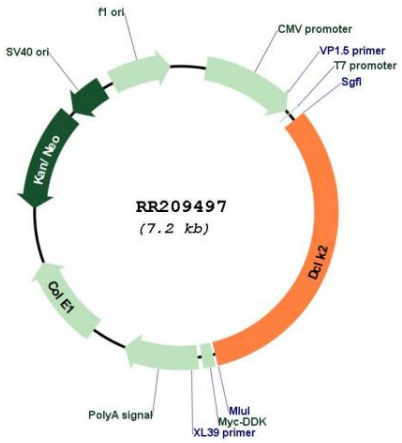
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_001009691.3, NP_001009691.3
RefSeq Size:	3969 bp
RefSeq ORF:	2304 bp
Locus ID:	310698
UniProt ID:	Q5MPA9
Cytogenetics:	2q34
MW:	84 kDa
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+/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. Mouse studies show that this gene and the DCX gene, another family member, 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. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Sep 2010]

Product images:



Circular map for RR209497