

Product datasheet for **RR217138**

Dclk2 (NM_001195832) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dclk2 (NM_001195832) 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)



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ORF Nucleotide
Sequence:

>RR217138 representing NM_001195832
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCCAGCACCAGGAGCATTGAGCTGGAACATTTTGAAGAACGGGACAAAAGGCCGCGCCAGGGTCGC
 GGAGAGGAGCTCCAGCTCCTCCGGGGCAGCAGCATCTCTGGCCCAAGGGCAACGGGCTCATCCCAG
 CCCGGCGCACAGTGCTCACTGCAGCTTCTACCGCACGCGGACCTTGCAGGCCCTCAGCTCGGAGAAGAAG
 GCCAAGAAGGCGCGTTCACCGAATGGGGACCCTACTTCAAAGGCCTGGTCTTTGCGATCTCCAGCG
 ACCGTTCCGTTCTTCGATGCGCTCCTCATAGAGCTCACCCGCTCGCTGTGACAATGTGAACCTGCC
 CCAGGGCGTCCGCACAATCTACACCGTAGACGGCAGCCGGAAGGTACCAGCCTGGACGAGCTGTGAA
 GGTGAAAGTTACGTGTGCCTCCAACGAACCATTCCGTAAGTTGACTACACAAAAACGTTAACCCGA
 ACTGGTCTGTGAACATCAAGGGTGTACTACCCGCACCTTGGCCGTGGCCTCGCCAAGAGTGAGGTGAA
 AGAAAGCAAGGACTTCATCAAACCAAGCTCGTACTGTGATTGGAAGTGGGGTGAAGCCTAGAAAGGCC
 GTGCGCATCCTTCTGAATAAAAAGACTGCCATTCCCTTTGAGCAGGTCTAACGGATATACCGAAGCCA
 TTAACACTAGACTCCGGCGTGGTGAAGAGGCTGTGCACCCTGGATGGAAAGCAGGTTACTTGTCTGCAAGA
 CTTTTTTGGAGACGATGATGTTTTATTGCATGTGGACCTGAAAAATATCGTTATGCCCAAGATGACTTT
 GTCCTGGATCATAGTGAGTGCCGTGTCTGAAGTCATCTTATTCTCGGGCCTCAGCTGCTAAGTATTCTG
 GATCCAGAAGCCCAGGGCTCTCCCGCCGACGAAGTACCAGCTTCAGTAAAGAGGGTGGCCACTCCAG
 TGCCATTCTACAGCCAAATCCCAGTGAATGGAACCTCCAGCAGCCAGCTTCCACTCCTAAGTCCACC
 AAGTCTCCAGCTCCTCTCCAACAGCCCGGAAGTTTTCAGAGGACTGAAGCAGATTTCTGCTCAGGGCA
 GATCTTCTCCAATGTAACGGTGGGCCGGAATTGACCCTGTCATGAGTCTGAAAGCCTGAAAGGAA
 CAGGTGCTCCGAGTCATTCACTCTTCTGGAGAAAATACAGAATCGGGAAGTTCATCGGAGACGGCACTTT
 GCCGTAGTTAAAGAATGTATGGACAGGTCCTGAAAGGAGTTTGCATTAAGATTATTGACAAAAGCCA
 AATGCTGTGAAAGGAACATCTGATTGAGAACGAAGTGTCAATCTGCGCCGGTGAAGCACCCCAACAT
 CATCATGCTGGTTGAGGAGATGAAACAACAACACTGAGCTCTTCTAGTATGGAAGTGGTCAAAGGTGGA
 GATCTCTCGACGCGATCACTTCTCAACCAAGTACCCGAGAGAGATGGCAGTGCCATGGTGTACAACC
 TAGCCAGCGCCCTCAGATACCTGCACGGCCTCAGCATCGTGCACAGAGATATCAAACCTGAGAATCTGCT
 GGTGTGCGAATACCCAGACGGAACCAAGTCTGTAAGCTGGGAGACTTTGGGCTGGCGACGGTGGTTGAA
 GGCCCGTTGTACACAGTCTGTGGCACCCCAACTTACGTGGCACCCGAGATCATTGCTGAAACAGGTTACG
 GCCTGAAGGTGGATGTTGGGCAGCTGGTGTGATTACGTACATCTTCTCTGTGGATTCCCACCGTCCG
 GAGTGAGAACAACCTCCAGGAGGATCTCTTTGACCAGATCTTGGCCGAAAGCTGGAGTTTCCAGCTCCC
 TACTGGGACAACATTACAGACTCTGCCAAGGAGTTAATCAGTCAAATGCTTCAGGTAAACGTTGAAGCTC
 GCTGTACTGCGGGAGAAATTCTGAGTACCCCTGGGTGTGAGATGATGCATCCCAGGAGAATAATATGCA
 AGCCGAGGTTACAGGTAACATAAACAGCACTTAATAATGCGCTCCCAACAGAACAGCACCACCCT
 GGGTCTCCGTTATCATGGTCCAAGGCCATGAACACGGCTCTAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR217138 representing NM_001195832
 Red=Cloning site Green=Tags(s)

MASTRSIELEHFEERDKRPRPGSRRGAPSSSSGGSSISGPKGNGLIPSPAHSACSFYRTRTLQALSSEKK
 AKKARFYRNGDRYFKGLVFAISSDRFRSFDALLIELTRSLSDNVNLPQGVRTIYTVDGSRKVTSLEDELLE
 GESYVVCASNEPFRKVVDYTKNVNPNWSVNIKGGTTRTLAVASAKSEVKESKDFIKPKLVTVIRSGVKPRKA
 VRILLNKKTAHSFEQVLTDITEAIKLD SGVVKRLCTLDGKQVTC LQDFFGDDDFIACGPEKYRYAQDDF
 VLDHSECRVLKSSYSRASAAKYSGSRSPGLSRRSKSPASVKRAGHSSAYSTAKSPVNGTPSSQLSTPKST
 KSSSSSPTSPGSFRGLKQISAQGRSSSNVNGGPELDRCMSPEGVNGNRCSESFTLLEKYRIGKVIIGDGNF
 AVYKECMDRSTGKEFALKIIDKAKCCGKEHLIENEVSILRRVKHPNIIMLVEEMETTTTELFLVMELVKGG
 DLFDAITSSTKYTERDGSAMVYNLASALRYLHGLSIVHRDIKPENLLVCEYDPGKSLKLGDFLATVVE
 GPLYTVCGTPTYVAPEIIAETGYGLKVDVWAAGVITYILLCGFPPFRSENNLQEDLFDQILAGKLEFPAP
 YWDNITDSAKELISQMLQVNVEARCTAGEILSHPWVSDDASQENMQAEVTGKLGKQHFNNALPKQNSTTT
 GSVVIMVQGHEHGSR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001195832

ORF Size: 2145 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_001195832.1](#), [NP_001182761.1](#)

RefSeq Size: 3982 bp

RefSeq ORF: 2148 bp

Locus ID: 310698

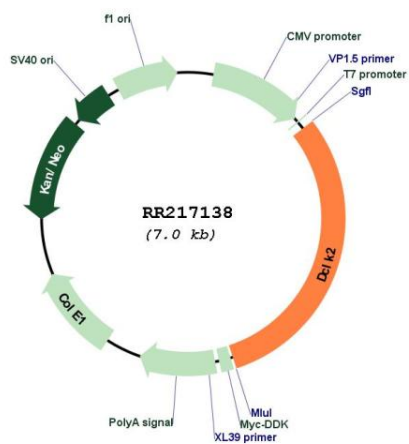
UniProt ID: [Q5MPA9](#)

Cytogenetics: 2q34

MW: 78.4 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 RR217138