

Product datasheet for **RN217138**

Dclk2 (NM_001195832) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dclk2 (NM_001195832) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Dclk2
Synonyms:	CL2; CLICK-II; CLICK2; Dck2; RGD1308384
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN217138 representing NM_001195832
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCAGCACCAGGAGCATTGAGCTGGAACATTTTGAAGAACGGGACAAAAGGCCGCGCCAGGGTCGC
 GGAGAGGAGCTCCAGCTCCTCCGGGGCAGCAGCATCTCTGGCCCAAGGGCAACGGGCTCATCCCAG
 CCCGGCGCACAGTGCTCACTGCAGCTTCTACCGCACGCGGACCTTGCAGGCCCTCAGCTCGGAGAAGAAG
 GCCAAGAAGGCGCGTCTACCGGAATGGGGACCCTACTTCAAAGGCCTGGTCTTTGCGATCTCCAGCG
 ACCGTTTCCGTTCTTCGATGCGCTCCTCATAGAGCTCACCCGCTCGCTGTGACAATGTGAACCTGCC
 CCAGGGCGTCCGCACAATCTACACCGTAGACGGCAGCCGGAAGGTCACCAGCCTGGACGAGCTGTGGAA
 GGTGAAAGTTACGTGTGTGCCTCCAACGAACCATTCCGTAAAGTTGACTACACAAAAACGTTAACCCGA
 ACTGGTCTGTGAACATCAAGGGTGTACTACCCGCACCTTGGCCGTGGCCTCGCCAAGAGTGAGGTGAA
 AGAAAGCAAGGACTTCATCAAACCAAGCTCGTACTGTGATTGGAAGTGGGGTGAAGCCTAGAAAGGCC
 GTGCGCATCCTTCTGAATAAAAAGACTGCCATTCCCTTTGAGCAGGTCTAACGGATATACCGAAGCCA
 TTAACACTAGACTCCGGCGTGGTGAAGAGGCTGTGCACCCTGGATGGAAAGCAGGTTACTTGTCTGCAAGA
 CTTTTTTGGAGACGATGATGTTTTATTGCATGTGGACCTGAAAAATATCGTTATGCCAAAGATGACTTT
 GTCCTGGATCATAGTGAGTGCCGTGTCTGAAGTCATCTTATTCTCGGGCCTCAGCTGCTAAGTATTCTG
 GATCCAGAAGCCCAGGGCTCTCCCGCCGACGAAGTCACCAGCTTCAGTAAAGAGGGCTGGCCACTCCAG
 TGCTATTCTACAGCCAAATCCCAGTGAATGGAACCTCCAGCAGCCAGCTTCCACTCCTAAGTCCACC
 AAGTCTCCAGCTCCTCTCCAACCGCCGGAAGTTTCAGAGGACTGAAGCAGATTTCTGCTCAGGGCA
 GATCTTCTCCAATGTAACCGTGGGCGCAACTTGACCGTTGCATGAGTCTGAAGCGCTGAATGGAAA
 CAGGTGCTCCGAGTCATTCACTTCTGGAGAAAACAGAAATCGGAAGGTCATCGGAGACGGCACTTT
 GCCGTAGTTAAAGAATGTATGGACAGGTCCTGAAAGGAGTTTGCATTAAGATTATTGACAAAAGCCA
 AATGCTGTGAAAGGAACATCTGATTGAGAACGAAGTGTCAATCCTGCGCCGGTGAAGCACCCCAACAT
 CATCATGCTGGTTGAGGAGATGGAACAACAACACTGAGCTCTTCTAGTATGGAAGTGGTCAAAGGTGGA
 GATCTCTCGACGCGATCACTTCTCAACCAAGTACCCGAGAGAGATGGCAGTGCCATGGTGTACAACC
 TAGCCAGCGCCCTCAGATACCTGCACGGCCTCAGCATCGTGCACAGAGATATCAAACCTGAGAATCTGCT
 GGTGTGCGAATACCCAGACGGAACCAAGTCGCTGAAGCTGGGAGACTTTGGGCTGGCGACGGTGGTTGAA
 GGCCCGTTGTACACAGTCTGTGGCACCCCAACTTACGTGGCACCCGAGATCATTGCTGAAACAGGTTACG
 GCCTGAAGGTGGATGTTGGGCAGCTGGTGTGATTACGTACATCTTCTCTGTGGATTCCCACCGTTCCG
 GAGTGAGAACAACCTCCAGGAGGATCTCTTTGACCAGATCTTGGCCGAAAGCTGGAGTTTCCAGCTCCC
 TACTGGGACAACATTACAGACTCTGCCAAGGAGTTAATCAGTCAAATGCTTCAGGTAAACGTTGAAGCTC
 GCTGTACTGCGGGAGAAAATTCTGAGTCAACCCTGGGTGTCAGATGATGCATCCCAGGAGAATAATATGCA
 AGCCGAGGTTACAGGTAACATAAACAGCACTTAATAATGCGCTCCCAACAGAACAGCACCACCCT
 GGGTCTCCGTTATCATGGTCCAAGGCCATGAACACGGCTCTAGAT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001195832
Insert Size: 2148 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001195832.1</u> , <u>NP_001182761.1</u>
RefSeq Size:	3982 bp
RefSeq ORF:	2148 bp
Locus ID:	310698
UniProt ID:	<u>Q5MPA9</u>
Cytogenetics:	2q34
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) is an exon-5-containing and exon-17-containing transcript (PMIDs:15611072 and 18075264). It has an additional exon in the 3' region, which results in frame-shift, as compared to variant 2. The resulting isoform (a) has a shorter and different C-terminus, as compared to isoform b. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>