

Product datasheet for **MR226414**

Dclk1 (NM_001195538) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dclk1 (NM_001195538) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dclk1
Synonyms:	1700113D08Rik; 2810480F11Rik; AI836758; Clic; Click-I; CPG1; Cpg16; Dc; Dcamk; Dcamk11; Dcl; Dclk; mKIAA0369
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR226414 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCGTTTCGGCAGAGATATGGAGTTGGAGCATTTTATGAGCGGACAAGGCGCAGAGGTACAGCAGGG
GGTCCCCTGTGAATGGCCTGCCAGCCCCACACAGCGCCCACTGCAGCTTCTACCGCACCCGCACCCCT
GCAGACGCTCAGCTCCGAGAAGAAGCCAAAGAAGTTCGATTCTACAGAAATGGTGACCGCTACTTCAAA
GGAATTGTGATGCCATCTCCCCAGACCCTTCAGATCTTTCGAGGCCCTGCTGGCTGATTTGACCCGAA
CTCTCTCGGATAATGTGAATTTGCCAGGGGGTGAAGCATCTACACCATCGATGGACTCAAGAAGAT
CTCCAGCCTGGACCAGCTGGTGAAGGTGAAAGCTATGTCTGCGGCTCCATCGAGCCCTTAAAGAAGCTG
GAGTACACCAAGAATGTGAACCCCACTGGTCAAGTCAAGACCTCAAGACCCTCAGCCTCCCGCAGTGT
CTTCTTTGGCCACTGCCAAGGTGGGCCCTTCGGAGGTTCCGGGAGAATAAGGATTTTATTGACCCAAAGT
GGTCACCATCATCAGAAGTGGGGTGAAGCCACGGAAGGCTGTGAGAATCTGCTGAACAAGAAGACGGCT
CACTCCTTCGAGCAGGTTCTCACTGACATTACCGACGCTATCAAGCTGGACTCCGGTGTGGTGAAGCGCC
TGTACACTCTGGATGGGAAGCAGGTGATGTGCCTTCAGGACTTTTTTGGTACGATGACATTTTTATTGC
ATGTGGACCAGAGAAGTCCGTTACCAGGATGATTTCTTGTAGATGAAAGTGAATGTCGAGTGGTGAAA
TCAACTTCTTACACAAAATAGCATCAGCGTCCCGCAGAGGCACAACCAAGAGCCAGGACCTTCCCGGA
GAAGCAAGTCCCCAGCCTCCACCAGCTCAGTAAATGGAACCCCTGGTAGTCAGCTCTCTACTCCACGCTC
GGCAAGTACCAAGTCCATCACCCAGCCAGGAAGCCTGCGGAAGCAGAGGATCTCTCAGCATGGC
GGCTCCTCGACTTCACTTTCATCCACTAAAGTTTGCAGCTCAATGGATGAGAATGATGGCCTGGGAAG
AAGAGTCTGAGGAAGGCTTCCAGATTCCTGCCACAATAACAGAGAGATACAAAGTCCGGGAGAACAATAGG
AGACGGAAATTTTGTGTTGTCAAGGAATGTATAGAGAGGTCGACTGCTCGGGAGTATGCCCTGAAATC
ATCAAGAAAAGCAAATGCCGAGGCAAAGAGCACATGATCCAGAACGAGGTCTCCATCCTACGGAGGGTGA
AGCACCCCAACATTGTCCTCCTGATTGAAGAGATGGATGTGCCGACTGAACTGTATCTTGAATGGAATT
AGTGAAGGGTGGAGACCTTTTCGATGCCATCACCTCCACTAGCAAATACACAGAGAGAGATGCCAGCGGG
ATGCTGTACAACCTGGCCAGCGCCATCAAATACCTGCACAGCCTGAACATCGTCCACCGTACATCAAGC
CAGAGAATCTGCTGGTGTATGAGCACCAGGATGGCAGTAAAGTCACTCAAGTTGGGTGACTTTGGCCTGGC
CACAATTGTGACGGCCCCCTGTACACAGTCTGTGGCACCCCAACATATGTGGCTCCAGAAATCATTGCA
GAGACTGGATATGGCCTCAAGGTGGACATCTGGGCAGCTGGCGTGATCACTTATATCCTGCTGTGTGGCT
TCCCTCCGTTCCGTGGAAGTGGGGATGACCAGGAGGTGCTTTTTGACCAGATCTTGATGGCCAAGTGGA
CTTTCCATCTCCGTATTGGGACAATGTGTCAGATTTCTGCTAAGGAGCTCATCAACATGATGCTGTTGGTT
AACGTGGACCAGAGATTTTCAGCCGTGCAGGTCCTTGAGCATCCCTGGGTTAATGATGATGGTCTCCAG
AAAATGAGCATCAGTGTGAGTGGCAAAAATCAAGAAGCATTTCAACACAGGCCCAAGCCGAGCAG
CACTGCAGCAGGAGTTTCTGTAATAGCAACCACCGCTCTTGATAAGGAGAGGCAGGTTTTCCGACGAAGA
CGCAACCAGGATGTGAGGAGCCGGTACAAGGCGCAGCCAGCTCCACCGGAATTGAACTCGGAATCGGAGG
ACTACTCCCCAGCTCCTCTGAGACTGTTGCTCCCCCAATTGCCCCTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR226414 protein sequence
 Red=Cloning site Green=Tags(s)

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MSFGRDMELEHFDERDKAQRYSRGSRVNGLPSPTHSAHCSFYRTRTLQTLSEKKAKKVRFYRNGDRYFK
GIYYAISPDRFRSFEALLADLTRLSDNVNLPQGVRTIYIDGLKKISSLDQLVEGESYVCGSIEPFKLL
EYTKNVNPNWSVNVKTTASRAVSSLATAKGGPSEVRENKDFIRPKLVTIIRSGVKPRKAVRILLNKKTA
HSFEQVLTDITDAIKLDSGVVKRLYLTDGKQVMCLQDFFGDDDFIACGPEKFRYQDDFLLDESECRVVK
GSSTLSSTKVCSSMDENDGPGEESEEGFQIPATITERYKVGRTIGDGNFAVVKECIERSTAREYALKI
IKKSKCRGKEHMIQNEVSILRRVKHPNIVLLIEEMDVPTELYLMELVKGGDLFDAITSTSKYTERDASG
MLYNLASAIKYLHSLNIVHRDIKPENLLVYEHQDGSKSLKLGDFGLATIVDGLYTVCGTPTYVAPEIIA
ETGYGLKVDIWAAGVITYILLCGFPPFRGSGDDQEVLFQILMGQVDFPSPYWDNVSDSAKELINMMLLV
NVDQRFSAVQVLEHPWVNDGLPENEHQLSVAGKIKKHFNTGPKPSSTAAGVSVIATTALDKERQVFRRR
RNQDVRORYKAQPAPPELNSESEDYSPSSSETVRSNPSPF
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001195538

ORF Size: 2223 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_001195538.1](#), [NP_001182467.1](#)

RefSeq Size: 7817 bp

RefSeq ORF: 2223 bp

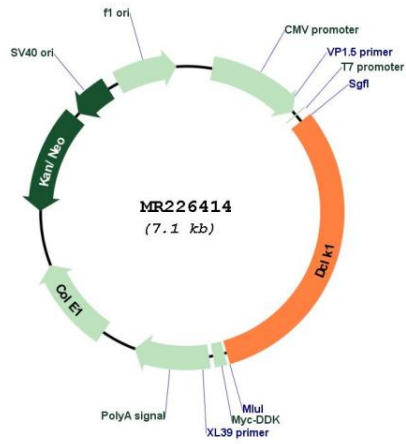
Locus ID: 13175

Cytogenetics: 3 C

MW: 82.2 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⁺/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. The encoded protein is involved in several different cellular processes, including neuronal migration, retrograde transport, neuronal apoptosis and neurogenesis. This gene is up-regulated by brain-derived neurotrophic factor and associated with memory and general cognitive abilities. Multiple transcript variants generated by two alternative promoter usage and alternative splicing have been found, but the biological validity of some variants has not been determined. These variants encode different isoforms, which are differentially expressed and have different kinase activities. [provided by RefSeq, Sep 2010]

Product images:



Circular map for MR226414