

Product datasheet for **MR226410**

Dclk1 (NM_001111051) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dclk1 (NM_001111051) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dclk1
Synonyms:	1700113D08Rik; 2810480F11Rik; AI836758; Clic; Click-I; CPG1; Cpg16; Dc; Dcamk; Dcamkl1; Dcl; Dclk; mKIAA0369
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR226410 representing NM_001111051
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTAGAGCTCATAGAAGTTAATGGAACCCCTGGTAGTCAGCTCTCTACTCCACGCTCGGGCAAGTCAC
 CAAGTCCATCACCCACCAGCCCAGGAAGCCTGCGGAAGCAGAGGATCTCTCAGCATGGCGGCTCCTCGAC
 TTCACCTTTCATCCACTAAAGTTTGCAGCTCAATGGATGAGAATGATGGCCCTGGGGAAGAAGAGTCTGAG
 GAAGGCTTCCAGATTCTGCCACAATAACAGAGAGATACAAAGTCGGGAGAACAATAGGAGACGGAAATT
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 TGTGAGGAGCCGGTACAAGGCGCAGCCAGCTCCACCGGAATTGAACTCGGAATCGGAGGACTACTCCCC
 AGCTCCTCTGAGACTGTTGCTCCCCAATTGCGCCTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226410 representing NM_001111051
 Red=Cloning site Green=Tags(s)

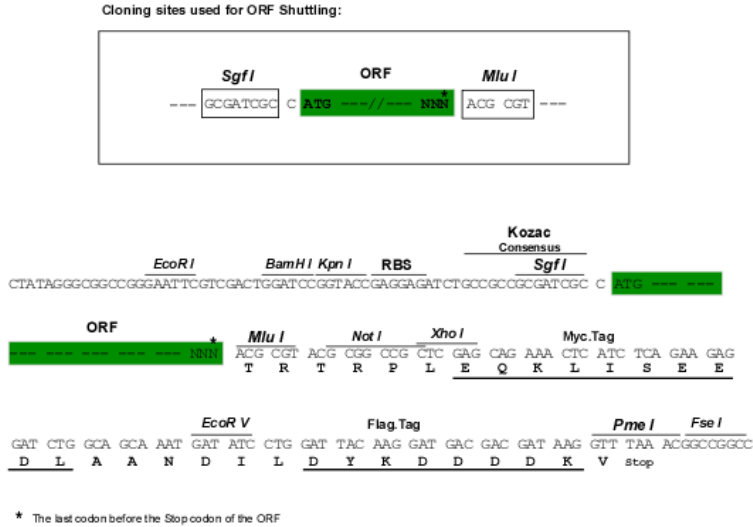
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 IVLLIEEMDVPTL YLVMELVGGDLFDAITSTSKYTERDASGMLYNLASAIKYLHSLNI VHRDIKPENL
 LVYEHQDGSLSLKL GDFGLATIVDGPLYTVCGTPTYVAPEIIAETGYGLKVDIWAAGVITYILLCGFPPF
 RSGSDDQEVLFQILMGQVDFPSPYWDNVSDSAKELINMMLLVNVDQRFSAVQVLEHPWVNDGLPENEH
 QLSVAGIKKHFNTGPKPSSTAAGVSVIATTALDKERQVFRRRRNQDVRSRYKAQPAPPELNSESEDYSP
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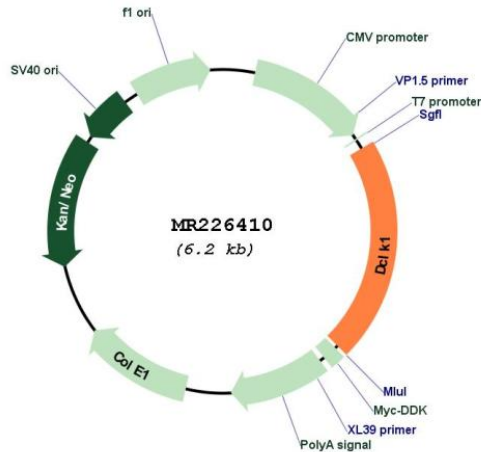
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001111051

ORF Size: 1299 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:	<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_001111051.2</u>
RefSeq Size:	6956 bp
RefSeq ORF:	1302 bp
Locus ID:	13175
Cytogenetics:	3 C
MW:	48.2 kDa
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⁺/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]</p>