

Product datasheet for MC208365

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Dclk1 (NM_001111052) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Dclk1 (NM_001111052) Mouse Untagged Clone

Tag: Tag Free Symbol: Dclk1

Synonyms: 1700113D08Rik; 2810480F11Rik; Al836758; 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



Fully Sequenced ORF:

>MC208365 representing NM_001111052

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTTAGAGCTCATAGAAGTTAATGGAACCCCTGGTAGTCAGCTCTCTACTCCACGCTCGGGCAAGTCAC CAAGTCCATCACCCACCAGCCCAGGAAGCCTGCGGAAGCAGAGGATCTCTCAGCATGGCGGCTCCTCGAC TTCACTTTCATCCACTAAAGTTTGCAGCTCAATGGATGAGAATGATGGCCCTGGGGAAGAAGAGTCTGAG GAAGGCTTCCAGATTCCTGCCACAATAACAGAGAGATACAAAGTCGGGAGAACAATAGGAGACGGAAATT TTGCTGTTGTCAAGGAATGTATAGAGAGGTCGACTGCTCGGGAGTATGCCCTGAAAATCATCAAGAAAAG CAAATGCCGAGGCAAAGAGCACATGATCCAGAACGAGGTCTCCATCCTACGGAGGGTGAAGCACCCCAAC ATTGTCCTCCTGATTGAAGAGATGGATGTGCCGACTGAACTGTATCTTGTAATGGAATTAGTGAAGGGTG CCTGGCCAGCGCCATCAAATACCTGCACAGCCTGAACATCGTCCACCGTGACATCAAGCCAGAGAATCTG CTGGTGTATGAGCACCAGGATGGCAGTAAGTCACTCAAGTTGGGTGACTTTGGCCTGGCCACAATTGTCG ACGGCCCCTGTACACAGTCTGTGGCACCCCAACATATGTGGCTCCAGAAATCATTGCAGAGACTGGATA TGGCCTCAAGGTGGACATCTGGGCAGCTGGCGTGATCACTTATATCCTGCTGTTGTGGCTTCCCTCCGTTC CGTGGAAGTGGGGATGACCAGGAGGTGCTTTTTGACCAGATCTTGATGGGCCAAGTGGACTTTCCATCTC CGTATTGGGACAATGTGTCAGATTCTGCTAAGGAGCTCATCAACATGATGCTGTTGGTTAACGTGGACCA GAGATTTTCAGCCGTGCAGGTCCTTGAGCATCCCTGGGTTAATGATGATGGTCTCCCAGAAAATGAGCAT CAGCTGTCAGTAGCTGGCAAAATCAAGAAGCATTTCAACACAGGCCCCAAGCCGAGCAGCAGCAGCAG GAGTTTCTGTAATAGCACTGGACCACGGGTTTACCATCAAGAGATCAGGGTCTTTGGACTACTACCAACA ACCAGGAATGTATTGGATAAGACCACCGCTCTTGATAAGGAGGCAGGTTTTCCGACGAAGACGCAACC **AGGATGTGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul

ACCN: NM_001111052

Insert Size: 1269 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).

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: <u>NM 001111052.1</u>, <u>NP 001104522.1</u>



Dclk1 (NM_001111052) Mouse Untagged Clone - MC208365

RefSeq Size: 7030 bp
RefSeq ORF: 1269 bp
Locus ID: 13175
Cytogenetics: 3 C

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]

Transcript Variant: This variant (3, also known as DCLK-short-B, DCK-beta1 or KIAA0369-BS) is produced from the 3' promoter. It lacks several 5' exons but has an alternate 5' exon, and has an additional exon in the 3' CDS that results in a frameshift, as compared to variant 5. The resulting isoform (3) has shorter and different N- and C-termini, and lacks doublecortin domains, as compared to isoform 5. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.