

Product datasheet for MR226416

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Dclk1 (NM_001195540) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Dclk1 (NM_001195540) Mouse Tagged ORF Clone

Tag: Myc-DDK

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

ORF Nucleotide >MR226416 representing NM_001195540
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

TGATTTGGACTCAGTAGGAGACTCAGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR226416 representing NM_001195540

Red=Cloning site Green=Tags(s)

 ${\tt MLELIEVNGTPGSQLSTPRSGKSPSPSPTSPGSLRKQRDLYRPLSSDDLDSVGDSV}$

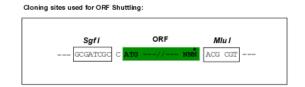
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

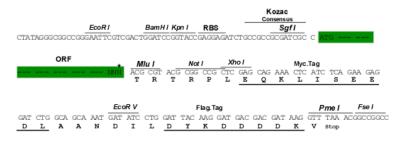
Restriction Sites: Sgfl-Mlul





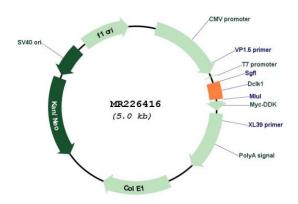
Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001195540

ORF Size: 168 bp



Dclk1 (NM_001195540) Mouse Tagged ORF Clone - MR226416

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 001195540.2

RefSeq Size: 5175 bp
RefSeq ORF: 171 bp
Locus ID: 13175
Cytogenetics: 3 C

MW: 6.4 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+/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]