

Product datasheet for **SC314561**

DCAMKL1 (DCLK1) (NM_004734) Human Untagged Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | DCAMKL1 (DCLK1) (NM_004734) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | DCAMKL1 |
| Synonyms: | CL1; CLICK1; DCAMKL1; DCDC3A; DCLK |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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Fully Sequenced ORF: >OriGene sequence for NM_004734 edited
 ATGTCCTTCGGCAGAGACATGGAGCTGGAGCACTTCGACGAGCGGGATAAGGCGCAGAGA
 TACAGCCGAGGGTTCGCGGGTGAACGGCCTGCCGAGCCCGACGCACAGCGCCCACTGCAGC
 TTCTACCCGACCCGCACGCTGCAGACGCTCAGCTCCGAGAAGAAGGCCAAGAAAGTTCGT
 TTCTATCGAAACGGAGATCGATACTTCAAAGGGATTGTGTATGCCATCTCCCAGACCGG
 TTCCGATCTTTTGGCCCTGCTGGCTGATTTGACCCGAACTCTGTGGATAACGTGAAT
 TTGCCCCAGGGAGTGAGAACAATCTACACCATTGATGGGCTCAAGAAGATTTCCAGCCTG
 GACCAACTGGTGAAGGAGAGAGTTATGTATGTGGCTCCATAGAGCCCTCAAGAAACTG
 GAGTACACCAAGAATGTGAACCCCAACTGGTCGGTGAACGTCAAGACCACCTCGGCTTCT
 CGGGCAGTGTCTTCACTGGCCTGCCAAAGGAAGCCCTCAGAGGTGCGAGAGAATAAG
 GATTTTCATTTCGGCCCAAGCTGGTCACCATCATCAGAAGTGGCGTGAAGCCACGAAAGCT
 GTCAGGATTCTGTGAACAAGAAAACGGCTCATTCTTTGAGCAGGTCTCACCGATATC
 ACCGATGCCATCAAGCTGGACTCGGGAGTGGTAAAACGCCTGTACACGTTGGATGGGAAA
 CAGGTGATGTGCCTTCAGGACTTTTTTGGTGTATGACATTTTTATTGCATGTGGACCG
 GAGAAGTCCGTTACCAGGATGATTTCTTGCTAGATGAAAGTGAATGTCGAGTGGTAAAG
 TCCACTTCTTACACAAAATAGCTTCATCATCCCGCAGGAGCACCACCAAGAGCCAGGA
 CCGTCCAGGCGTAGCAAGTCCCCTGCCTCCACCAGCTCAGTTAATGGAACCCCTGGTAGT
 CAGCTCTACTCCGCGCTCAGGCAAGTCGCCAAGCCCATCACCCACCAGCCAGGAAGC
 CTGCGGAAGCAGAGGAGCTCTCAGCATGGCGGCTCCTCTACGTCACTTGGCTCCACAAA
 GTCTGCAGCTCGATGGATGAGAACGATGGCCCTGGAGAAGAAGTGTGGGAGGAAGGCTTC
 CAGATTCAGCTACAATAACAGAACGATATAAAGTCGGAAGAACAATAGGAGATGAAAT
 TTTGCTGTTGTCAAGGAATGTGTAGAAAGATCGACTGCTAGAGAGTACGCTCTGAAAATT
 ATCAAGAAAAGCAAATGTCGAGGCAAAGAGCACATGATCCAGAATGAAGTGTCTATTTTA
 AGAAGAGTGAAGCATCCCAATATCGTTCTTCTGATTGAGGAGATGGATGTGCCAACTGAA
 CTGTATCTTGTGATGGAATTAGTAAAGGGGGAGACCTTTTTGATGCCATTACTTCCACT
 AACAAATACACCGAGAGAGACGCCAGTGGGATGCTGTACAACCTAGCCAGCGCCATCAA
 TACCTGCATAGCCTGAACATCGTCCACCGTGATATCAAGCCAGAGAACCTGCTGGTGTAT
 GAGCACCAGATGGCAGCAAATCACTGAAGCTGGGTGACTTTGGACTGGCCACCATTGTA
 GACGGCCCCCTGTACACAGTCTGTGGCACCCCAACATACGTGGCTCCAGAAATCATTGCA
 GAGACTGGATACGGCCTCAAGGTGGACATCTGGGCAGCAGGTGTAATCACTTATATCCTG
 CTGTGTGGTTTTCCCTCCATTCCTGGAAGTGGTGTATGACCAGGAGGTGCTTTTTGATCAG
 ATTTTGTGGGGCAGGTGGACTTTCCTTCTCCATACTGGGATAATGTTTCCGATTCTGCA
 AAGGAGCTCATTACCATGATGCTGTTGGTTCGATGTAGATCAGCGATTTTCTGCTGTTCAA
 GTACTTGAGCATCCCTGGGTTAATGATGATGGCCTCCCAGAAAATGAACATCAGCTGTCA
 GTAGCTGGAAAGATAAAGAAGCATTTCAACACAGGCCCAAGCCGAATAGCACAGCAGCT
 GGAGTTTCTGTATAGCACTGGACCACGGGTTTACCATCAAGAGATCAGGGTCTTTGGAC
 TACTACCAGCAACCAGGAATGATTGGATAAGACCACCGCTCTTGATAAGGAGAGGCAGG
 TTTTCCGACGAAGACGCAACCAGGATGTGA

Restriction Sites: Please inquire
ACCN: NM_004734
Insert Size: 2200 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_004734.2](#), [NP_004725.1](#)

RefSeq Size: 5703 bp

RefSeq ORF: 2190 bp

Locus ID: 9201

UniProt ID: [O15075](#)

Cytogenetics: 13q13.3

Domains: pkinase, TyrKc, S_TKc, DCX

Protein Families: Druggable Genome, Protein Kinase

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 reported, but the full-length nature and biological validity of some variants have not been defined. These variants encode different isoforms, which are differentially expressed and have different kinase activities.[provided by RefSeq, Sep 2010]

Transcript Variant: This variant (1, also known as DCLK-long-B, DCK-alpha1 or KIAA0369AS) is produced from the 5' promoter. It encodes the isoform 1, which includes two doublecortin domains, a serine/proline-rich domain and a protein kinase domain. 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.