

Product datasheet for **SC323532**

DCAMKL2 (DCLK2) (NM_001040260) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DCAMKL2 (DCLK2) (NM_001040260) Human Untagged Clone
Tag:	Tag Free
Symbol:	DCAMKL2
Synonyms:	CL2; CLICK-II; CLICK2; CLIK2; DCAMKL2; DCDC3; DCDC3B; DCK2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323532 sequence for NM_001040260 edited (data generated by NextGen Sequencing)

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ATGGCCAGCACCAGGAGTATCGAGCTGGAGCACTTTGAGGAACGGGACAAAAGGCCGCGG
CCGGGGTCGCGGAGAGGGGCCCCAGCTCCTCCGGGGCAGCAGCAGCTCGGGCCCAAG
GGGAACGGGCTCATCCCCAGTCCGGCGCACAGTGCCACTGCAGTCTACCGCACGCGG
ACCCTGCAGGCCCTCAGCTCGGAGAAGAAGCCAAGAAGGCGCGTCTACCGGAACGGG
GACCGCTACTTCAAGGGCTGGTGTGGCCATCTCCAGCGACCGTTCGGGTCTTCGAT
CGCTCCTCATAGAGCTCACCCGCTCCCTGTCGGACAACGTGAACCTGCCCCAGGGTGC
CGCACTATCTACACCATCGACGGCAGCCGGAAGGTCACCAGCCTGGACGAGCTGTGGAA
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ATTAATCCAAACTGGTCTGTGAACATCAAGGGTGGGACATCCCGAGCGCTGGTGTGCC
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GCCCTAATGATTATAGACAAAGCCAAATGTTGTGAAAGGAACACCTGATTGAGAATGAA
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CTCTTCGACCAGATCTTGGCTGGGAAGCTGGAGTTTCCGGCCCCCTACTGGGATAACATC
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ATGCAAGCTGAGGTGACAGGTAAACTAAAAACAGCACTTTAATAATGCGCTCCCCAACAG
AACAGCACTACCACCGGGTCTCCGTATCATGAACACGGCTCTAGATAAGGAGGGGCGAG
ATTTCTGCAGCAAGCACTGTCAAGACAGCGGCAGGCTGGGATGGAGCCCATCTCTCCA
GTTCTCTCCTCAGTGGAGGAGATCCCTGTGCCTGGGGAAGCAGTCCCGGCCCCACCCTT
CCGGAATCTCCACCCCCACCCTCCTCCCGCTGCCCGGGTGGTGGAGCGGCAGGAACC
TGCGCCGCCACCGAGACTGA
    
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Clone variation with respect to NM_001040260.3
 1057 c=>n;1268 a=>t

5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_001040260 unedited ACCGCCCGTTGAAGCAATGGGCGGTAGGCGTGTACGGAGGGAGGTCTATATAAGCAGAGCTCGTTTAGTG AACCGTCAGAATTTTGTAAACGACTACTATAGGGCGGCCGGAATTCGGCACGAGGGGCGCGTTAAGG GCCCTCGCAGTCAGACGTCCCTGCACCGGCGCTCGCACCCCTTAGTCGGCCCGGAACGTCTTTTTGCGGAC GCCCTCGGAGCAGCCGCGATGGCCAGCACCAGGAGTATCGAGCTGGAGCACTTTGAGGAACGGGACAAAA AGGCCCGGGCCGGGGTTCGGGAGAGGGGCCCCCGAGCTCCCTCCGGGGGCGAGCAGCTCGGGCCCCC AGGGGAAACGGGGCTTCATCCCCCAGTCCCGGCGCACAGTGGCCCAACTGGCACCTTTACCCCCCCC CGGACCTGCGGGCCCCCTCGCCTCGAGAAAAGAAGGCCAGAAAGGGGCCGCTTTTACCGAAACGGGG AACCCGCTCCTTCAGGGGCTGGGGGTTTGCCACCTTCCAGCGACCCGTTTCCGGCCTTTTCAATGCC CCCCCTTATAGAACCACACCCCGCCCTGGTCGAAAAGGTTAACCCGTGCCAGGGGTTCCCGGCTA TATTTAAATTTAAGGGGAGCCGGAAGGGGCCCGGAAAACCTGGGGAAGGGAAATTTTCGTG GGCCCCCGGAGACCTTTTGTAAAGTAGATCCCCCAATTTTACCCCACTGGTCTGGACACACTA CAGTGGGGGATACCCACGCCCTGTGCTGCTCTGTGAAAGTATGAGATATGAAGATATGGT ATTTTTTTCTCTCCCCCCTATGGGCGGGCGGATGCACACGGGAGAGGAGCCCTCCTAAGCCC GCCGCTGCTCTCTATAGAAAACAGGGTCGTTCTTGTGTGAGCTGTATCAGAAGATGATCGCGCG CGCAGCTCCATTACACTCTCGGCTCGTGAAGACGGTTCGATGAAGAACGACCAGTGC
Kinase Domain Sequence:	>SC323532 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation TAYTCACTCTTCTTGAGAATACAAAATTGGAAAGGTCATTGGTGATGGCAATTTTGCAGTAGTCAAAGAG TGTATAGACAGGTCCACTGGAAAGGAGTTGCCCTAATGATTATAGACAAAGCCAATGTTGTGAAAGG AACACCTGATTGAGAATGAAGTGTCAATACTGCGCCGAGTGAAACATCCCAATATCATTATGCTGGTCTGA GGAGATGAAACAGCAACTGAGCTCTTCTGGTATGGAATTGGT
Restriction Sites:	Please inquire
ACCN:	NM_001040260
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).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell , 2008 May p536-548.
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:	NM_001040260.1 , NP_001035350.1
RefSeq Size:	3603 bp

RefSeq ORF:	2301 bp
Locus ID:	166614
UniProt ID:	Q8N568
Cytogenetics:	4q31.23-q31.3
Protein Families:	Druggable Genome, Protein Kinase
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. Mouse studies show that the DCX gene, another family member, and this gene share function in the establishment of hippocampal organization and that their absence results in a severe epileptic phenotype and lethality, as described in human patients with lissencephaly. Multiple alternatively spliced transcript variants have been identified. [provided by RefSeq, Sep 2010]</p> <p>Transcript Variant: This variant (1) is known as exon-5-lacking transcript (PMIDs:15611072 and 18075264). It lacks an in-frame coding exon in the 5' region, as compared to variant 2. The resulting isoform (a) lacks an internal segment, as compared to isoform b. 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.</p>