

Product datasheet for MR221210

Dgki (NM_001081206) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dgki (NM_001081206) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Dgki
Synonyms: C130010K08Rik
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR221210 representing NM_001081206
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGCTGCGGGAAGGGGCTGCCATTTGCTGCCCTGCCAGCGGCGCGGGACCTGCCCGCTCCCG
CCGCTCCAGCGCCCTCAGCCCGACCGGCTCTGCAGCGGCACCACCTCGGCTTCTTTTCGCGCCCGCGG
AGCGGTGCCATGAACCCAGCTCCTCGCGGGAGAGGAGAGAGGGGCGACGGTGGCAGCAGCAGCAGC
GGAAGCGGCGCCGGAGCTGCTGCCTGGCGCCGAGGGCGCGGACCCCGGGGTGCAGGGCAGCGG
CTGCTGCTGCCTTGGAGGAGCCCGCGGCCCGGACAGAAAGAGAAGGAAGAGCGCTGGAGGAGAAGCT
GAGGGACTTAACCTTCCGGAAGCAGTCTTTACAGGAAAGCCATCTCCCGGACAGGCCTCCAGCATCTG
GCACCTGCACATCCTCTTGGTCTTCTGTGGCTAACGGTCCAGCGAAGGAGCCAGAGCCACTCTGGACT
GGAGCGAGAATGCTGTGAATGGGAGCACCTGTGGCTGGAGACCAACGTTTCAGGGGACCTCTGCTACCT
GGGGGAGGAGAAGTGCCTAAGTCCGATTTGCAAAATCCGCTCTCAGGAGGAAGTGTGCCGTGCAAAATC
GTGGTCCACACAGCCTGCATTGAGCAACTAGAGAAGATTAATTTTCAGATGTAAACCAACATTTTCGGGAA
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TGTTCTTGGTCAAGCAGCGTTTCAACAATAAGTGACCTGCTTTCATGCTGCATCATTTGAGGAACCT
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GAGCAGGAAACCAAGGCGCTCTTTTGTGATCAAGCCATCTCCTCCCTCTCATGAAGCCTTTGCTTG
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AGCTGAGCCACAGCCTCTGTGGGGTGTCTTCCACTGGGACTGGGAATGACCTGGCTCGGACGCTCAA
CTGGGGAGGGGTTACACCGATGAGCCTGTTTCTAAGATCCTGTGCCAGGTGGAAGATGGGACCATTGTA



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CAGTTGGATCGCTGGAACCTCCACGTAGAGAGAAACCCAGACCTGCCGCCGAAGAAGCTGAAGATGGCG
 TGTGTAAGCTTCTCTGAATGTCTTCAATAAATTAATTCAGCCTTGGATTTGATGCTCACGTCACATTGGA
 GTTCCATGAATCCCGAGAAGCAAATCCAGAGAAATTCATAGTCGTTTTTCGAAATAAAATGTTCTATGCA
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 CTTACTAATTCAGGGACAGGGCACTGTCTCTCCTTCACTACGCAGCTAAGACCGGCAATGGGGACATT
 GTGAAGTACATCCTTGACCACGGACCTGCAGAATTACTGGATATGGCAGACAGTAAACGGGCGAGACTG
 CACTGCACAAGGCTGCCGCAAGGAACCGGGCTGTATGCCAGCTTCTGGTGGATGCAGGAGACTCTCT
 GAGACAGACAGACTCCAAGGGCAAGACACCCAGGAACGAGCACAGCAGGCGGGGACCCAGATTGGCT
 GCTTACCTAGAAAGCCGACAGAACTATAAGATCATTGGCCATGAAGACCTGGAAACTGCTGTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR221210 representing NM_001081206
 Red=Cloning site Green=Tags(s)

MDAAGRGCHLLPLPAARGPARAPAASSALSPTGLCSGTTASFAAAGAVAMNPSSSAGEERGATGGSSSS
 GSGAGSCCLGAEGGADPRGAGAAAAALEEPAAAGQKEKEEALKEEKLRLD TFRKQVSYRKAISRTGLQHL
 APAHPLGLPVANGPAKEPRATLDWSENAVNGEHLWLETNVSGLCYLGEENCQVRFKALSALRRKCAVCKI
 VVHTACIEQLEKINFRCKPTFREGGSRSPRENFVRHHVHRRRQEGKCKQCGKGFQKFSFHSKEIVAIS
 CSWCKQAFHNKVTCFMLHHIEEPCSLGAHAAVI VPPTWIIKVKKPNQSLKASNRKKKRTSFKRKASKRGT
 EQETKGRPFVIKPISSPLMKPLL VFNPKSGGNQGTKVLQMFMYLNPQVFDLSQEGPKDALEMYRKVP
 NLRILACGGDGTGWILSILDELQLSPQPPVGLPLGTGNDLARTLNWGGYTDPEVSKILCQVEDGTIV
 QLDRWNLHVERNPDLPPEELEDGVCKLPLNVFNYYSLGFDHVTLEFHESREANPEKFNFRNKM FYA
 GAAFSDFLQRSSRDLSKHVYVVDGTDLTPKIQLKFCIVFLNIPRYCAGTMPWGNPGDHHDFEPQRHD
 DGYIEVIGFTMASLAALQVGGHGERLHQCREVMLLTYKSIPMQVDGEPCLAPAMIRISLRNQNMMVQKS
 KRRTSMPLLNNDIHQVQAADLRRVSAPPGSFTIPQSVPDRLRIRVNKISLQDYEGLHYDKDLREASIPLG
 ILVVRGDCDLETCRMIDRLQEDLQSVSSGSQRVHYQDQETSFPRALSAQRLSPRWCFLDATSADRFYRI
 DRSQEHLHFVMEISHDEIFILDPDMVVSQQAGTPPGMPDLVVEQASGLSDWWNPALRKRMLSDSGMITPH
 YEDSDLKDFSHSRVLSQPVSSDHAILQAVLTGDLMKLMESYKNGGSLLIQPGHCSLLHYAAKTGNGDI
 VKYILDHGAELLDMADESETGETALHKAACQRNRAVCQLLVDAGASLRQTDSKGTKPQERAQQAGDPLA
 AYLESRQNYKII GHEDLETAV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9040_h11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001081206

ORF Size: 3213 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:

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_001081206.2](#)

RefSeq Size: 4598 bp

RefSeq ORF: 3216 bp

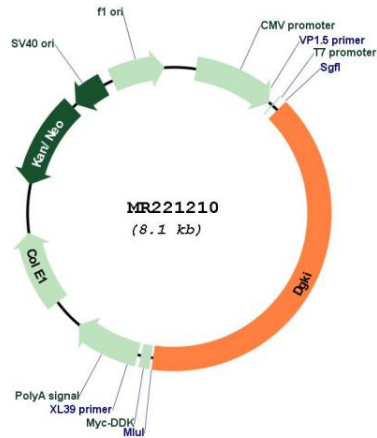
Locus ID: 320127

UniProt ID: [D3YWQ0](#)

Cytogenetics: 6 B1
 MW: 118.7 kDa

Gene Summary: Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids. Thereby, acts as a central switch between the signaling pathways activated by these second messengers with different cellular targets and opposite effects in numerous biological processes. Has probably no preference for any of the diacylglycerols in terms of the acyl chain composition, especially for the acyl chain at the sn-2 position (By similarity). By controlling the diacylglycerol/DAG-mediated activation of RASGRP3, negatively regulates the Rap1 signaling pathway (PubMed:15894621). May play a role in presynaptic diacylglycerol/DAG signaling and control neurotransmitter release during metabotropic glutamate receptor-dependent long-term depression (PubMed:21119615).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221210