

Product datasheet for **MG221210**

Dgki (NM_001081206) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dgki (NM_001081206) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Dgki
Synonyms: C130010K08Rik
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG221210 representing NM_001081206
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGATGCTGCGGGAAGGGGCTGCCATTTGCTGCCCTGCCAGCGGCGCGGGACCTGCCCGCGTCCCG
 CCGCCTCCAGCGCCCTCAGCCCGACCGGCTCTGCAGCGGCACCACCTCGGCTTCTTTTCGCGCCCGCGG
 AGCGGTGCCATGAACCCAGCTCCTCGCGGGAGAGGAGAGAGGGGCGACGGTGGCAGCAGCAGCAGC
 GGAAGCGGCGCCGGAGCTGCTGCCTGGCGCCGAGGGCGCGGACCCCGGGGTGCAGGGCAGCGG
 CTGCTGCTGCCTTGGAGGAGCCCGCGGCCCGGACAGAAAGAGAAGGAAGAGGCGCTGGAGGAGAAGCT
 GAGGGACTTAACCTTCCGGAAGCAGTCTTTACAGGAAAGCCATCTCCCGGACAGGCCTCCAGCATCTG
 GCACCTGCACATCCTCTTGGTCTTCTGTGGCTAACGGTCCAGCGAAGGAGCCAGAGCCACTCTGGACT
 GGAGCGAGAATGCTGTGAATGGGAGCACCTGTGGCTGGAGACCAACGTTTCAGGGGACCTCTGCTACCT
 GGGGGAGGAGAAGTGCCTAAGTCCGATTTGCAAAATCCGCTCTCAGGAGGAAGTGTGCCGTGCAAAATC
 GTGGTCCACACAGCCTGCATTGAGCAACTAGAGAAGATTAATTTTCAGATGTAACCAACATTTTCGGGAA
 GAGGCTCCAGATCGCCAAGAGAAAATTTGTGCGTCACCACTGGGTCCACAGGAGCGGCAGGAGGGAAA
 ATGTAAGCAGTGTGGTAAGGGCTTCCAGCAAAAGTTCTCCTTCCACAGTAAAGAGATCGTGGCCATCAGC
 TGTTCTTGGTGCAAGCAGGCGTTTCAACAATAAGTGACCTGCTTCATGCTGCATATTTGAGGAACCT
 GCTCCCTGGGGGCTCACGCCGCTGTTATTGTCCCGCCACCTGGATCATTAAAGGTGAAGAAACCTCAGAA
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 GAGCAGGAAACCAAGGCGCTCTTTTGTGATCAAGCCATCTCCTCCCTCTCATGAAGCCTTTGCTTG
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 AATCTGAGAATTCTGGCCTGCGGTGGGGATGGAACGGTGGGTGGATCCTCTCCATCTGGACGAGCTGC
 AGCTGAGCCACAGCCTCTGTGGGGTGTCTTCCACTGGGACTGGGAATGACCTGGCTCGGACGCTCAA
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CAGTTGGATCGCTGGAACCTCCACGTAGAGAGAAACCCAGACCTGCCGCCGAAGAAGCTTGAAGATGGCG
 TGTGTAAGCTTCTCTGAATGTCTTCAATAAATTACTTCAGCCTTGGATTTGATGCTCACGTCACATTGGA
 GTTCCATGAATCCCGAGAAGCAAATCCAGAGAAATTCATAGTCGTTTTTCGAAATAAAATGTTCTATGCA
 GGGGCAGCCTTTTCTGATTTCTACAAAGAAGTTCTAGAGATCTATCCAAACACGTCAAAGTTGTCTGTG
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 TGCAGTCAGTTTCTTCTGGTCCAGAGAGTTCATTACCAGGACCAAGAAACCTCCTTCCCAGGGCACT
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 ATGCAATTTTGCAGGCAGTCTCACCGGTGACCTTATGAAGTCTATGGAGAGCTATAAGAATGGAGGGAG
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 GTGAAGTACATCCTTGACCACGGACCTGCAGAATTACTGGATATGGCAGACAGTAAACGGGCGAGACTG
 CACTGCACAAGGCTGCCTGCCAAAGGAACCGGCTGTATGCCAGCTTCTGGTGGATGCAGGAGACTCTCT
 GAGACAGACAGACTCCAAGGGCAAGACACCCAGGAACGAGCACAGCAGGCGGGGACCCAGATTTGGCT
 GCTTACCTAGAAAGCCGACAGAACTATAAGATCATTGGCCATGAAGACCTGGAAACTGCTGTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG221210 representing NM_001081206
 Red=Cloning site Green=Tags(s)

MDAAGRGCHLLPLPAARGPARAPAASSALSPTGLCSGTTASFAAGAVAMNPSSSAGEERGATGGSSSS
 GSGAGSCCLGAEGGADPRGAGAAAAALEEPAAAGQKEKEEALKEELRDLTFRKQVSYRKAISRTGLQHL
 APAHPLGLPVANGPAKEPRATLDWSENAVNGEHLWLETNVSGLCYLGEENCQVRFKALSRRKCAVCKI
 VVHTACIEQLEKINFRCKPTFREGGSRSPRENFVRHHVHRRRQEGKCKQCGKGFQKFSFHSKEIVASIS
 CSWCKQAFHNKVTCFMLHHIEEPCSLGAHAAVI VPPTWIIKVKKPNLSLKASNRKKKRTSFKRKASKRGT
 EQETKGRPFVIKPISSPLMKPLL VFNPKSGGNQGTKVLQMFMYLNPQVFDLSQEGPKDALEMYRKVP
 NLRILACGGDGTGWILSILDELQLSPQPPVGLPLGTGNDLARTLNWGGYTDPEVSKILCQVEDGTIV
 QLDRWNLHVERNPDLPPEELEDGVCKLPLNVFNMYSLGFDHVTLEFHESREANPEKFNRSRFRNKMFYA
 GAAFSDFLQRSSRDLSKHVKVVDGDTLTPKIQDLKFQCI VFLNIPRYCAGTMPWGNPGDHHDFEPQRHD
 DGYIEVIGFTMASLAALQVGGHGERLHQCREVMLLTYKSIPMQVDGEPCLAPAMIRISLRNQNANMVQKS
 KRRTSMPLLNIDHQVQAADLRRVSAPPQSFTIPQSVPRDLRIRVNKISLQDYEGLHYDKDKLREASIPLG
 ILVVRGDCDLETCRMIDRLQEDLQSVSSGSQRVHYQDQETSFPRALSAQRLSPRWCFLDATSADRFYRI
 DRSQEHLHFVMEISHDEIFILDPDMVVSQQAGTPPGMPDLVVEQASGLSDWWNPALRKRMLSDSGMITPH
 YEDSDLKDFSHSRVLQSPVSSDHAILQAVLTGDLMKLME SYKNGGSLLIQGPGHCSLLHYAAKTGNGDI
 VKYILDHGPAELLDMADESETGETALHKAACQRNRAVCQLLVDAGASLRQTDSKGTKPQERAQQAGDPDLA
 AYLESRQNYKIIIGHEDLETAV

TRTRPLE – GFP Tag – V

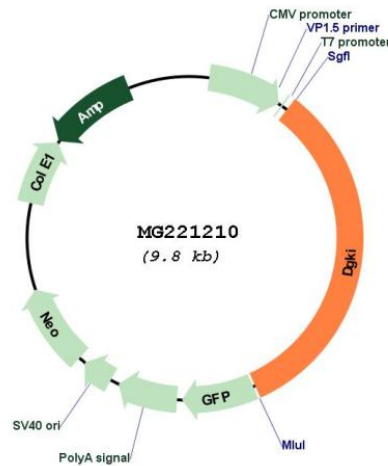
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



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:	<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:	<u>NM_001081206.2</u>
RefSeq Size:	4598 bp
RefSeq ORF:	3216 bp
Locus ID:	320127
UniProt ID:	<u>D3YWQ0</u>
Cytogenetics:	6 B1
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]