

## Product datasheet for **RG224710**

### **DGKG (NM\_001080744) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	DGKG (NM_001080744) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DGKG
Synonyms:	DAGK3; DGK-GAMMA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG224710 representing NM\_001080744  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGGTGAAGAACGGTGGGTCTCCCTCACTCCAGAAGAATTTGACCAACTCCAGAAATATTCAGAATATT  
CCTCCAAGAAGATAAAGATGCCTTGAAGTGAATTTAATGAGGGTGGGAGCCTCAAACAATATGACCCACA  
TGAGCCGATTAGCTATGATGTCTTCAAGCTGTTTATGAGGGCGTACCTGGAGGTGGACCTTCCCCAGCCA  
CTGAGCACTCACCTCTTCTGGCCTTCAGCCAGAAGCCAGACACGAGACCTCTGACCACCCGACGGAGG  
GAGCCAGCAACAGTGAGGCCAACAGCGCAGATACTAATATACAGAATGCAGATAATGCCACCAAAGCAGA  
CGAGGCCCTGTGCCCTGATACTGAATCAAATATGGCTGAGAAGCAAGCACCAGCTGAAGACCAAGTGGCT  
GCGACCCCTGGAACCCCGTCCCTCGGTCTTCAAGCTCGGAATCCCCAGTGGTATACCTGAAGGATG  
TTGTGTGCTACCTGTCCCTGCTGGAGACGGGGAGGCCCTCAGGATAAGCTGGAGTTCATGTTTCGCCTCTA  
TGATTCAGATGAGAACGGTCTCCTGGACCAAGCGGAGATGGATTGCATTGTCAACCAAATGCTGCATATT  
GCCAGTACCTGGAGTGGGATCCACAGAGCTGAGGCCTATATTGAAGGAGATGTGCAAGGGATGGACT  
ACGACCCGGGACGGCTTTGTGTCTCTACAGGAATGGGTCCATGGAGGGATGACCACCATCCCATTGCTGGT  
CCTCCTGGGGATGGATGACTCTGGCTCCAAGGGGGATGGGCGCACGCTGGACCATGAAGCACTTCAAG  
AAACCAACCTACTGCAACTTCTGCCATATCATGCTCATGGGCGTCCGCAAGCAAGGCCTGTGCTGCACTT  
ACTGTAATACTGTCCACGAACGCTGTGTGTCCAGAAACATTCCTGGTTGTGTCAAACGTACTCAA  
AGCCAAAAGGAGTGGTGAGGTGATGCAGCACGCATGGGTGGAAGGGAACCTCCCGTCAAGTGTGACCCG  
TGCCACAAAAGTATCAAGTGTACCAGAGTGTACCCGCGGGCACTGCGTGTGGTCCCGGATGACGTTTC  
ACCGCAAATGTGAATTATCAACGTTGTGTGACGGTGGGGAACCTCAGAGACCACATCTTACTGCCACCTC  
CATATGCCCATCACCCGGACAGGCCAGGTGAGAAGTCTGATGGCTGCGTGTCCGCAAGGGCGAATCTT  
GTCATGCAGTATAAGATCATCCCCACCCGGTACCCACCCCTGCTGGTCTTGGTGAACCCCAAGAGTG  
GAGGGAGACAAGGAGAAAGGTTGAACTTTTTCCGTGATACTCCAGACTTCCGTGTTTTGGCCTGTGGTGG  
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GTCCTGCCTTTGGAACAGGAAATGACCTTGCCCGTTGTCTCCGCTGGGAGGAGGTTATGAAGGGGCA  
GCTTGACAAAAATCCTGAAAGACATTGAGCAGAGCCCTTGGTGTGCTGGACCGCTGGCATCTGGAAGT  
CATCCCCAGAGAGGAAGTGGAAAACGGGACCAGGTCCCATACAGCATCATGAACAATATTTCTCCATT  
GGTGTGGACGCTTCCATTGCACACAGATTCCATGTGATGAGAGAGAAACATCCTGAAAAATCAACAGCA  
GGATGAAGAACAAGCTGTGGTACTTTGAATTTGGCACCTCGGAGACTTTTGCAGCGACCTGCAAGAACT  
CCACGACCACATTGAGTTGGAGTGTGATGGGGTGGGGTGGACCTGAGCAACATCTTCTGGAAGGCATT  
GCCATTCTCAACATTTCCAGCATGTACGGAGGCACCAATCTCTGGGGAGAAAAACAAGAAGAACCGGGCTG  
TGATCCGGGAAAGCAGGAAGGGTGTCACTGACCCCAAAGAAGTGAATTTCTGCGTTCAAGACCTCAGTGA  
CCAGCTCCTTGAAGTGGTGGGCTAGAAGGAGCCATGGAGATGGGGCAGATCTACACCGGCTGAAGAGT  
GCAGGCAGGAGGCTGGCCAGTGCCTCTGTCAACATCAGGACAACAAGCTGCTGCCAATGCAAGTGG  
ATGGGAAACCTGGATGCAGCCATGTTGCAGATTAATAATTAACAAGAACAAGCGCCCATGATGAT  
GGGGCTCCCCAGAAGAGCAGCTTCTTCTCGTTGAGAAGGAAGAGCCGTTCAAAGAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG224710 representing NM\_001080744  
 Red=Cloning site Green=Tags(s)

MGEERWVSLTPEEFDQLQKYSEYSSKKIKDALTEFNEGGSLKQYDPHEPISYDVFKLFMRAYLEVLDLPQP  
 LSTHLFLAFSQKPRHETSDHPTEGASNSEANSADTNIQNADNATKADEACAPDTESNMAEKQAPAEDQVA  
 ATPLEPPVPRSSSESPPVYLKDVVCYLSLLETGRPQDKLEFMFRLYDSDENGLDQAEMDCIVNQLHI  
 AQYLEWDPTELRPILKEMLQGM DYDRDGFVSLQEWVHGGMTTIPLLVLLGMDDSGSKGDRHAWTMKHF  
 KPTYCNFCHIMLMGVRKQGLCCTYCKYTVHERCVSRNIPGCVKTYSKAKRSGEVMQHAWVEGNSSVKCDR  
 CHKSIKCYQSVTARHCVWCRMTFHRKCELSTLCDGGELRDHILLPTSICPITRDRPGEKSDGCVSAKGE  
 VMQYKIIPTPGTHPLLVLVNPKSGGRQGERLNFFRDTPDFRVLACGGDGTVGWILDCIDKANFAKHPPVA  
 VLPLGTGNDLARCLRWGGYEGGSLTKILKDIEQSPLVMLDRWHLEVIPREEVNGDQVPYSIMNNYFSI  
 GVDASIAHRFHMREKHPEKFN SRMKNLWYFEFGTSETFAATCKKLHDHIELECDG VGVLDL SNIFLEGI  
 AILNIPSMYGGTNLWGENKKNRAVIRESRKGVTPKELKFCVQDLSQDLLEVVGLEGAMEMGOIYTLGKS  
 AGRRLAQCASVTIRTNKLLPMQVDGEPWMPQCCTIKITHKNQAPMMGPPQKSSFFSLRRKSRSKD

TRTRPLE - GFP Tag - V

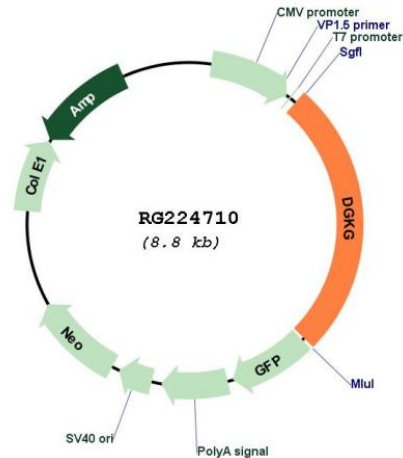
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_001080744

ORF Size: 2298 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\\_001080744.2](#)

RefSeq Size: 5743 bp

RefSeq ORF: 2301 bp

Locus ID: 1608

UniProt ID:	<a href="#">P49619</a>
Cytogenetics:	3q27.2-q27.3
Protein Families:	Druggable Genome
Protein Pathways:	Glycerolipid metabolism, Glycerophospholipid metabolism, Metabolic pathways, Phosphatidylinositol signaling system
Gene Summary:	<p>This gene encodes an enzyme that is a member of the type I subfamily of diacylglycerol kinases, which are involved in lipid metabolism. These enzymes generate phosphatidic acid by catalyzing the phosphorylation of diacylglycerol, a fundamental lipid second messenger that activates numerous proteins, including protein kinase C isoforms, Ras guanyl nucleotide-releasing proteins and some transient receptor potential channels. Diacylglycerol kinase gamma has been implicated in cell cycle regulation and in the negative regulation of macrophage differentiation in leukemia cells. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p>