

## Product datasheet for MR231558

### Dgkh (NM\_001253766) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dgkh (NM\_001253766) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Dgkh  
**Synonyms:** 5930402B05Rik; D130015C16; DGK  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR231558 representing NM\_001253766  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGGATCGCC

ATGCTATGTGCTGAGAACAGGAAAGAGATGGAGGTCTGGATCAGCTCTCTGAAGTCAGTGCAGAGCAGAG  
 AACCTATGAGGTGGCCAGTTCATGTGGAACATTTCTCAGGGATGCACAACCTGGTACGCTGCTCCCA  
 CGCCCGCCACCTTCTGTAACGTGTGCAGAGAGAGTCTCTCTGGAGTGACCTCCACGCGCTGTCTGT  
 GAAGTGTGTAAGTTCAAGGCTCATAAAAGATGTGCAAGTGGGCAACAACTGCAAAATGGACCACGC  
 TGGCCTCCATCGGGAAGGACATCATAGAGGACGAGGATGGTGTGCCATGCCCTCACCAGTGGCTCGAAGG  
 CACTTGCCCTGTGAGTGCCAAGTGTGCACTCTGTGACAAAACCTGTGGCAGTGTGCTTCGCTGCAAGAT  
 TGGAAATGCCTTTGGTGTAAAGACAATGGTGCACACTGCCTGCAAAGATGTGTACCATCCCGTCTGTCCC  
 TTGGCCAGTGTAAAGTCTCCATCATACCTCCGATTGCACTAAATAGCACAGACTCTGATGGTTTCTGTGC  
 AGCAACCTTTTCGTTCTGTGTGACCCCCCTTTGGTGTTCGTCAACTCTAAGAGTGGAGATAATCAGGGA  
 GTGAAGTTCCTTCGTGCTTTAAACAGTTGCTCAACCCAGCTCAGGTGTTTGATTTAATGAACGGAGGGC  
 CTTATTTAGGCTTGAGATTGTTTCAAAGTTTGACAACCTTCGGATCCTTGTCTGTGGAGGAGATGGAAG  
 TGTAGGCTGGGTTTTGTCAGAGATTGATAAACTGAACTTGCATAAACAGTGCAGCTTGGGGTGTACCC  
 TTGGGTACCGCAATGACCTGCTCGAGTTCCTGGCTGGGGAGGTTCATATGATGATGACACCAACTCC  
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 GCTCAAATGGCCAGCAAAGTCTGCTCTACTTCTGAACTGTGGCAGCAACTGAAGAATTTTACATGACA  
 ATTTATGAAGACTCCGTTGCAAACCATCTTACGAAAATCGTCAACTCTGATGAGCATGCGGTGGTCATAT  
 CGTCTGCCAAGATACTCTGTGAAACCGTGAAGGACTTCGTTGCCAAAGTGGAGAAGGCACAGGACAGAAC  
 ACTGAAAATACAGTAGCCGAAGCCGTGGCCAGTAAATGCTCAGTCTAAACGAGAAGCTTGAGCAG  
 TTGCTACAAGCCTTGACGCGGACTCTCAGGCCAGTTCGAGTCCCCCAGGAATCGGCCCTGCCATCCCCG  
 AAGAGGACACCGTGGAGTCCGCCAGTGCAGAGTCTTGGGTGAAAGCAAGGACCAGCTGGTGAATGACAT  
 TGGGAAACCTCCTCCAGAAAGCCGTGAAGCCCCGGGAGATAATGCTGCGGGCCAAACAGTCTAAAGAAA  
 CGGGTGGGCAAGTCATTGAAGAAGCTGAAAAGTTATGGATGAGCCAGCAGTGCAGCCCTCTGAGCCAG



TCAGTCCGCTTTGTGACTATGATACAGAAACAGATGAAGCTAAAGAGGACGACGCGAAAGAGTCGCTATC  
 AGCCAAAACCACATCTCAGTCTCCTGATGCCCAGGCAAGCTGTGGCCATCCCAAAGTACTCTGTGCGT  
 GGTCCAGCCATGGCCACCACAAAGAAAACCTCCCTGTGCTCAACACTAGAATCATCTGCCCAGGTTTGA  
 GAGCAGGACTTGTGCTCCATTGCTGGGAGTTTATCATCAACAAAATGTTGCTGGCGAACATCGATCC  
 TTTCCGGGCAACACCGTTTATTGACCCAGATCTAGACTCACTAGATGGATACTCTGAAAAATGTGTCATG  
 AACAACTACTTTGGGATTGGATTAGATGCAAAAATTTTCATTAGAATTTAATAAAGAGAGAGGAGCACC  
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 AACAAAAGCACAGTCTTTCGATAGTGCCAAAGTTTAAAAGGAAAAGGCTCAGAAAACAGAAAACAAGT  
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 CAAAGAAATCTTCACTCCGTCATGACGTGAGGGGCTGAACCTTTGCATCTGAAAGACGAGATCTTAAG  
 GACCTGGGGATTCCGAAAGTGGTCAATGAAGCGAATTCTCCAGGGAATTAAGAGCTTGAACGGAAACC  
 CTCCCACTTGGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR231558 representing NM\_001253766

Red=Cloning site Green=Tags(s)

MLCAENRKEMEVWISSLSKVSQREPYEVAQFNVEHFSGMHNWYACSHARPTFCNVCRELSGVTSHGLSC  
 EVCKFKAHKRCAYRATNCKWTTLASIGKDIIEDEDGVAMPHQWLEGNLPVSAKCAVCDKTCGSLRLQD  
 WKCLWCKTMVHTACKDVYHPVCPGLGQCKVSIIPPIALNSTDSDFCRATFSFCVSPLLVFVNSKSGDNQG  
 VKFLRRFKQLLNPAQVFDLMNGGPYGLRLFQKFDNFRILVCGGDGSGVWVLEIDKLNHLKQCQLGVLP  
 LGTGNDLARVLGWGGSYDDDTQLPQILEKLERASTKMLDRWSIMTYELKLPKASSLLPEPVAATEEFYMT  
 IYEDSVANHLTKIVNSDEHAVVISSAKILCETVKDFVAKVEKAQDRLENTVVAEAVASKCSVLNEKLEQ  
 LLQALHADSQASRVPPGIGPAIPEEDTVESASDESLGESKDQLVNDIGKPSSQKAVKPREIMLRANSLKK  
 AVRQVIEEAEKVMDEPAVQPSEPVPSPCDYDTEDEAKEDDAKESLSAKTTSQSPDAQASCGRPQDTSVA  
 GPAMATTENLPLVNTRIIICPGLRAGLAASIAGSSIINKMLLANIDPFATPFIDPDLDSLDDGYSEKCV  
 NNYFGIGLDAKISLEFNKREEHPEKCRSRTKNLMWYGVLTRELLQRSYKLEQRVQLECDGQYIPLPS  
 LQGI AVLNIPSYAGGTNFWGGTKEDDIFAAPSFDDKILEVVAVFDSVQMAVSRVIKQHHRIAQCRTVKI  
 TIFGDEGVPVQVDGEAWVQPPGIKIIVHKNRAQMLTRDRAFESTLKSWEKQKCDGSKPVLRTNL YIHPA  
 PDLATEEVSQMR LCSQAAEELITRICDAATIHCLLEQELAHAVNACSHALNKANPRFPESLTRDTEIA  
 INVKALYNETEALLVGRVPLHLESPHEERVSSALHSVEMELQKLTEIPWLYIILRSEDEEPLDCTKRN  
 NKSTVFRIVPKFKKEKAQKQKTSQPVQNWGTEEVAAWLDDLNLGEYKEIFIRHDVYRGAELLHLERRDLK  
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

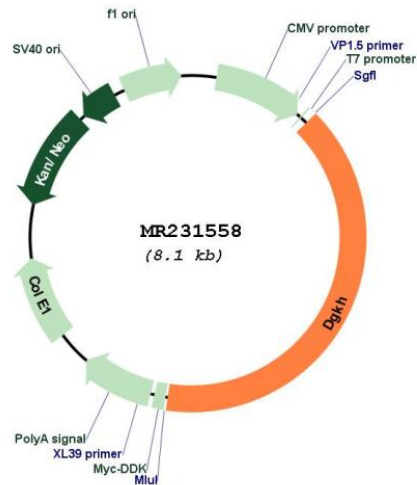
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001253766

ORF Size: 3234 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001253766.2</u>
<b>RefSeq Size:</b>	3786 bp
<b>RefSeq ORF:</b>	3237 bp
<b>Locus ID:</b>	380921
<b>Cytogenetics:</b>	14 D3
<b>MW:</b>	120.3 kDa
<b>Gene Summary:</b>	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:27643686). 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 (Probable). Plays a key role in promoting cell growth. Activates the Ras/B-Raf/C-Raf/MEK/ERK signaling pathway induced by EGF. Regulates the recruitment of RAF1 and BRAF from cytoplasm to membranes and their heterodimerization (By similarity). [UniProtKB/Swiss-Prot Function]