

Product datasheet for MR231503

Dgkh (NM_001281794) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dgkh (NM_001281794) 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: >MR231503 representing NM_001281794
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTATGTGCTGAGAACAGGAAAGAGATGGAGGTCTGGATCAGCTCTCTGAAGTCAGTGCAGAGCAGAG
 AACCTATGAGGTGGCCAGTTCATGTGGAACATTTCTCAGGGATGCACAACCTGGTACGCTGCTCCCA
 CGCCCGCCACCTTCTGTAACGTGTGCAGAGAGAGTCTCTGGAGTGACCTCCACGGCTGTCTGT
 GAAGTGTGTAAGTTCAAGGCTCATAAAAGATGTGCAAGTGGGCAACAACTGCAAAATGGACCACGC
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 TGGAAATGCCTTTGGTGTAAAGACAATGGTGCACACTGCCTGCAAAGATGTGTACCATCCCGTCTGTCCC
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 AGCAACCTTTTCGTTCTGTGTGACCCCCCTTTGGTGTTCGTCAACTCTAAGAGTGGAGATAATCAGGGA
 GTGAAGTTCCTTCGTGCTTTAAACAGTTGCTCAACCCAGCTCAGGTGTTTGATTTAATGAACGGAGGGC
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 GCTCAAATGGCCAGCAAAGTCTGCTCTACTTCTGAACTGTGGCAGCAACTGAAGAATTTTACATGACA
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TCAGTCCGTCTTGTGACTATGATACAGAAACAGATGAAGCTAAAGAGGACGACGCGAAAGAGTCGCTATC
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 GAGATCGTACAAGAATCTGGAGCAGAGGGTTCAACTTGAGTGTGATGGGCAGTATATACCTCTCCTAGT
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 AGGATGATATATTTGCTGCGCCATCCTTTGATGACAAGATTCTAGAAGTTGTGCGAGTGTGGACAGTGT
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 ACACGCCCTGAACAAAGCCAACCCACGCTTCCCGGAGAGCCTTACGAGAGACTGCCACCAGATAGCC
 ATCAACGTCAAGGCGCTCTATAATGAGACAGAGGCTTTGCTAGTTGGCAGGGTCCCTTTGCACTTGGAA
 TCCTCACGAAGAGCGGGTGTCCAGTGCCTTACTCTGTGGAGATGGAGCTTCAAGTAAACGGAGAT
 TCCCTGGCTTTATTACATCTCCGCCCAAGTGGAGACGAGGAGCCTCTCTGGATTGTACAAAAGAAAC
 AACAAAAGCACAGTCTTTCGATAGTGCCAAAGTTTAAAAAGAAAAGGCTCAGAAACAGAAAACAAGTT
 CGCAGCCTGAATTGGGGCACAGAGGAAGTTGCTGCTTGGCTGGATCTGCTCAATTTGGGAGAGTACAAG
 AAATCTTCATCCGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR231503 representing NM_001281794
 Red=Cloning site Green=Tags(s)

MLCAENRKEMEVWISSLSKVSQREPYEVAQFNVEHFSGMHNWYACSHARPTFCNVRESLSGVTSGLSC
 EVCKFKAHKRCVAVRATNCKWTTLASIGKDIIEDEDGVAMPHQWLEGNLPVSAKCAVCDKTCGSVLRQLQD
 WKLWCKTMVHTACKDVYHPVCPPLGQCKVSIIPPIALNSTDSDFCRATFSFCVSPLLVFNKSGDNQG
 VKFLRRFKQLLNPAQVFDLMNGGPYLGRLRQKFDNFRILVCGDGSVGVWLSEIDKLNHLKQCQLGVLP
 LGTGNDLARVLGWGGSYDDDTQLPQILEKLERASTKMLDRWSIMTYELKLPKSSLLPEPVAATEEFYMT
 IYEDSVANHLTKIVNSDEHAVVISSAKILCETVKDFVAKVEKAQDRLENTVVAEAVASKCSVLNEKLEQ
 LLQALHADSQASRVPPGIGPAIPEEDTVEASDESLESKDQLVNDIGKPSQKAVKPREIMLRANSLKK
 AVRQVIEAEKVMDEPAVQVSEPVSPSCDYDTEDEAKEDDAKESLSAKTTSQSPDAQASCQHPQTDQSV
 GPAMATTKENLPVLNTRIIICPGLRAGLAASIAGSSIINKMLLANIDPFGATPFIDPDLDSLDDGYSEKCV
 NNYFGIGLDAKISLEFNNKREEHPEKCRSRKMLMVGVLGTRELLQRSYKLEQVRVLECDGQYIPLPS
 LQGI AVLNIPSYAGGTNFWGGTKEDDIFAAPSFDDKILEVVAVFDSVQMAVSRVIKQHHRIAQCRTVKI
 TIFGDEGVPVQVDGEAWVQPPGIKIVHKNRAQMLTRDRAFEKSLKSWEDKQKCDKSGKPLVRLNLYIH
 PDLATEEVSQMR LCSQAAEELITRICDAATIHCLLEQELAHAVNACSHALNKANPRFPESLTRDTATEIA
 INVKALYNETEALLVGRVPLHLESPHEERVSSALHSVEMELQKLEIPWLYIILRPSEDEEPLDCTKRN
 NKSTVFRIVPKFKKEKAQKQKTSQPELGHRGSCCLAGSAQFGRVQRNLHPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

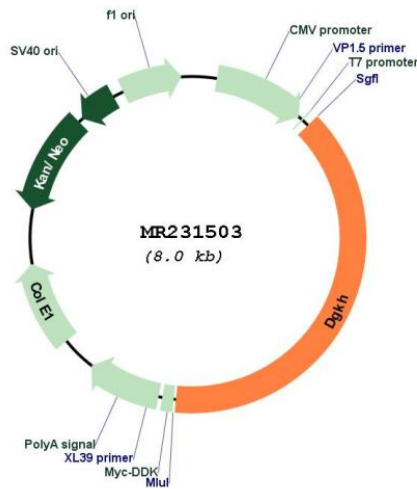
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN:

NM_001281794

ORF Size:

3096 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_001281794.2</u>
RefSeq Size:	3781 bp
RefSeq ORF:	3099 bp
Locus ID:	380921
Cytogenetics:	14 D3
MW:	114.7 kDa
Gene Summary:	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (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]