

Product datasheet for **MG220816**

Dgkz (NM_001166597) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dgkz (NM_001166597) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dgkz
Synonyms:	E130307B02Rik; ENSMUSG00000075035; F730209L11Rik; mDGK[z]
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG220816 representing NM_001166597 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGACCTTCTTTAGGAAGCATTTCCAACGAAAGGCACGAGGTCCCGGAGAGAGGCAGCGGGTCCA
GTGGCGTGGGGCTGCCACAGGCAAGGCTCGACGCCGCTCCCCTGCAGGGCAGGCGTCTCTTCACTGGC
CCAGAGGCGCGCTCCAGTGCACAGCTCCAGGGCTGTTTTCCAGCTGCGGGTGGGCACGAGAGGTGCC
AGCCGAGGCGATCCAGCACTGCACCCCTACCTGCAATCCCGCTTCATGGTGGATGTGGTGCCTACCC
TACAGCCTGTACAGTTGGGGCCAGCTTCTGGGTGCACCCCTGTGTTGGCTGGGCTCACAAAGCATGAA
GGAGGAAGAGGAGGAGGAAGGGTCCAGGAGGAAATGAGACAGCTGAGGCGACAAGTGATGCTAGGCCA
GGTACCCGGACAACGCCCTTCTCACACAGGGCACCTGGCCACTGCTTCCATGCCCCGCTGCCTGCGTC
GAGCCTCCTCCCACCTGCTCCTGCTGATGTGGAGTGTGGCCATACCCCTTGGGGCTGCATGGTACTA
TCGACGCCCTCAGCCAGCGGTGGCCCTCAGGCCAGCACCCTGGTCTTGGGGCCGAAGCCAAAGAGCCTCG
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GCTATGTGCGGGAGCAGCACTGTGTAGCTAAGATGCTGCCGAAGTCAGCGCCAGAAAAAAGTGTGCAGC
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GCCAGGATGGCAAGTGTGCGCACTGTGGGAAGGGCTTCCAGCAGAAGTTCACCTTCCACAGCAAGGAGAT
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CTGCTGGTGTGGTGAACCCCAAGAGTGGGGGCAACCAGGGTGCCAAGATCATCCAGTCTTTTTGTGGT
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 AAGCCGGGCTCCCTCATGAAGACAGATCTGCAGGGGACACTCCCGGAGCGCGCTGAGAAGGCTCA
 AGACACAGAGCTCGCTGCCTACCTGGAGAACAGACAGCATTACCAGATGATCCAGCGTGAGGACCAGGAG
 ACAGCTGTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

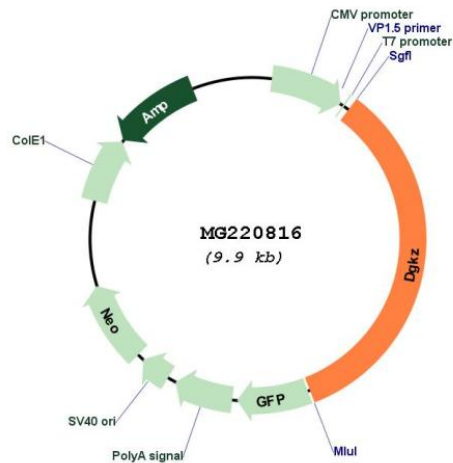
Protein Sequence:

>MG220816 representing NM_001166597
 Red=Cloning site Green=Tags(s)

METFFRKHFQRKARGPGERQRRSSVGLPTGKARRRSPAGQASSSLAQRRRSSAQLQGCFPSCGVGTRGA
 SRRRSSTAPPTCNPRFMVDVPTLQPVTVGAQLLGAPELLLAGLTSMKEEEEEEGVQEGNETAEATSDARP
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 GAAACPMIPARVRPLSRRRQVALRRKSAGPQPWSTLLMKAITKSLQHLAPPPPTPGAPCGESEEQIQST
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 IEEPCSLGVHAAVVIPTWILRARRPQNTLAKSKKKRASFKRRSSKKGPEEGRWRPFIIRPTSPMLKP
 LLVFNPKSGGNQGAKIIQSFLWYLNPRQVFDLSQGGPREALEMYRKVHNLRLILACGGDGTWVWILSTLD
 QLRLKPPPPVAIPLGTGNDLARTLNWGGGYTDEPVSKILSHVEEGNVVQLDRWDLRAEPNPEAGPEERD
 DGATDRLPLDVFNNYFSLGFDHVTLEFHESSREANPEKFNRSFRNKMFYAGTAFSDFLMGSSKDLAKHIR
 VVCDGMDLTPKIQDLKPQCIVFLNIPRYCAGTMPWGHGHPGEHDFEPQRHDDGYLEVIQGTMTSLAALQVG
 GHGERLTQCREVLLTTAKAIPVQVDGEPCKLSASRIRIALRNQATMVQKAKRRSTAPLHSDQQPVPEQLR
 IQVSRVSMHDYEALHYDKEQLKEASVPLGTVVVPGDSDLELCRAHIERLQREPDGAGAKSPMCHQLSSKW
 CFLDATTASRFYRIDRAQEHLNYVTEIAQDEIYILDPELLGASARPDLPPTSPASPSPPTGSMQGD
 TALPQGEELIEAAKRNDCCKLQELHRAGDLMHRDQKSRSTLLHHAHVSTGSKEVVRYLLDHAPPEILDAVE
 ENGETCLHQAAALGQRTICHYIVEAGASLMKTDLQGDTPRQRAEKAQDTELAAYLENRQHYQMIQREDQE
 TAV

TRTRPLE – GFP Tag – V

Plasmid Map:



ACCN: NM_001166597

ORF Size: 3369 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_001166597.1](#), [NP_001160069.1](#)

RefSeq Size: 4090 bp

RefSeq ORF: 3372 bp

Locus ID: 104418

Cytogenetics: 2 E1

Gene Summary:

Displays a strong preference for 1,2-diacylglycerols over 1,3-diacylglycerols, but lacks substrate specificity among molecular species of long chain diacylglycerols. Regulates RASGRP1 activity (By similarity). Positively regulates insulin-induced translocation of SLC2A4 to the cell membrane in adipocytes. Activates PIP5K1A activity via generation of phosphatidic acid (PubMed:27739494).[UniProtKB/Swiss-Prot Function]