

## Product datasheet for **MG215309**

### Dgkd (NM\_177646) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dgkd (NM_177646) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dgkd
Synonyms:	AI841987; D330025K09; dgkd-2; DGKdelta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG215309 representing NM_177646 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGGCGCGGGCGGGCGGGCCCTCCGCCGGTCTCCTCAGCCACCTCCGCCCGCCGCGCTGAGGAGT  
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AAGAGGAGGTACTTTAAGCTTCGAGGGCGAACACTTTACTATGCTAAAACGAAAGTTCGATTATATTTG  
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CATCACTCCATGTAGGAAGCTCATCTTGTGTGCCGACAACAGGAAAGAAATGGAAGATTGGATTGCAGCA  
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CACATCCCATGGGCTATCCTGTGAAGTGTGAAGTTAAGGCTCACAACGTTGTGCTGTGCGTGAACCT  
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TGCCTCACCAGTGGTTGGAAGGAAACCTGCCTGTGAGTGCCAAGTGTATCGTGTGTGACAAGACTTGTGG  
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TCCTTGGTGATGAAGTGCACCTTGGCCTGTGCAAGGTGTGTCATCCCTCCCAGGCACTCAACAGTA  
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ATCTTAACCTTCGGACCAGCATTCTGTGGTGATCTCATCAGCCAAAGTGCTCTGTGAGACAGTGAAGGACT  
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CGCAGTGAGACAGAGCTGCTGCTGGCTGGGAAGATGGCCCTGCAATTGGATCCCCCTCAGAAGGAACGGC  
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AAGGACCTTGGTGTGACCAAAGTGGCCATATGAAGAGGATCCTTGTGGGATCAAGGAGCTGAGCCGGA  
GCTCCCCTGCCGCCGAGGCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG215309 representing NM\_177646  
 Red=Cloning site Green=Tags(s)

MAAAAGAPPPGPPQPPPPPPPEESSDSEPEAEPGSPQKLIRKVSTSGQIRQKTIKLGMLTKQNNSFQRS  
 KRRYFKLRGRTL YYAKTAKSIIIFDEVLD TASVAESSTKNVNSFTVITPCRKLILCADNRKEMEDWIAA  
 LKTVQNKEHFPTQYSMDHFGSMHNWYACSHARPTYCNVCREVL SGVTSGLSCEVCKFKAHKRC AVRAT  
 SNCKWTTLASIGKDIIEDEDDGIAMPHQWLEGNLPVSAKIVCDKTCGSVLRQLQDWRCLWCKAMVHTSCKE  
 SLVMKCPGLGLCKVSVIPPTALNSIDSDGFWKATCPPSCTSPLLVFNVNSKSGDNQGVKFLRRFKQLLNPAQ  
 VFDLMNGGPHLGLRFLQKFDTRILVCGGDGSGVWVLS EIDSLNLHKQCQLGVLPLGTGNDLARVLGWGS  
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 SASLPPGTGSRDSL PALNTKILYPSVRAGMSGSLPGGSVSRLLINADPFNAEPENLEYYTEKVMNNYF  
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 DEGVPVQVDGEAWIQPPGYIRIVHKNRAQTLTRDRAFENTLKSWEKQKCELSRPPSFLHPEILSEEEA  
 TQMDQFGQAAGGLIHSIREIAQSHRAMEQELAHAVNASSKAMERVYGKPRTAEGLNCSFVLEMVNNIRAL  
 RSETELLLAGKMALQLDPPQKERLGAAL IEMDQQLRKL TDTPWLCQPLEPGEEESLQQNVMLDLTKRSRS  
 GKFRLVTKFKKEKNNKNKEVHNSLGGPVHLWGTEEVAAWLEHLSLCEYKDI FTRHDIRGSELLHLERRDL  
 KDLGVTKVGHMKRILCGIKELSRSSPAAEA

TRTRPLE - GFP Tag - V

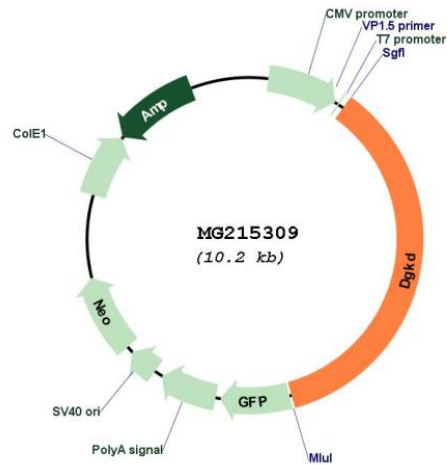
Restriction Sites:

SgfI-MluI

Cloning Scheme:



## Plasmid Map:



ACCN: NM\_177646

ORF Size: 3660 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\\_177646.3](#), [NP\\_808314.2](#)

RefSeq Size: 5694 bp

RefSeq ORF: 3663 bp

Locus ID: 227333

UniProt ID: [E9PUQ8](#)

Cytogenetics: 1 D

**Gene Summary:**

Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:17021016). 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 (PubMed:17021016). By controlling the levels of diacylglycerol, regulates for instance the PKC and EGF receptor signaling pathways and plays a crucial role during development (PubMed:17021016). May also regulate clathrin-dependent endocytosis (By similarity).[UniProtKB/Swiss-Prot Function]