

## Product datasheet for MC223463

### Dgki (NM\_001081206) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dgki (NM\_001081206) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Dgki  
**Synonyms:** C130010K08Rik  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC223463 representing NM\_001081206  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGATGCTGCGGAAGGGGCTGCCATTTGCTGCCCTGCCAGCGCGCGCGGACCTGCCCGCTCCCG  
 CCGCTCCAGCGCCCTCAGCCCGACCGGCTCTGCAGCGGCACCCTCGGCTTCTTTCGCGCCGCGCG  
 AGCGGTGCCATGAACCCAGCTCCTCGCGGGAGAGGAGAGAGGGGCGACGGGTGCCAGCAGCAGCAGC  
 GGAAGCGCGCCCGGAGCTGCTGCCTGGCGCCGAGGGCGCGCGGACCCGCGGGGTGCAGGGGCAGCGG  
 CTGCTGCTGCCTTGAGGAGCCCGCGCCCGGACAGAAAGAGAAGGAAGAGGGCTGGAGGAGAAGCT  
 GAGGGACTTAACCTTCCGGAAGCAGGTCTCTTACAGGAAAGCCATCTCCCGGACAGGCCTCCAGCATCTG  
 GCACCTGCACATCCTCTTGGTCTTCTGTGGCTAACGGTCCAGCGAAGGAGCCAGAGCCACTCTGGACT  
 GGAGCGAAGTGTGAATGGGAGCACCTGTGGCTGGAGACCAACGTTTCAGGGGACCTCTGCTACCT  
 GGGGAGGAGAAGTGCCTAAGTCCGATTTGCAAAATCCGCTCTCAGGAGGAAGTGTGCCGTGCAAAATC  
 GTGGTCCACACAGCCTGCATTGAGCAACTAGAGAAGATTAATTTTCAGATGTAACCAACATTTTCGGAAG  
 GAGGCTCCAGATCGCCAAGAGAAAACCTTTGTGCTCACCCTGGGTCACAGGAGCGGAGGAGGAA  
 ATGTAAGCAGTGTGGTAAGGGCTTCCAGCAAAAGTTCTCCTTCCACAGTAAAGAGATCGTGGCCATCAGC  
 TGTTCTTGGTGCAAGCAGCGTTTCAACAATAAAGTGACCTGCTTCATGCTGCATCATATTGAGGAACCT  
 GCTCCCTGGGGCTCACGCCGCTGTTATTGTCCCGCCACCTGGATCATTAAAGTGAAGAAACCTCAGAA  
 CTCCCTGAAGGCTTCCAACCGGAAGAAGAAGAGGACAAGTTTTAAAGGAAAGCCAGTAAAGAGGAACT  
 GAGCAGGAAACCAAGGCGCTCTTTTGTGATCAAGCCATCTCCTCCCTCTCATGAAGCCTTTGCTTG  
 TCTTTGTGAACCAAGAGTGGGGAAACCAGGAAACCAAGTCTACAGATGTTTATGTGGTACCTGAA  
 TCCACGGCAAGTCTTTGATCTTTCTCAGGAAGGCAAAAGATGCGCTGGAGATGTACAGGAAGGTACCA  
 AATCTGAGAATTCTGGCTGCGGTGGGATGGAACGGTGGCTGGATCCTCTCCATCCTGGACGAGCTGC  
 AGCTGAGCCACAGCCTCCTGTGGGGTCTTCCACTGGGACTGGGAATGACCTGGCTCGGACGCTCAA  
 CTGGGGAGGGGTTACACCGATGAGCCTGTTTCTAAGATCCTGTGCCAGGTGGAAGATGGGACCATTGTA  
 CAGTTGGATCGCTGGAACCTCCACGTAGAGAGAAAACCCAGACCTGCCGCCGAAGAACTGAAGATGGCG



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TGTGTAAGCTTCCTCTGAATGTCTTCAATAAATTAATTCAGCCTTGGATTTGATGCTCACGTCACATTGGA  
 GTTCCATGAATCCCGAGAAGCAAATCCAGAGAAATTAATAGTCGTTTTTCGAAATAAAATGTTCTATGCA  
 GGGGCAGCCTTTTCTGATTTCTACAAAGAAGTTCTAGAGATCTATCCAAACACGTCAAAGTTGTCTGTG  
 ATGGGACAGACCTCACCCCAAAGATCCAGGACCTGAAGTTCCAGTGTATAGTATTTTTAAATATTTCCAG  
 ATATTGTGCTGGCACAATGCCTTGGGAAACCCCTGGAGATCATCATGACTTTGAACCCCAACGTCATGAT  
 GACGGCTACATTGAAGTCATTGGATTCACTATGGCCTCTTTGGCTGCCCTGCAAGTTGGGGGCACGGAG  
 AAAGCTGCACCAGTGTGCGGAAGTGATGCTTCTGACTTACAAGTCCATCCCATGCAAGTGGACGGGGA  
 GCCATGTCGGTTGGCACCTGCTATGATTCGGATCTCCTTGAGGAATCAGGCCAACATGGTACAGAAGAGC  
 AAGCGGAGAACCTCGATGCCTTTGCTCAATGACATCCATCAGGTGCAAGCTGCGGACCTGCGCGAGTGT  
 CTGCTCCCCCGGCTCCTTACCATTCCCCAGTCTGTCCAGATCGCCTGAGGATCCGTGTGAACAAAAT  
 CAGTTTACAAGACTATGAAGGACTCCACTATGACAAGGACAACTCCGGGAAGCTTCCATCCCTCTGGGT  
 ATTCTAGTTGTTCTGGAGACTGTGATTTGGAGACTTGCCGTATGTACATAGACCGTCTACAGGAGGACT  
 TGCAGTCAGTTTCTTCTGGGTACAGAGAGTTCATTACCAGGACCAAGAACTCCTTCCCAGGGCACT  
 CTCAGCTCAGAGGCTGTCCCACGGTGGTCTTCTAGATGCAACGTCTGCTGACCGCTTTTATCGAATA  
 GACAGATCTCAGGAACATTTGCACCTTTGTGATGGAGATTCTCAGATGAAATTTTTATTCTGGACCCAG  
 ATATGGTGGTGTACAGCAGGCAGGACCCCTCCAGGAATGCCTGACCTGGTGGTGAACAGGCTTCTGG  
 GCTGTCTGACTGGTGAACCCCTGCCCTGAGGAAACGTATGCTGAGTGACAGTGGGATGATCACACCCAC  
 TATGAGGACTCAGATCTGAAAGACTTCAGCCACTCCAGAGTGTACAGTCCCAGTCTCTTCCAGAAGATC  
 ATGCAATTTTGCAGGCAGTCTCACCGGTGACCTTATGAAGCTCATGGAGAGCTATAAGAATGGAGGGAG  
 CTTACTAATTCAGGGACCAAGGCACTGTCTCTCCTTCACTACGCAGCTAAGACCGGCAATGGGGACATT  
 GTGAAGTACATCCTTGACCACGGACCTGCAGAATTACTGGATATGGCAGACAGTAAACCGGGCAGACTG  
 CACTGCACAAGGCTGCCTGCCAAAGGAACCGGGCTGTATGCCAGTCTTGGTGGATGCAGGAGCATCTCT  
 GAGACAGACAGACTCCAAGGGCAAGACACCCAGGAACGAGCACAGCAGGCCGGGACCCAGATTTGGCT  
 GCTTACCTAGAAAAGCCGACAGAACTATAAGATCATTGGCCATGAAGACCTGGAACCTGCTGTTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-MluI

**ACCN:**

NM\_001081206

**Insert Size:**

3216 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\_001081206.1, NP\_001074675.1

**RefSeq Size:**

4598 bp

RefSeq ORF: 3216 bp

Locus ID: 320127

UniProt ID: [D3YWQ0](#)

Cytogenetics: 6 B1

**Gene Summary:** Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids. 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. Has probably no preference for any of the diacylglycerols in terms of the acyl chain composition, especially for the acyl chain at the sn-2 position (By similarity). By controlling the diacylglycerol/DAG-mediated activation of RASGRP3, negatively regulates the Rap1 signaling pathway (PubMed:15894621). May play a role in presynaptic diacylglycerol/DAG signaling and control neurotransmitter release during metabotropic glutamate receptor-dependent long-term depression (PubMed:21119615).[UniProtKB/Swiss-Prot Function]