

## Product datasheet for **RC218968**

### DGKA (NM\_201445) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DGKA (NM_201445) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DGKA
Synonyms:	DAGK; DAGK1; DGK-alpha
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC218968 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGCCAAGGAGAGGGGCTAATAAGCCCCAGTGATTTTGCCAGCTGCAAAAATACATGGAATACTCCA  
CCAAAAAGGTCAGTGATGTCCTAAAGCTCTTCGAGGATGGCGAGATGGCTAAATATGTCCAAGGAGATGC  
CATTGGGTACGAGGGATTCCAGCAATTCCTGAAAATCTATCTCGAAGTGGATAATGTTCCAGACACCTA  
AGCCTGGCACTGTTTCAATCCTTTGAGACTGGTCACTGCTTAAATGAGACAAATGTGACAAAAGATGTGG  
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AGCCAGAAGACCATGGATGATTTAAATTTGAGCACCTCTGAGGCTCTGCGGATTGACCCTGTTCTAACA  
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TGCTCCAACCTCTGGGTGATACCAGGAGACCCATGGGGATATCTATGGGATCAACCAGGCCCTTAGGT  
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CCCTGGATGCAGACGCCCTGTACAATCAAGATCACCCACAAGAACCAGATGCCATGCTCATGGGCCAC  
CCCCCGCTCCACCAATTTCTTTGGCTTCTTGAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC218968 protein sequence  
 Red=Cloning site Green=Tags(s)

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MAKERGLISPSDFALQKQYMEYSTKKVSDVLKLFEDGEMAKYVQGDAIGYEGFQQFLKIYLEVDNVPRHL
SLALFQSFETGHCLNETNVTKDVVCLNDVSCYFSLLEGGRPEDKLEFTFKLYDTRNGILDSSEVDKIIL
QMMRVAEYLDWDVSELRPILQEMMKEIDYDGSVSQAEWVRAGATTVPLLVLGLEM TLKDDGQHMWRP
KRFRPRVYCNLCESSIGLGKQGLSCNLCKYTVHDQCAMKALPCEVSTYAKSRKDIGVQSHVWVRGGCESG
RCDRCQKKIRIYHSLTGLHCVWCHLEIHDDCLQAVGHECDCGLLRDHILPPSSIYPSVLASGPDRKNSKT
SQKTMDDLNLSTSEALRIDPVPNTHPLLVFVNPKSGGKQGQRVWLKWFQYILNPRQVFNLLKDGPEIGLRL
FKDVPDSRILVCGGDGTGVWILETIDKANLPVLPVAVLPLGTGNDLARCLRWGGYEGQNLAKILKDL
MSKVVHMDRWSVEVIPQQTEEKSDPVFQIINNYFSIGVDASIAHRFHIMREKYPEKFNSRMKNLWYFE
FATSEIFSTCKKLEESLVEICGKPLDLSNLSLEGI AVLNIPSMHGGSNLWGDTRRPHGDIYGINQALG
ATAKVITDPDILKTCVPLSDKRLEVVGLEGAIE MGQIYTKLKNAGRRLAKCSEITFHTTKLPMQIDG
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```

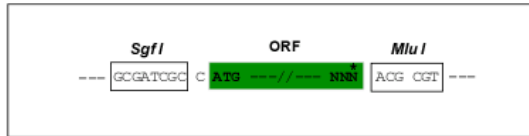
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6044\\_d03.zip](https://cdn.origene.com/chromatograms/mk6044_d03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_201445

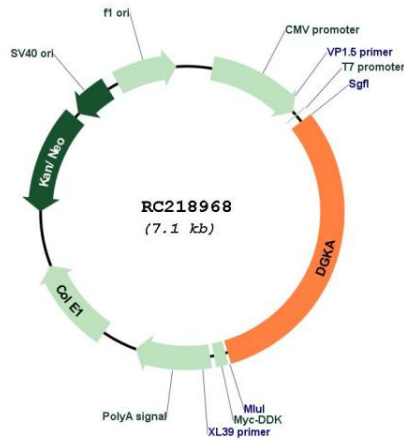
**ORF Size:** 2205 bp

**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](#)

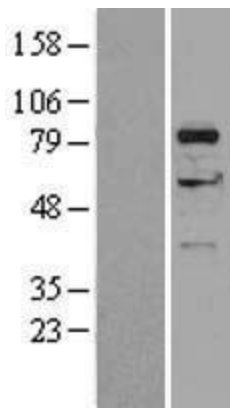
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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><a href="#">NM_201445.1</a></u> , <u><a href="#">NP_958853.1</a></u>
<b>RefSeq Size:</b>	2769 bp
<b>RefSeq ORF:</b>	2208 bp
<b>Locus ID:</b>	1606
<b>UniProt ID:</b>	<u><a href="#">P23743</a></u>
<b>Cytogenetics:</b>	12q13.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Glycerolipid metabolism, Glycerophospholipid metabolism, Metabolic pathways, Phosphatidylinositol signaling system
<b>MW:</b>	82.6 kDa
<b>Gene Summary:</b>	The protein encoded by this gene belongs to the eukaryotic diacylglycerol kinase family. It acts as a modulator that competes with protein kinase C for the second messenger diacylglycerol in intracellular signaling pathways. It also plays an important role in the resynthesis of phosphatidylinositols and phosphorylating diacylglycerol to phosphatidic acid. Several transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Apr 2017]

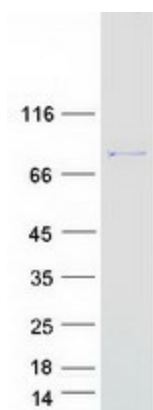
Product images:



Circular map for RC218968



Western blot validation of overexpression lysate (Cat# [LY400535]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC222395] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DGKA protein (Cat# [TP318968]). The protein was produced from HEK293T cells transfected with DGKA cDNA clone (Cat# RC218968) using MegaTran 2.0 (Cat# [TT210002]).