

Product datasheet for **RC220293**

DGKA (NM_201554) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DGKA (NM_201554) 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:**

>RC220293 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCAAGGAGAGGGGCTAATAAGCCCCAGTGATTTGCCAGCTGCAAAAATACATGGAATACTCCA
 CAAAAAGGTCAGTGATGTCTAAAGCTCTTCGAGGATGGCGAGATGGCTAAATATGTCCAAGGAGATGC
 CATTGGGTACGAGGGATTCCAGCAATTCCTGAAAATCTATCTCGAAGTGGATAATGTTCCAGACACCTA
 AGCCTGGCACTGTTTCAATCCTTTGAGACTGGTCACTGCTTAAATGAGACAAATGTGACAAAAGATGTGG
 TGTGTCTCAATGATGTTTCTGTACTTTTCCCTTCTGGAGGGTGGTCGGCCAGAAGACAAGTTAGAATT
 CACCTTCAAGCTGTACGACACGGACAGAAATGGGATCCTGGACAGCTCAGAAGTGGACAAAATTATCCTA
 CAGATGATGCGAGTGGCTGAATACCTGGATTGGGATGTGTCTGAGCTGAGGCCGATTCTTCAGGAGATGA
 TAAAAGAGATTGACTATGATGGCAGTGGCTCTGTCTCTCAAGCTGAGTGGTCCGGGCTGGGCCACCAC
 CGTGCCACTGCTAGTGTCTGGTCTGGAGATGACTCTGAAGGACGACGGACAGCACATGTGGAGGCC
 AAGAGGTTCCCCAGACCAGTCTACTGCAATCTGTGCGAGTCAAGCATTGGTCTTGGCAAACAGGGACTGA
 GCTGTAACCTCTGTAAGTACACTGTTACAGACCAGTGTGCCATGAAAGCCCTGCCTTGTGAAGTCAGCAC
 CTATGCCAAGTCTCGAAGGACATTGGTGTCCAATCACATGTGTGGTGGCAGGAGGCTGTGAGTCCGGG
 CGCTGCGACCGTGTGAGAAAAGATCCGGATCTACCACAGTCTGACCGGCTGCATTGTGTATGGTGCC
 ACCTAGAGATCCACGATGACTGCCTGCAAGCGTGGGCCATGAGTGTGACTGTGGGCTGCTCCGGGATCA
 CATCTGCCTCCATCTTCCATCTATCCCAGTGTCTGGCTCTGGACCGGATCGTAAAAATAGCAAAAACA
 AGCCAGAAGACCATGGATGATTTAAATTTGAGCACCTCTGAGGCTCTGCGGATTGACCCTGTTCTAACA
 CCCACCCACTTCTCGTCTTTGTCAATCTAAGAGTGGCGGAAGCAGGGGCAGAGGGTCTCTGGAAGTT
 CCAGTATATATTAACCCCTCGACAGGTGTTCAACCTCCTAAAGGATGGTCTGAGATAGGGCTCCGATTA
 TTCAAGGATGTTCTGATAGCCGGATTTTGGTGTGGTGGAGACGGCACAGTAGGCTGGATTCTAGAGA
 CCATTGACAAAGCTAACTTGCCAGTTTTGCCTCCTGTTGTGTGTGCCCTGGTACTGGAATGATCT
 GGCTCGATGCCTAAGATGGGGAGGAGTTATGAAGGACAGAATCTGGCAAAGATCCTCAAGGATTTAGAG
 ATGAGTAAAGTGGTACATATGGATCGATGGTCTGTGGAGGTGATACCTCAACAACTGAAGAAAAAGTG
 ACCCAGTCCCCTTCAAATCATCAATAACTACTTCTCTATTGGCGTGGATGCCTCTATTGCTCATCGATT
 CCACATCATGCGAGAGAAATATCCGGAGAAGTTCAACAGCAGAATGAAGAACAAGCTATGGTACTTCGAA
 TTTGCCACATCTGAATCCATCTTCTCAACATGCAAAAAGCTGGAGGAGTCTTTGACAGTTGAGATCTGTG
 GAAACCCTGGATCTGAGCAACCTGTCCCTAGAAGGCATCGCAGTGTAAACATCCCTAGCATGCATGG
 TGGCTCCAACCTCTGGGGTGTATACCAGGAGACCCATGGGGATATCTATGGGATCAACCAGGCCCTTAGGT
 GCTACAGCTAAAGTATCACCGACCCTGATATCCTGAAAACCTGTGTACCAGACCTAAGTACAAGAGAC
 TGGAAAGTGGTGGGCTGGAGGGTCAATTGAGATGGGCCAAATCTATACCAAGCTCAAGAATGCTGGACG
 TCGGCTGGCCAAGTGTCTGAGATCACCTTCCACACCACAAAACCCCTCCCATGCAAATGACGGAGAA
 CCCTGGATGCAGACGCCCTGTACAATCAAGATCACCCACAAGAACCAGATGCCATGCTCATGGGCCAC
 CCCCCGCTCCACCAATTTCTTTGGCTTCTTGAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220293 protein sequence
 Red=Cloning site Green=Tags(s)

MAKERGLISPSDFALQKQYMEYSTKKVSDVLKLFEDGEMAKYVQGD AIGYEGFQQFLKIYLEVDNVP RHL
 SLALFQSFETGHCLNETNVTKDVVCLNDVSCYFSLLEGGRPEDKLEFTFKLYDTRNGILDSSEVDKIIL
 QMMRVAEYLDWDVSELRPILQEMMKEIDYDGSVSQA EWVRAGATTVPLLVLLGLEMTLKDDGQH MWRP
 KRFRPRVYCNLCESSIGLGKQGLSCNLCKYTVHDQCAMKALPCEVSTYAKSRKDIGVQSHVWVRGGCESG
 RCDRCQKKIRIYHSLTGLHCVWCHLEIHDDCLQAVGHECDCGLLRDHILPPSSIYPSVLASGPDRKNSKT
 SQKTMDDLNLSTSEALRIDPVPNTHPLL VFNPKSGGKQGQRV LKWFQYILNPRQVFNLLKDGPEIGLR L
 FKDV PDSRILVCGGDGTGVWILETIDKANLPVLPVAVLPLGTGNDLARCLRWGGGYEQNLAKILKDL E
 MSKVVHMDRWSVEVIPQQTEEKSDPVFQIINNYFSIGVDASIAHRFHIMREKYPEKFNSRMKNKLWYFE
 FATSEIFSTCKKLEESL TVEICGKPLDLSNLSLEGI AVLNIPSMHGGSNLWGDTRRPHGDIYGINQALG
 ATAKVITDPDILKTCV PDLSDKRLEVVGLEGAIEMGQIYTKLKNAGRRLAKCSEITFH TTKLTPMQIDGE
 PWMQTPTIKITHKNQMPMLMGPPRSTNFFGFLS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6565_e11.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_201554

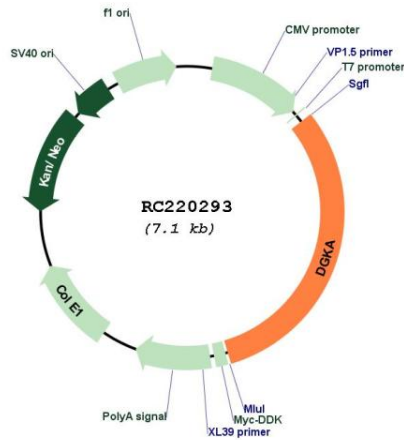
ORF Size: 2205 bp

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](#)

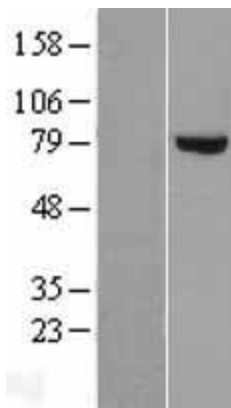
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_201554.1</u> , <u>NP_963848.1</u>
RefSeq Size:	2669 bp
RefSeq ORF:	2208 bp
Locus ID:	1606
UniProt ID:	<u>P23743</u>
Cytogenetics:	12q13.2
Protein Families:	Druggable Genome
Protein Pathways:	Glycerolipid metabolism, Glycerophospholipid metabolism, Metabolic pathways, Phosphatidylinositol signaling system
MW:	82.6 kDa
Gene Summary:	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]

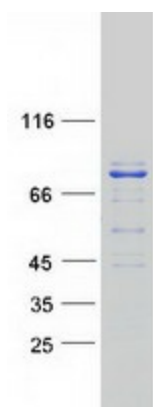
Product images:



Circular map for RC220293



Western blot validation of overexpression lysate (Cat# [LY404458]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220293 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DGKA protein (Cat# [TP320293]). The protein was produced from HEK293T cells transfected with DGKA cDNA clone (Cat# RC220293) using MegaTran 2.0 (Cat# [TT210002]).