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Product datasheet for RC214133

DGKG (NM_001080745) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DGKG (NM_001080745) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DGKG
Synonyms:	DAGK3; DGK-GAMMA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214133 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGTGAAGAACGGTGGGTCTCCCTCACTCCAGAAGAATTTGACCAACTCCAGAAATATTCAGAATATT
CCTCCAAGAAGATAAAAGATGCCTTGACTGAATTTAATGAGGGTGGGAGCCTCAAACAATATGACCCACA
TGAGCCGATTAGCTATGATGTCTTCAAGCTGTTCATGAGGGCGTACCTAGAGGTGGACCTTCCCCAGCCA
CTGAGCACTCACCTCTTCCTGGCCTTCAGCCAGAAGCCCAGACACGAGACCTCTGACCACCCGACGGAGG
GAGCCAGCAACAGTGAGGCCAACAGCGCAGATACTAATATACAGAATGCAGATAATGCCACCAAAGCAGA
CGAGGCCTGTGCCCCTGATACTGAATCAAATATGGCTGAGAAGCAAGCACCAGCTGAAGACCAAGTGGCT
GCGAGCCCCCTGGAACCCCCCGTCCCTCGGTCTTCAAGCTCGGAATCCCCAGTGGTGTACCTGAAGGATG
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TGATTCAGATGAGAACGGTCTCCTGGACCAAGCGGAGATGGATTGCATTGTCAACCAAATGCTGCATATT
GCCCAGTACCTGGAGTGGGATCCCACAGAGCTGAGGCCTATATTGAAGGAGATGCTGCAAGGGATGGACT
ACGACCGGGACGGCTTTGTGTCTCTACAGGAATGGGTCCATGGAGGGATGACCACCATCCCATTGCTGGT
CCTCCTGGGGATGGATGACTCTGGCTCCAAGGGGGATGGGCGGCACGCCTGGACCATGAAGCACTTCAAG
AAACCAACCTACTGCAACTTCTGCCATATCATGCTCATGGGCGTCCGCAAGCAAGGCCTGTGCTGCACTT
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GCGTGTCCGCCAAGGGCGAACTTGTCATGCAGTATAAGATCATCCCCACCCCGGGTACCCACCCCCTGCT
GGTCTTGGTGAACCCCAAGAGTGGAGGGAGACAAGGAGAAAGAATTCTTCGGAAATTCCACTATCTGCTC
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CAGACTTCCGTGTTTTGGCCTGTGGTGGAGATGGGACAGTTGGCTGGATTTTGGATTGCATTGATAAGGC
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GAGAAACATCCTGAAAAATTCAACAGCAGGATGAAGAACAAGCTGTGGTACTTTGAATTTGGCACCTCGG
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TGGGGAGAAAACAAGAAGAACCGGGCTGTGATCCGGGAAAGCAGGAAGGGTGTCACTGACCCCAAAGAAC
TGAAATTCTGCGTTCAAGACCTCAGTGACCAGCTCCTTGAAGTGGTGGGGCTAGAAGGAGCCATGGAGAT
GGGGCAGATCTACACCGGCCTGAAGAGTGCAGGCAGGAGGCTGGCCCAGTGCGCCTCTGTCACCATCAGG
ACAAACAAGCTGCTGCCAATGCAAGTGGATGGAGAACCCTGGATGCAGCCATGTTGCACGATTAAAATTA
CTCACAAGAACCAAGCGCCCATGATGATGGGGCCTCCCCAGAAGAGCAGCTTCTTCTCGTTGAGAAGGAA
GAGCCGTTCAAAAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214133 protein sequence
Red=Cloning site Green=Tags(s)

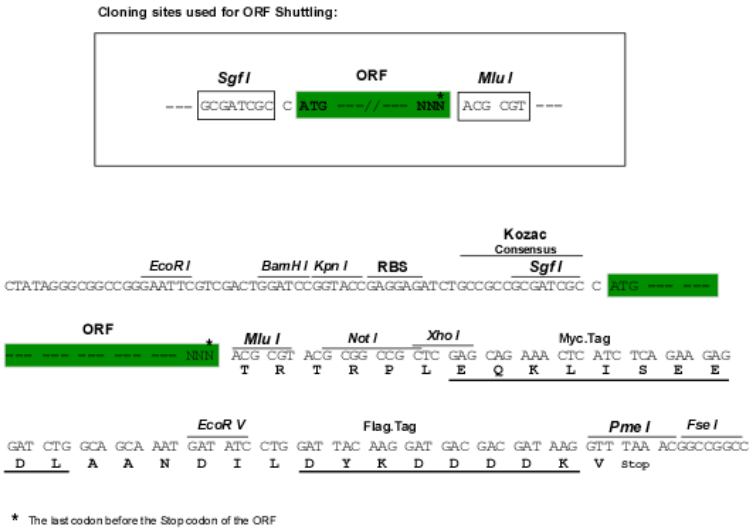
MGEERWVSLTPEEFDQLQKYSEYSSKKIKDALTEFNEGGSLKQYDPHEPISYDVFKLFMRAYLEVDLPQP
LSTHLFLAFSQKPRHETSDHPTEGASNSEANSADTNIQNADNATKADEACAPDTESNMAEKQAPAEDQVA
ASPLEPPVPRSSSSESPVVYLKDVVCYLSLLETGRPQDKLEFMFRLYDSDENGLLDQAEMDCIVNQMLHI
AQYLEWDPTELRPILKEMLQGMDYDRDGFVSLQEWVHGGMTTIPLLVLLGMDDSGSKGDGRHAWTMKHFK
KPTYCNFCHIMLMGVRKQGLCCTYCKYTVHERCVSKNIPGCVKTYSKAKRSGEFHRKCELSTLCDGGELR
DHILLPTSICPITRDRPGEKSDGCVSAKGELVMQYKIIPTPGTHPLLVLVNPKSGGRQGERILRKFHYLL
NPKQVFNLDNGGPTPGLNFFRDTPDFRVLACGGDGTVGWILDCIDKANFAKHPPVAVLPLGTGNDLARCL
RWGGGYEGGSLTKILKDIEQSPLVMLDRWHLEVIPREEVENGDQVPYSIMNNYFSIGVDASIAHRFHVMR
EKHPEKFNSRMKNKLWYFEFGTSETFAATCKKLHDHIELECDGVGVDLSNIFLEGIAILNIPSMYGGTNL
WGENKKNRAVIRESRKGVTDPKELKFCVQDLSDQLLEVVGLEGAMEMGQIYTGLKSAGRRLAQCASVTIR
TNKLLPMQVDGEPWMQPCCTIKITHKNQAPMMMGPPQKSSFFSLRRKSRSKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6561_c11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001080745

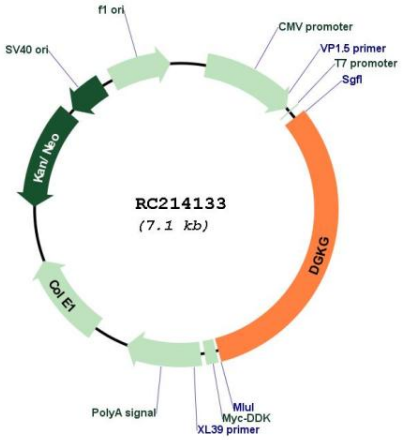
ORF Size: 2256 bp

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

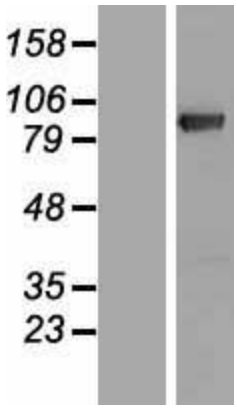
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001080745.1, NP_001074214.1
RefSeq Size:	5701 bp
RefSeq ORF:	2259 bp
Locus ID:	1608
UniProt ID:	P49619
Cytogenetics:	3q27.2-q27.3
Protein Families:	Druggable Genome
Protein Pathways:	Glycerolipid metabolism, Glycerophospholipid metabolism, Metabolic pathways, Phosphatidylinositol signaling system
MW:	84.5 kDa
Gene Summary:	This gene encodes an enzyme that is a member of the type I subfamily of diacylglycerol kinases, which are involved in lipid metabolism. These enzymes generate phosphatidic acid by catalyzing the phosphorylation of diacylglycerol, a fundamental lipid second messenger that activates numerous proteins, including protein kinase C isoforms, Ras guanyl nucleotide-releasing proteins and some transient receptor potential channels. Diacylglycerol kinase gamma has been implicated in cell cycle regulation and in the negative regulation of macrophage differentiation in leukemia cells. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

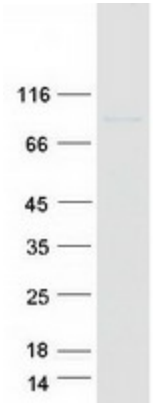
Product images:



Circular map for RC214133



Western blot validation of overexpression lysate (Cat# [LY421107]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214133 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DGKG protein (Cat# [TP314133]). The protein was produced from HEK293T cells transfected with DGKG cDNA clone (Cat# RC214133) using MegaTran 2.0 (Cat# [TT210002]).