

Product datasheet for **RC205327**

DGKZ (NM_003646) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DGKZ (NM_003646) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DGKZ
Synonyms:	DAGK5; DAGK6; DGK-ZETA; hDGKzeta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC205327 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCCCGGGACGGTAGCCCCGAGGCCGGAGCAGCGACTCCGAGTCGGCTTCGCCTCGTCCAGCG
 GCTCCGAGCGCGACGCCGTCCCGAGCCGACAAGGCGCCGGCGACTCAACAAGCGGCCGCTTCCCGGG
 GCTGCGGCTCTTCGGGCACAGGAAAGCCATCACGAAGTCGGCCTCCAGCACCTGGCCCCCTCCGCC
 ACCCTGGGGCCCGTGCAGCGAGTCAGAGCGGCAGATCCGGAGTACAGTGGACTGGAGCGAGTCAGCGA
 CATATGGGAGCACATCTGGTTCGAGACCAACGTGTCCGGGACTTCTGCTACGTTGGGAGCAGTACTG
 TGTAGCCAGGATGCTGCAGAAGTCAGTGTCTCGAAGAAAGTGCAGCAGCTGCAAGATTGTGGTGCACACG
 CCCTGCATCGAGCAGCTGGAGAAGATAAATTTCCGCTGTAAAGCCGCTCTCCGTGAATCAGGCTCCAGGA
 ATGTCCCGAGCCAACCTTTGTACGGCACCCTGGGTACACAGACGACGCCAGGACGGCAAGTGTCCGCA
 CTGTGGGAAGGGATTCCAGCAGAAGTTCACCTTCCACAGCAAGGAGATTGTGGCCATCAGCTGCTCGTGG
 TGC AAGCAGGCATACCACAGCAAGGTGTCTGCTTCATGCTGCAGCAGATCGAGGAGCCGTGCTCGCTGG
 GGGTCCACGCAGCCGTGGTTCATCCCGCCACCTGGATCCTCCGCGCCCGAGGCCCCAGAATACTCTGAA
 AGCAAGCAAGAAGAAGAAGAGGGCATCCTTCAAGAGGAAGTCCAGCAAGAAAGGGCCTGAGGAGGGCCGC
 TGGAGACCCTTCATCATCAGGCCACCCCTCCCGCTCATGAAGCCCTGCTGGTGTGTGTGAACCCCA
 AGAGTGGGGCAACCAGGGTGC AAAGATCATCCAGTCTTCTCTGGTATCTCAATCCCCGACAAGTCTT
 CGACCTGAGCCAGGAGGGCCCAAGGAGGCGTGGAGATGTACCGCAAAGTGCACAACCTGCGGATCCTG
 GCGTGGGGGGCAGCGCACGGTGGGCTGGATCCTCTCCACCTGGACCAGTACGCCTGAAGCCGCCAC
 CCCCTGTTGCCATCCTGCCCTGGGTACTGGCAACGACTTGGCCGAACCCTCAACTGGGGTGGGGCTA
 CACAGATGAGCCTGTGTCCAAGATCCTCTCCACAGTGGAGGAGGGGAACGTGGTACAGCTGGACCGCTGG
 GACCTCCACGCTGAGCCCAACCCGAGGACGGCCTGAGGACCGAGATGAAGCGCCACCGACCGGTTGC
 CCCTGGATGTCTTCAACAATACTTTCAGCCTGGGCTTTGACGCCACGTACCCTGGAGTTCACAGAGTC
 TCGAGAGGCCAACCCAGAGAAAATCAACAGCCGCTTTCGGAATAAGATGTTCTACGCCGGGACAGCTTTC
 TCTGACTTCTGATGGGCAGCTCCAAGGACCTGGCCAAGCACATCCGAGTGGTGTGTGATGGAATGGACT
 TGACTCCCAAGATCCAGGACCTGAAACCAAGTGTGTTGTTTCTGAACATCCCCAGGTAAGTGTGCGGG
 CACCATGCCCTGGGGCCACCCTGGGAGCACCAGACTTTGAGCCCCAGCGGCATGACGACGGCTACCTC
 GAGGTCAATTGGCTTACCATGACGTCGTTGGCCGCGCTGCAGGTGGCGGACACGCGGAGCGGCTGACGC
 AGTGTCCGAGGTTGGTGTCAACCACATCCAAGGCCATCCCGGTGCAGGTGGATGGCGAGCCCTGCAAGCT
 TGCAGCCTCACGCATCCGCATCGCCTGCGCAACCAGGCCACCATGGTGCAGAAGGCCAAGCGGGGAGC
 GCCGCCCCCTGCACAGCGACCAGCAGCCGGTGCAGAGCAGTTGCGCATCCAGGTGAGTCGCGTCAGCA
 TGCACGACTATGAGGCCCTGCACTACGACAAGGAGCAGCTCAAGGAGGCCCTGTGTCCGCTGGGCACTGT
 GGTGGTCCCAGGAGACAGTGACCTAGAGCTTGGCGTGGCCACATTGAGAGACTCCAGCAGGAGCCCGAT
 GGTGCTGGAGCCAAGTCCCCGACATGCCAGAACTGTCCCCAAGTGGTGTCTCTGGACGCCACCCTG
 CCAGCCGCTTCTACAGGATCGACCGAGCCAGGACCTCAACTATGTGACTGAGATCGCACAGGATGA
 GATTTATATCCTGGACCCTGAGCTGCTGGGGGCATCGGCCGGCCTGACCTCCCAACCCCACTTCCCCT
 CTCCCCACCTCACCTGCTCACCCACGCCCGGTCACTGCAAGGGGATGCTGCACCCCTCAAGGTGAAG
 AGCTGATTGAGGCTGCCAAGAGGAACGACTTCTGTAAGTCCAGGAGCTGCACCGAGCTGGGGGCGACCT
 CATGCACCGAGACGAGCAGAGTCGACGCTCCTGCACCACGAGTCAAGTGGCAGCAAGGATGTGGTC
 CGTACCTGCTGGACCACGCCCCCCAGAGATCCTTGTGCGGTGGAGGAAAACGGGGAGACCTGTTTGC
 ACCAAGCAGCGGCCCTGGGCCAGCGCACCATCTGCCACTACATCGTGGAGGCCGGGGCTCGCTCATGAA
 GACAGACCAGCGGGCAGACTCCCGGCAGCGGGCTGAGAAGGCTCAGGACACCGAGCTGGCCGCTAC
 CTGGAGAACCAGCAGCACTACCAGATGATCCAGCGGGAGGACCAGGAGACGGCTGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205327 protein sequence
 Red=Cloning site Green=Tags(s)

```
MEPRDGSPEARSSDSESASASSGSRDAGPEPDKAPRRLNKRFPGLRFLGHRKAITKSLQHLAPPPP
TPGAPCSESERQIRSTVDWSESATYGEHIWFETNVSGDFCYVGEQYCVARMLQKSVSRRKCAACKIVVHT
PCIEQLEKINFRCKPSFRESGSRNVREPTFVRHHWVHRRRQDGKCRHCGKGFQQKFTFHSKEIVAISSCW
CKQAYHSKVSFCMLQQIEEPCSLGVHAAVVIPPTWILRARRPQNTLKASKKKKRASFKRKSSKKGPEEGR
WRPFIIRPTSPMLKPLLVFVNPKSGGNQGAIIQSFLWYLNPRQVFDLSQGGPKEALEMYRKVHNLRLIL
ACGGDGTVGWILSTLDQLRLKPPPPVAILPLGTGNDLARTLNWGGGYTDEPVSKILSHVEEGNVVQLDRW
DLHAEPNPEAGPEDRDEGATDRLPLDVFNNYFSLGFDAHVTLFESREANPEKFNFRNKMFYAGTAF
SDFLMGSSKDLAKHIRVVCMDLTPKIQDLKPKCVVFLNIPRYCAGTMPWGHGPEHDFEPQRHDDGYL
EVIGFTMTSLAALQVGGHGERLTQCREVVLTTSKAIPVQVDGEPCKLAASRIALRNQATMVQKAKRRS
AAPLHSDQPVPVQLRIQVSRVSMHDYEALHYDKEQLKEASVPLGTVVVPGSDLELCRAHIERLQQEPD
GAGAKSPTCQKLSPKWCFDATTASRFYRIDRAQEHLYNVTIEAQDEIYILDPELLGASARPDLPPTSP
LPTSPCSPTRSLQDAAPPQGEELIEAAKRNDFCQLQELHRAGGDLMHRDEQSRTLHHAIVSTGSKDVV
RYLLDHAPPEILDAVEENGETCLHQAALGQRTICHYIVEAGASLMKTDQQGDTPRQRAEKAQDTELAAY
LENRQHYQMIQREDQETAV
```

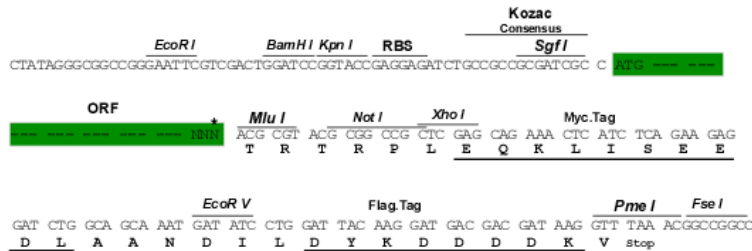
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6264_f07.zip

Restriction Sites: SgfI-MluI

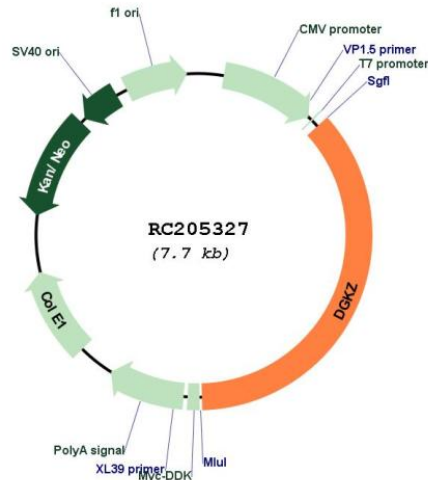
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_003646

ORF Size: 2787 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_003646.4](#)

RefSeq Size: 3659 bp

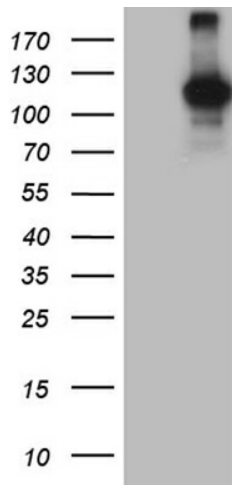
RefSeq ORF: 2790 bp

Locus ID: 8525

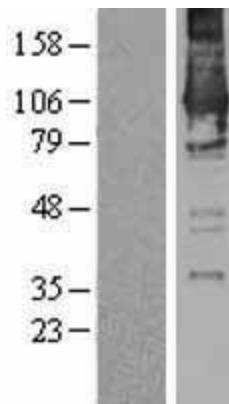
UniProt ID: [Q13574](#)

Cytogenetics: 11p11.2

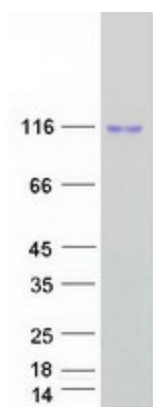
Domains:	DAGKa, DAGKc, ANK, DAG_PE-bind
Protein Families:	Druggable Genome
Protein Pathways:	Glycerolipid metabolism, Glycerophospholipid metabolism, Metabolic pathways, Phosphatidylinositol signaling system
MW:	104.1 kDa
Gene Summary:	The protein encoded by this gene belongs to the eukaryotic diacylglycerol kinase family. It may attenuate protein kinase C activity by regulating diacylglycerol levels in intracellular signaling cascade and signal transduction. Alternative splicing occurs at this locus and multiple transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Nov 2010]

Product images:


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DGKZ (Cat# RC205327, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DGKZ (Cat# [TA809946])(1:2000). Positive lysates [LY418529] (100ug) and [LC418529] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418529]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205327 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DGKZ protein (Cat# [TP305327]). The protein was produced from HEK293T cells transfected with DGKZ cDNA clone (Cat# RC205327) using MegaTran 2.0 (Cat# [TT210002]).