

Product datasheet for **RC224917**

CDKAL1 (NM_017774) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDKAL1 (NM_017774) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDKAL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224917 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**C

ATGCCTTCTGCATCCTGTGATACACTACTGGATGACATCGAAGATATCGTGTCTCAGGAAGATTCAAAC
 CACAAGATAGGCATTTTGTAAAGAAAGGATGTTGTCCGAAGGTACGAAGGCGAAATACCCAAAAATATT
 GCAAGAGGAAGAAAAACAGTCCACCAAGTGACAGCACTATTCCAGGCATACAGAAAATTTGGATACGAACA
 TGGGGTTGTTCTCATAATAATTCAGATGGAGAATATATGGCTGGACAGCTAGCTGCTTATGGCTATAAAA
 TTACAGAAAAATGCATCCGATGCAGATTTATGGCTCCTGAACAGTTGCACTGTAAAAAACCCAGCTGAAGA
 CCACCTTTAGAACTCAATTAAGAAAGCTCAAGAGGAGAACAGAAAAATCGTACTGGCTGGATGCGTTCCT
 CAAGCCCAGCCTCGCCAGGACTACCTTAAGGGACTGAGTATCATTGGGGTTCAGCAGATAGATCGTGTGG
 TAGAAGTTGTGGAGGAGACAATTAAGGTCACCTGTGAGACTGCTGGGTGAGAAAAAGGATAATGAAG
 GCGGCTTGGGGGAGCAGATTGGATTTGCCGAAGATTAGGAAGAATCCACTGATAGAAATCATTTCCATC
 AATACCGGTGTCTCAATGCTTGTACCTACTGCAAACTAAACACGCCAGAGGAAATTTGGCCAGTTATC
 CAATTGATGAAGTAGTAGATAGAGCCAAACAATCTTTCAAGAGGGTGTGTGTGAGATATGGTTGACCAG
 TGAAGACACGGGGGCTTATGGCAGAGATATTGGCACCAATCTCCCACTCCTGTGGAACTGGTTGAA
 GTGATTCCTGAGGGAGCAATGCTGAGGCTTGGCATGACAAATCCGCCCTATATTTAGAGCATCTGGAGG
 AAATGGCAAAATCCTTAATCACCCAGAGTCTACGCTTTCTGCACATACCAGTCCAGTCTGCCTCCGA
 CAGCGTACTCATGGAATGAAAAGAGAATACTGTGTGGCTGACTTCAAAAGAGTAGTGGATTTCTGAAA
 GAGAAAGTTCTTGAATAACTATTGCTACAGATATTATCTGTGGTTTTCTGGAGAAACAGATCAGGATT
 TTCAAGAAACAGTGAACTTGTGAAGAGTACAAATCCCAAGCCTGTTTATTAACCAATTTACCCAAG
 ACCAGGAACTCCTGCTGCAAAAATGGAACAAGTTCCAGCACAAGTGAAAAGCAAAGGACAAAAGATCTT
 TCTCGGTGTTTCATTCTTACAGTCCATATGATCACAAGATTGGTGAAAGACAACAAGTGTAGTAACAG
 AAGAATCTTTGATTCCAAGTTTATGTTGCACACAATCAATTCTATGAGCAGGTTTTAGTGCCAAAGAA
 CCCTGCGTTTATGGGAAGATGGTTGAAGTGGACATCTATGAATCAGGCAAACTTTTATGAAAGGGCAG
 CCAGTATCTGATGCCAAAGTGACACGCCCTCCATCAGCAAAACCGCTAGCAAAGGAGAGTCTCGGGTT
 TGACAAAGGACTTCAGAAATGGGCTTGGGAACAGCTGAGTTCAGGATCCACACCTCTGCTGCATCTCA
 GTGTGACTCAGCGAGTTCAGAATGGTGTGCCATGCCAAGGCTACATCAAGACTGTGCGCTGAGGATG
 TCCGTGGGCTTGGCTCTGCTGGGCTTCTTTTTGCTTTTTTTGTCAAGGTCTATAAT

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224917 protein sequence
 Red=Cloning site Green=Tags(s)

MPSASCDTLLDDIEDIVSQEDSKPQDRHFVRKDVVPKVRRRNTQKYLQEEENSPPSDSTIPGIQKIWIRT
 WGCSHNNSDGEYMAQLAAYGYKITENASDADLWLLNSCTVKNPEDHFRNSIKKAQEENKKIVLAGCVP
 QAQPRQDYKGLSIIGVQIDRVVEVEETIKGHSVRLLGQKKNRRLGGARLDLPKIRKNPLIEIISI
 NTGCLNACTYCKKHARGNLASYPIDELVDRAKQSFQEGVCEIWLTS EDTGAYGRDIGTNLPTLLWKLVE
 VIPEGAMRLGMTNPPYILEHLEEMAKILNHPVYAFLHIPVQSASDVLMMKREYCVADF KRVVDFLK
 EKVPGITIATDIICGFPGETDQDFQETVKLVEEYKFP SLFINQFYPRPGTPAAKMEQVPAQVKKQRTKDL
 SRVFHSYSPYDHKIGERQQVLTEESFDSKFYVAHNQFYEQVLVPKNPAFMGKMVEVDIYESGKHF MKGQ
 PVSDAKVYTPSISKPLAKGEVSGLT KDFRNLGNQLSSGSHTSAASQCD SASSRMVLPMPRLHQDCALRM
 SVGLALLGLLFAFFVKVYN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6730_g05.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_017774

ORF Size: 1737 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_017774.3](#)

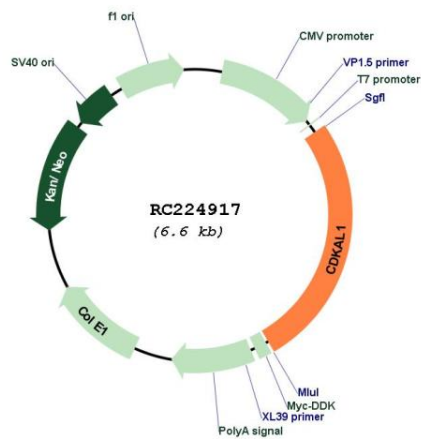
RefSeq Size: 3272 bp

RefSeq ORF: 1740 bp

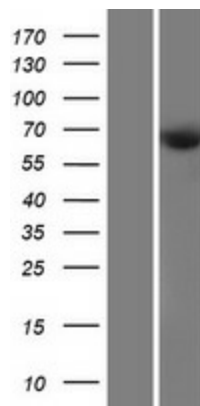
Locus ID: 54901

UniProt ID:	<u>Q5VV42</u>
Cytogenetics:	6p22.3
Domains:	TRAM, UPF0004, Elp3, Radical_SAM
Protein Families:	Transmembrane
MW:	65.1 kDa
Gene Summary:	The protein encoded by this gene is a member of the methylthiotransferase family. The function of this gene is not known. Genome-wide association studies have linked single nucleotide polymorphisms in an intron of this gene with susceptibility to type 2 diabetes. [provided by RefSeq, May 2010]

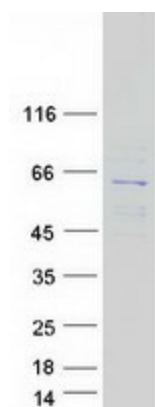
Product images:



Circular map for RC224917



Western blot validation of overexpression lysate (Cat# [LY413547]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224917 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CDKAL1 protein (Cat# [TP324917]). The protein was produced from HEK293T cells transfected with CDKAL1 cDNA clone (Cat# RC224917) using MegaTran 2.0 (Cat# [TT210002]).