

## Product datasheet for **RG224917**

### **CDKAL1 (NM\_017774) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CDKAL1 (NM_017774) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDKAL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG224917 representing NM\_017774  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCTTCTGCATCCTGTGATACACTACTGGATGACATCGAAGATATCGTGTCTCAGGAAGATTCAAAAC  
 CACAAGATAGGCATTTTGTAAAGAAAGGATGTTGTCCCGAAGGTACGAAGCGAAAATACCCAAAAATTTT  
 GCAAGAGGAAGAAAACAGTCCACCAAGTACAGCACTATTCCAGGCATACAGAAAATTTGGATACGAACA  
 TGGGGTTGTTCTCATAATAATTCAGATGGAGAATATATGGCTGGACAGCTAGCTGCTTATGGCTATAAAA  
 TTACAGAAAATGCATCCGATGCAGATTTATGGCTCCTGAACAGTTGCACTGTAAAAAACCCAGCTGAAGA  
 CCCTTTAGAAACTCAATTA AAAAGCTCAAGAGGAGAACAAGAAAATCGTACTGGCTGGATGCGTTCTCT  
 CAAGCCCAGCCTCGCCAGGACTACCTTAAGGGACTGAGTATCATTGGGGTTCAGCAGATAGATCGTGTGG  
 TAGAAGTTGTGGAGGAGACAATTAAGGTCACCTGTGAGACTGCTGGGTCAGAAAAAGGATAATGAAG  
 GCGGCTTGGGGGAGCAGATTGGATTTGCCGAAGATTAGGAAGAATCCACTGATAGAAAATCATTCCATC  
 AGTACCGGTGTCTCAATGCTTGTACCTACTGCAAACTAAACACGCCAGAGGAAAATTTGGCCAGTTATC  
 CAATTGATGAAGTGTAGATAGAGCCAAACAATCTTTTCAAGAGGGTGTGTTGTGAGATATGGTTGACCAG  
 TGAAGACACGGGGGCTTATGGCAGAGATATTGGCACCAATCTCCACACTCCTGTGAAAACCTGGTTGAA  
 GTGATTCCTGAGGGAGCAATGCTGAGGCTTGGCATGACAAATCCGCCCTATATTTTAGAGCATCTGGAGG  
 AAATGGCAAAAATCCTTAATCACCCAGAGTCTACGCTTTTCTGCACATACCAGTCCAGTCTGCCTCCGA  
 CAGCGTACTCATGAAAATGAAAAGAGAATACTGTGTGGCTGACTTCAAAAGAGTAGTGGATTTTCTGAAA  
 GAGAAAAGTTCTTGAATAACTATTGCTACAGATATTATCTGTGGTTTTCTGGAGAAAACAGATCAGGATT  
 TTCAAGAAACAGTGAACCTTGTGAAGAGTACAAATCCCAAGCCTGTTTATTAACCAATTTTACCCAAG  
 ACCAGGAACTCCTGCTGCAAAAATGGAACAAGTTCCAGCACAAGTGA AAAAGCAAAGGACAAAAGATCCTT  
 TCTCGGGTGTTCATTCTTACAGTCCATATGATCACAAGATTGGTGAAGACAACAAGTGTAGTAACAG  
 AAGAATCTTTTGATTCCAAGTTTATGTTGCACACAATCAATTCTATGAGCAGGTTTTAGTGCCAAAGAA  
 CCCTGCGTTTATGGGAAGATGGTTGAAGTGGACATCTATGAATCAGGCAAAACATTTTATGAAAGGGCAG  
 CCAGTATCTGATGCCAAAGTGTACACGCCCTCCATCAGCAAACCGCTAGCAAAGGGAGAAGTCTCAGGTT  
 TGACAAAGGACTTCAGAAATGGGCTTGGGAACCAGCTGAGTTCAGGATCCACACCTCTGCTGCATCTCA  
 GTGTGACTCAGCGAGTTCAGAATGGTGTGCCATGCCAAGGCTACATCAAGACTGTGCGCTGAGGATG  
 TCCGTGGGCTTGGCTCTGCTGGGCTTCTTTTTGCTTTTTTTGTCAAGGTCTATAAT

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>RG224917 representing NM\_017774  
 Red=Cloning site Green=Tags(s)

MPSASCDTLDDIEDIVSQEDSKPQDRHFVRKDVVPKVRRRNTQKYLQEEENSPPSDSTIPGIQKIWIRT  
 WGC SHNSDGEYMAQLAAYGYKITENASDADLWLLNSCTVKNPAEDHFRNSIKKAQEENKKIVLAGCVP  
 QAQPRQDYLKGLSIIIGVQIDRVVEVVEETIKGHSVRLGQKDNRRLLGGARLDLPKIRKNPLIEIISI  
 STGCLNACTYCKTKHARGNLASYPIDELVDRAKQSFQEGVCEIWLTS EDTGAYGRDIGTNP LLLWKLVE  
 VIPEGAMRLRGMNPPYILEHLEEMAKILNHPRVYAFLHIPVQSASDSVLMEMKREYCVADFKRNVDFLK  
 EKVPGITIATDII CGFPGETDQDFQETVKLVEEYKFP SLFINQFYPRPGTPAAKMEQVPAQVKKQRKDL  
 SRVFHSYSPYDHI GERQQVLVTEESFDSKFYVAHNQFYEQVLVPKNPAFMGKMVEVDIYESGKHF MKGQ  
 PVSDAKVYTPSISKPLAKGEVSLTKDFRNLGNQLSSGSH TSAASQCDSASSRMVLPMPRLHQDCALRM  
 SVGLALLGLLFAFFVKVYN

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

Sgfl-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.

**RefSeq:** [NM\\_017774.1](#), [NP\\_060244.1](#)

**RefSeq Size:** 2642 bp

**RefSeq ORF:** 1740 bp

**Locus ID:** 54901

**UniProt ID:** [Q5VV42](#)

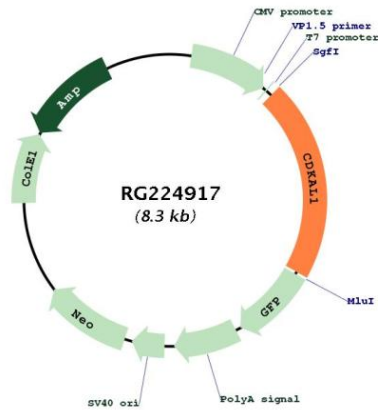
**Cytogenetics:** 6p22.3

**Domains:** TRAM, UPF0004, Elp3, Radical\_SAM

**Protein Families:** Transmembrane

**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 RG224917