

Product datasheet for **RC214147**

C5ORF33 (NADK2) (NM_001085411) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C5ORF33 (NADK2) (NM_001085411) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C5ORF33
Synonyms:	C5orf33; DECRD; MNADK; NADKD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC214147 representing NM_001085411
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTTGCTACCGAGGCTTCTTCTGCTGGGCAGCTGTTGTCGCGTGGCGGGCGGCCGGGCGCGCGCTGC
 GGGGACCGGTGCGGGAGGCCCGCCGCGCGGCCCGCTGGGCGGTGACGGTGGCGGCCGCGGCACCT
 GGGGACGGGCGAGCCGCGGAGCTGGCGGGCTGTGGCAGCCGCGGACGCGGGCTTCCGCCCTCCCGG
 GTGGTGGTGGTGGCCAAAACCACCCGTTACGAGTTCGAGCAGCAGCGGTACCGTTACGCGGAGCTCTCGG
 AGGAGGACCTGAAGCAGCTGCTTGCATTGAAAGGCTCTAGTTACAGTGGACTTCTTGAACGACATCATAT
 TCACACCAAAAATGTAGAACATATTATAGATAGTTTACGGAATGAGGGAATTGAGGTTCTGTAGTAAAG
 AGGAGAGAATATGATGAAGAGACTGTTTCGATGGGCAGATGCTGTCATAGCTGCAGGAGGTGATGGCACA
 TGCTGCTGGCAGCGAGTAAAGTCTTGGACAGACTTAAACCAGTTATAGGGGTAACACTGATCCAGAACG
 GTCTGAGGGTCATTTATGCCTGCCGTTTCGATATACACATTCCTTCCAGAAGCCTTACAGAAGTCTAT
 CGTGGTGAAGTTCAGGTGGTGTGGAGGCAGAGAATCAGGTTATACCTTGAAGGGACTGGCATAAACCTG
 TACCTGTGGACCTTACGAGCAGCAGCTAAGCTTGAATCAGCACAAATAGAGCCCTAACATTGAAAGAGC
 TCATGATGAAAGGTCTGAGGCTTCAGGACCCCACTTCTGCCAGTGAAGGACTAAATGAAGTCTTCAAT
 GGGGAGAGTCTGTATCCAGGGCTTCTACTATGAGATTCAGTTGATGATGGTCCATGGGAAAAACAGA
 AGAGTTCAGGGCTCAATTTGTGTACTGGAACAGGATCAAAGGCCTGGTCAATTAACAGGGTTGC
 AACTCAGGCTGTAGAAGTGTAAATATTGCAAAACGACAAGGAAATTTGAGTCTTCCATTGAACAGA
 GAATTGGTAGAGAAAGTAAACAAATGAATATAATGAATCACTGCTACAGTCCGGAAGAACAAAAATAC
 TTTTCAGTATTCGAGAACCAATAGCAAAATAGAGTTTTCTCAAGCAGTCGTCAGCGTTGTTTCTCTCAA
 GGTTTGTGTTCTCGTTCTCGTTGTTGGGATGCCTGTATGGTGTGGATGGAGGAACTCTTTTGAGTTAAT
 GATGGTGAATTGCTTCGATGATGATCAATAAAGAAGATGAGCTTCAACTGTGCTTCTTGAACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214147 representing NM_001085411
 Red=Cloning site Green=Tags(s)

MTCYRGFLLGSCCRVAGGRAAALRPGAGGPAARPRLGGDGGRRHLGQQPRELAGGSRADGGFRPSR
 VVVVAKTTRYEFQQRYYAELSEEDLKQLLALKGSSYSGLLERHHIHTKNVEHIIDSLRNEGIEVRLVK
 RREYDEETVRWADAVIAAGGDGTMLLAASKVLDRLKPVIGVNTDPERSEHLCPLVRYTHSFPEALQKFY
 RGEFRWLWRQIRLYLEGTGINPVPVDLHEQQLSLNQHNRLNIERAHERSEASGPQLLPVRALNEVFI
 GESLSSRASYYEISVDDGPWEKQKSSGLNLCGTGSKAWSFNINRVATQAVEDVLNIAKRQGNLSLPLNR
 ELVEKVTNEYNESLLYSPEEPKILFSIREPIANRVFSSSRQRCFSSKVCVRSRCDACMVVDGGTSFEFN
 DGAIASMMINKEDELRTVLLLEQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8060_c02.zip

Restriction Sites:

Sgfl-Mlul

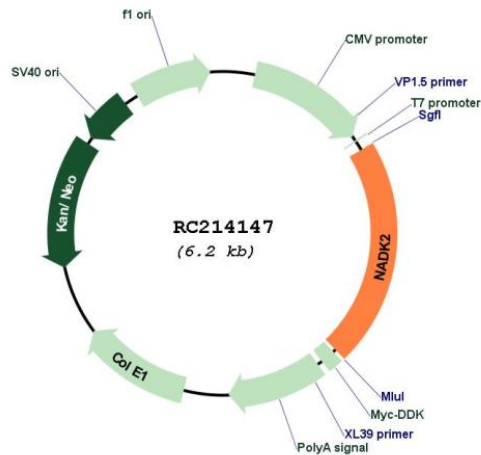
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001085411

ORF Size: 1326 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_001085411.3](#)

RefSeq Size: 3898 bp

RefSeq ORF: 1329 bp

Locus ID: 133686

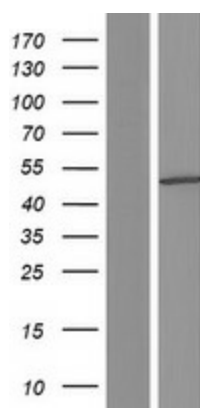
UniProt ID: [Q4G0N4](#)

Cytogenetics: 5p13.2

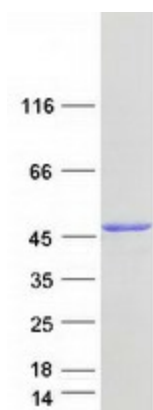
MW: 49.3 kDa

Gene Summary: This gene encodes a mitochondrial kinase that catalyzes the phosphorylation of NAD to yield NADP. Mutations in this gene result in 2,4-dienoyl-CoA reductase deficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]

Product images:



Western blot validation of overexpression lysate (Cat# [LY421290]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214147 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NADK2 protein (Cat# [TP314147]). The protein was produced from HEK293T cells transfected with NADK2 cDNA clone (Cat# RC214147) using MegaTran 2.0 (Cat# [TT210002]).