

Product datasheet for **RC202812**

RFK (NM_018339) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RFK (NM_018339) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RFK
Synonyms: RIFK
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202812 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCGAGCGGACTGCATTATGAGGCACCTGCCTTACTTCTGCCGGGTCAAGTGGTGCGGGCTTCG
GCCCGGCTCCAAGCAGCTGGGCATCCCCACAGCTAATTTTCTGAGCAAGTGGTAGATAATCTCCAGC
TGATATATCCACTGGTATTTACTATGGTTGGCCAGTGTGGAAGTGGAGATGCCATAAGATGGTGGT
AGCATAGGATGGAACCCATATTACAAGAATACGAAGAAGTCTATGAAACACATATCATGCATACCTTCA
AAGAGGACTTCTATGGGAAATCCTCAATGTCGCCATTGTTGGCTACCTGAGACCAGAAAAGAATTGA
TTCTTTAGAGTCACTTATTTAGCAATTCAGGTGATATTGAAGAAGCTAAGAAACGACTAGAGTTACCA
GAACATTTGAAAATCAAAGAAGCAATTTCTTCCAGTTTCTAAAAGCAAATAATGAATGGCCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202812 protein sequence
Red=Cloning site Green=Tags(s)

MPRADCIMRHLPYFCRGQVVRGFGGRGSKQLGIPTANFPEQVVDNLPADISTGIYYGWASVSGSDVHKMNV
SIGWNPYYKNTKSMETHIMHTFKEDFYGEILNVAIVGYLRPEKNFDSLESLSISAIQGDIEEAKRLELP
EHLKIKEDNFFQVSKSKIMNGH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6415_f03.zip



[View online »](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018339

ORF Size: 486 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_018339.2](#)

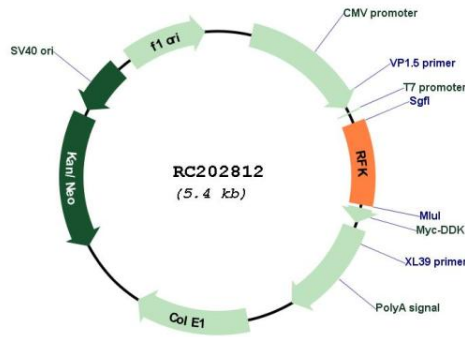
RefSeq Size: 2707 bp

RefSeq ORF: 468 bp

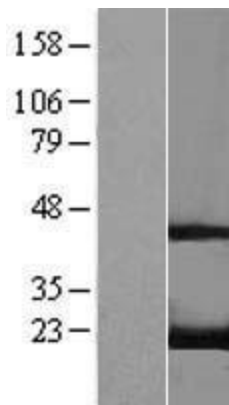
Locus ID: 55312

UniProt ID: [Q969G6](#)
Cytogenetics: 9q21.13
Domains: FAD_Synth
Protein Families: Druggable Genome
Protein Pathways: Metabolic pathways, Riboflavin metabolism
MW: 18.4 kDa
Gene Summary: Riboflavin kinase (RFK; EC 2.7.1.26) is an essential enzyme that catalyzes the phosphorylation of riboflavin (vitamin B2) to form flavin mononucleotide (FMN), an obligatory step in vitamin B2 utilization and flavin cofactor synthesis (Karthikeyan et al., 2003 [PubMed 12623014]). [supplied by OMIM, Nov 2009]

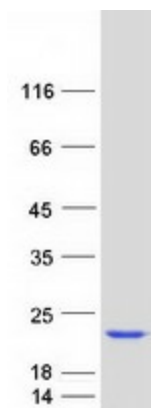
Product images:



Circular map for RC202812



Western blot validation of overexpression lysate (Cat# [LY413132]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202812 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RFK protein (Cat# [TP302812]). The protein was produced from HEK293T cells transfected with RFK cDNA clone (Cat# RC202812) using MegaTran 2.0 (Cat# [TT210002]).