

Product datasheet for RC214831

VKORC1 (NM_206824) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: VKORC1 (NM_206824) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: VKORC1
Synonyms: EDTP308; MST134; MST576; VKCFD2; VKOR
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC214831 representing NM_206824
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGGCAGCACCTGGGGAGCCCTGGCTGGGTGCGGCTCGCTCTTTGCCTGACGGGCTTAGTGCTCTCGC
 TCTACGCGCTGCACGTGAAGGCGGCGCGCGCCGGGACCGGGATTACCGCGCGCTCTGCGACGTGGGCAC
 CGCCATCAGCTGTTGCGCGCTTCTCTCCAGGTTGCCTGCGGACACGCTGGGCCTCTGCTCTGATGCT
 GCTGAGCTCCCTGGTGTCTCTCGCTGGTCTGTCTACCTGGCCTGGATCCTGTTCTCTGTGCTCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214831 representing NM_206824
 Red=Cloning site Green=Tags(s)
 MGSTWGSPGWRLALCLTGLVLSLYALHVKAARARDRDYRALCDVGTAISSSRVFSRLPADTLGLCPDA
 AELPGVSRWFCLPGLDPVLRAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3220_h07.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:



ACCN: NM_206824

ORF Size: 276 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

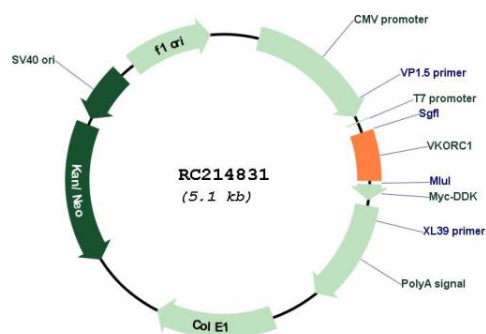
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

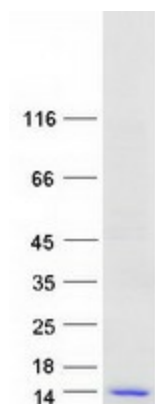
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 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:	<u>NM_206824.2</u>
RefSeq Size:	907 bp
RefSeq ORF:	279 bp
Locus ID:	79001
UniProt ID:	<u>Q9BQB6</u>
Cytogenetics:	16p11.2
Protein Families:	Transmembrane
MW:	9.7 kDa
Gene Summary:	<p>This gene encodes the catalytic subunit of the vitamin K epoxide reductase complex, which is responsible for the reduction of inactive vitamin K 2,3-epoxide to active vitamin K in the endoplasmic reticulum membrane. Vitamin K is a required co-factor for carboxylation of glutamic acid residues by vitamin K-dependent gamma-carboxylase in blood-clotting enzymes. Allelic variation in this gene is associated with vitamin k-dependent clotting factors combined deficiency of 2, and increased resistance or sensitivity to warfarin, an inhibitor of vitamin K epoxide reductase. Pseudogenes of this gene are located on chromosomes 1 and X. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015]</p>

Product images:



Circular map for RC214831



Coomassie blue staining of purified VKORC1 protein (Cat# [TP314831]). The protein was produced from HEK293T cells transfected with VKORC1 cDNA clone (Cat# RC214831) using MegaTran 2.0 (Cat# [TT210002]).