

## Product datasheet for **RC202639**

### **VKORC1 (NM\_024006) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** VKORC1 (NM\_024006) 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:** >RC202639 ORF sequence  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGGCAGCACCTGGGGAGCCCTGGCTGGGTGCGGCTCGCTCTTTGCCTGACGGGCTTAGTGCTCTCGC  
TCTACGCGCTGCACGTGAAGGCGCGCGCCCGGACCGGATTACCGCGCTCTGCGACGTGGGCAC  
CGCCATCAGCTGTTTCGCGCTCTTCTCCTCCAGGTGGGGCAGGGGTTTCGGGCTGGTGGAGCATGTGCTG  
GGACAGGACAGCATCCTCAATCAATCCAACAGCATATTCGGTTGCATCTTCTACACACTACAGCTATTGT  
TAGGTTGCCTGCGGACAGCTGGGCCTCTGTCTGATGCTGCTGAGCTCCCTGGTGTCTCTCGCTGGTTC  
TGTCTACCTGGCCTGGATCCTGTTCTTCGTGCTCTATGATTTCTGCATTGTTGTATCACCACCTATGCT  
ATCAACGTGAGCCTGATGTGGCTCAGTTTCCGGAAGTCCAAGAACCCAGGGCAAGGCTAAGAGGCAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC202639 protein sequence  
**Red=Cloning site Green=Tags(s)**

MGSTWGSPPGWRLALCLTGLVLSLYALHVKAARARDRDYRALCDVGTAIISCSRVFSSRWGRGFLVEHVL  
GQDSILNQSNSIFGCI FYTLQLLLGLCLRTRWASVLMLLSSLVSLAGSVYLAWILFFVLYDFCIVCITTYA  
INVSLMWLSFRKVPQPKAKRH

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6144\\_a12.zip](https://cdn.origene.com/chromatograms/mk6144_a12.zip)



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_024006

**ORF Size:** 489 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\\_024006.6](#)

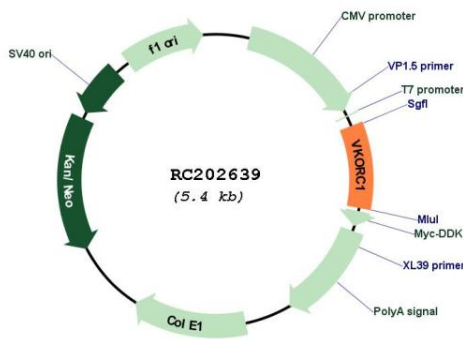
**RefSeq Size:** 1042 bp

**RefSeq ORF:** 492 bp

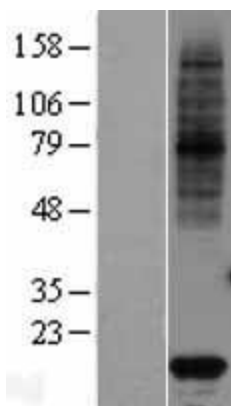
**Locus ID:** 79001  
**UniProt ID:** [Q9BQB6](#)  
**Cytogenetics:** 16p11.2  
**Protein Families:** Transmembrane  
**MW:** 18.2 kDa  
**Gene Summary:**

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]

**Product images:**



Circular map for RC202639



Western blot validation of overexpression lysate (Cat# [LY402968]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202639 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).