

## Product datasheet for **TL713842**

### Vkorc1 Rat shRNA Plasmid (Locus ID 309004)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Vkorc1 Rat shRNA Plasmid (Locus ID 309004)
Locus ID:	309004
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Vkorc1 - Rat, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 309004). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_203335</a> , <a href="#">NM_203335.1</a> , <a href="#">NM_203335.2</a> , <a href="#">BC166413</a>
UniProt ID:	<a href="#">Q6TEK4</a>
Summary:	Vitamin K is essential for blood clotting but must be enzymatically activated. This enzymatically activated form of vitamin K is a reduced form required for the carboxylation of glutamic acid residues in some blood-clotting proteins. The product of this gene encodes the enzyme that is responsible for reducing vitamin K 2,3-epoxide to the enzymatically activated form. Fatal bleeding can be caused by vitamin K deficiency and by the vitamin K antagonist warfarin, and it is the product of this gene that is sensitive to warfarin. In humans, mutations in this gene can be associated with deficiencies in vitamin-K-dependent clotting factors and, in humans and rats, with warfarin resistance. [provided by RefSeq, Jul 2008]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .

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**Performance  
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).