

## **Product datasheet for SR414803**

## OriGene Technologies, Inc.

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## Vrk2 Mouse siRNA Oligo Duplex (Locus ID 69922)

**Product data:** 

**Product Type:** siRNA Oligo Duplexes

Purity: HPLC purified

**Quality Control:** Tested by ESI-MS

Sequences: Available with shipment

**Stability:** One year from date of shipment when stored at -20°C.

# of transfections: Approximately 330 transfections/2nmol in 24-well plate under optimized conditions (final

conc. 10 nM).

**Note:** Single siRNA duplex (10nmol) can be ordered.

RefSeq: <u>NM 001252447</u>, <u>NM 027260</u>

UniProt ID: Q8BN21

**Synonyms:** 2810003O05Rik; Al447698

Components: Vrk2 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 69922)

Included - SR30004, Trilencer-27 Universal Scrambled Negative Control siRNA Duplex - 2 nmol

Included - SR30005, RNAse free siRNA Duplex Resuspension Buffer - 2 ml

**Summary:** Serine/threonine kinase that regulates several signal transduction pathways. Isoform 1

modulates the stress response to hypoxia and cytokines, such as interleukin-1 beta (IL1B) and

this is dependent on its interaction with MAPK8IP1, which assembles mitogen-activated

protein kinase (MAPK) complexes. Inhibition of signal transmission mediated by the assembly

of MAPK8IP1-MAPK complexes reduces JNK phosphorylation and JUN-dependent

transcription. Phosphorylates histone H3. Phosphorylates 'Thr-18' of p53/TP53, and thereby increases its stability and activity. Phosphorylates BANF1 and disrupts its ability to bind DNA

and reduces its binding to LEM domain-containing proteins. Downregulates the

transactivation of transcription induced by ERBB2, HRAS, BRAF, and MEK1. Blocks the

phosphorylation of ERK in response to ERBB2 and HRAS. May also phosphorylate MAPK8IP1. Can also phosphorylate the following substrates that are commonly used to establish in vitro

kinase activity: casein, MBP and histone H2B, but it is not sure that this is physiologically

relevant (By similarity).[UniProtKB/Swiss-Prot Function]





## Performance Guaranteed:

OriGene guarantees that at least two of the three Dicer-Substrate duplexes in the kit will provide at least 70% or more knockdown of the target mRNA when used at 10 nM concentration by quantitative RT-PCR when the TYE-563 fluorescent transfection control duplex (cat# SR30002) indicates that >90% of the cells have been transfected and the HPRT positive control (cat# SR30003) provides 90% knockdown efficiency.

For non-conforming siRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the siRNA kit. To arrange for a free replacement with newly designed duplexes, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled siRNA control (quantitative RT-PCR data required).