

## Product datasheet for **MC227777**

### **Vrk2 (NM\_001252447) Mouse Untagged Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                      |
| Product Name:             | Vrk2 (NM_001252447) Mouse Untagged Clone |
| Tag:                      | Tag Free                                 |
| Symbol:                   | Vrk2                                     |
| Synonyms:                 | 2810003O05Rik; AI447698                  |
| Mammalian Cell Selection: | Neomycin                                 |
| Vector:                   | pCMV6-Entry (PS100001)                   |
| E. coli Selection:        | Kanamycin (25 ug/mL)                     |



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**Fully Sequenced ORF:** >MC227777 representing NM\_001252447  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCACCAAGAAGAAAAGAAAATATAAGCTTCCGGTCCACTCCAGAAGCAAATTCTGGATGATA  
 TGGAAGGAAACCGGTGGGCACTGGCAAGATGATCGGCTCTGGAGGGTTGGACTGATATACTTAGCTTT  
 CCCCACAATAAACCAAAACAAAGATGCAAGACATGTCATAAAGCTGGAGTATCAAGAAAAATGGCCATTA  
 TTTTCAGAGCTTAAATTTTATCAGAGAGCTGCAAAAAGAGAATGTATCCAAAAGTGGATACAACAGAGGA  
 AACTTGATTATTTAGGAATTCCTGTATTTTATGGATTTGGTCTGACTGATTTCAAAGGAAGAAGTTACAG  
 ATTCATGGTAATGGAAAGACTTGAATAGATTTACAGAACTCCTGGACCAGAATGGTGGTTTTAAAAA  
 TTAACCGTCTACAACCTGGCATCAGGATGCTGGATGACTGGAATATATACATGAAAATGAGTATGTTT  
 ATGGTGATATAAAGCCGCAATCTACTGTTGGATTTTACAAATCCAGACCGGGTTTATCTTGACAGACTA  
 TGGACTTTCCTACAGATATTGTCCAATGGGAACCACAAACAGTATCAGGAAGATCCAGAAAGGGCCAT  
 AATGGGACAATAGAGTTTACAAGTTGGATGCACACAAAGGAGTGGCCCCGTCCAGGAGGAGTATGTTG  
 AAATCCTTGTTACTGCATGCTGCACTGGCTCTTCGGGAAGCTTCTTGGGAAGCAAAGCTGGACGACCC  
 TGTGGCTGTCCAGACTGCTAAAACCAACCTGCTGGATGAACTCCCAGAGTCGGTGCTTAAGTGGGCTCCT  
 TCTGGAAGCAGTTGCAGTGAACCTGTCAAGTACTTGATGTATGTTTATAATTTAGCTTATGATGACAAGC  
 CAGACTATCAGAAGCTCAAGAAAATTTGAATCCAGATGGAGTACCTTTAGGGCCACTGGAATTTCCAC  
 TAAAGTACAGAGTGTCCATGTGCGGACTCCAGCCCAACAAAAAGAAAACCAAGGACAAGGAAAATACAT  
 GAATATTCTGATATTTTTCAGTGAGATGCAGAGTCTTCAACAAACACCCAGCTATATGAGTTTCCAAGTT  
 CATATTGCAAGCCCTATCTGGACTGCACTAGAAGAGATCCCATCAGGAAGCCAAGATCCCTGCCTCGGTA  
 CAGACACACGCCACGGGTAATCTGGGAGTCACAGACTTGGAAAAGTTCTCCAAGGTTTTGGCTGCAATT  
 TTTTCAGTTGACTCTGAGTGAAGAGACAAAGGCAGATGTGTATTACTATGGGATCACTATATTCTGTCTGC  
 TGATATTTGATTTCTTCTGTTGATTTTCTCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001252447

**Insert Size:** 1365 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

**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).

|                               |  |
|-------------------------------|--|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>  |
| <b>RefSeq:</b>                | <u><a href="#">NM_001252447.1</a></u> , <u><a href="#">NP_001239376.1</a></u>  |
| <b>RefSeq Size:</b>           | 1745 bp  |
| <b>RefSeq ORF:</b>            | 1365 bp  |
| <b>Locus ID:</b>              | 69922  |
| <b>UniProt ID:</b>            | <u><a href="#">Q8BN21</a></u>  |
| <b>Cytogenetics:</b>          | 11 A3.3  |
| <b>Gene Summary:</b>          | <p>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]</p> <p>Transcript Variant: This variant (2) lacks an in-frame exon in the 3' coding region, compared to variant 1. The resulting isoform (2) lacks an internal segment in the C-terminal region, compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p> |