

## Product datasheet for **MG207249**

### Vrk2 (BC013520) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Vrk2 (BC013520) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Vrk2
Synonyms:	2810003O05Rik; AI447698
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207249 representing BC013520  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCACCAAGAAGAAAAGAAAATACAAGCTTCCGGTCCACTCCAGAAGCAAATCTGGATGATA  
 TGGAAGGAAACCGGTGGGCACTGGCAAGATGATCGGCTCTGGAGGGTTGGACTGATATACTTAGCTTT  
 CCCACAATAAAACCAAAACAAAGATGCAAGACATGTCATAAAGCTGGAGTATCAAGAAAATGGCCATTA  
 TTTTCAGAGCTTAAATTTTATCAGAGAGCTGCAAAAAGAGAATGTATCCAAAAGTGGATACAACAGAGGA  
 AACTTGATTATTTAGGAATTCCTGTATTTTATGGATTTGGTCTGACTGATTTCAAAGGAAGAAGTTACAG  
 ATTCATGGTAATGGAAAGACTTGAATAGATTTACAGAACTCCTGGACCAGAATGGTGGTTTTAAAAA  
 TTAACCGTCTACAACCTGGCATCAGGATGCTGGATGACTGGAATATATACATGAAAATGAGTATGTT  
 ATGGTGATATAAAAGCCGCAATCTACTGTTGGATTTTACAAATCCAGACCGGGTTTATCTTGCAGACTA  
 TGGACTTCTACAGATATTGTCCAATGGGAACCACAAACAGTATCAGGAAGATCCAGAAAGGGCCAT  
 AATGGGACAATAGAGTTTACAAGTTGGATGCACACAAAGGAGTGGCCCCATCCAGGAGGAGTATGTTG  
 AAATCCTTGTTACTGCATGCTGCACTGGCTCTTCGGGAAGCTTCTTGGGAAGCAAAGCTGGACGACCC  
 TGTGGCTGTCCAGACTGCTAAAACCAACCTGCTGGATGAACTCCCAGAGTCGGTGCTTAAGTGGGCTCT  
 TCTGGAAGCAGTTGCAGTGAACCTGTCAAGTACTTGATGTATGTTTATAATTTAGCTTATGATGACAAGC  
 CAGACTATCAGAAGCTCAAGAAAATTTGAATCCAGATGGAGTACTTTTAGGGCCACTGGAATTTCCAC  
 TAAAGTACAGAGTGTCCGTGTCCGACTCCAGCCCAACAAAAGAAAAGTCAAGGACAAGGAAAATACAT  
 GAATATTCTGATATTTTCAAGTGCAGAGTCTTCAACAAACCCAGCTATATGAGTTTCCAAGGTT  
 CATATTGCAAGCCCTATCTGGACTGCAGTACAAGAGATCCCATCAGGAAGCCAAGATCCCTGCCTCGGTA  
 CAGACACAGCCACGGGTAATCTGGGAGTCACAGACTTGGAAAGTTCTCCAAGTTTTGGCCTGCAATT  
 TTTCAAGTACTCTGAGTGAAGAGACAAAGGCAGATGTGTATTACTATGGGATCACTATATTCTGTCTGC  
 TGATATTTGATTTCTTCTTGTATTTTCTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG207249 representing BC013520  
 Red=Cloning site Green=Tags(s)

MAPRRKEKYKLPVPLPEGKILDDMEGNRWALGKMI GSGGFLIYLAFPTNPNKDARHVIKLEYQENGL  
 FSELKFYQRAAKRECIQKWIQRKLDYL GIPVFYGFGLTDFKGRSYRFMVMERLGIDLQKLLDQNGGFKK  
 LTVLQLGIRMLDVLEIYIHENEYVHGD IKAANLLDFTNPDRVYLADYGLSYRYCPNGNHKQYQEDPRKGH  
 NGTIEFTSLDAHKGVAPSRSDVEILGYCMLH WLFGKLPWEAKLDDPVAVQTAKTNLLDELPE SVLKWAP  
 SGSSCSELVKYLMYVHNLAYDDKPDYQK LKILNPDGVLLGPLEFSTKVQSVRVRTPAQQKENSRTKIH  
 EYSDIFSEMQLQQTPSYMSFQGSYCKPYLD CTRRDPPIRKPRSLPRYRHTPTGNLGVTDLESSPRFWPAI  
 FQLTLSEETKADVYYYYGITIFCLLIFVFLALYFL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



<b>Components:</b>	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="#">BC013520</a></u> , <u><a href="#">AAH13520</a></u>
<b>RefSeq Size:</b>	1473 bp
<b>RefSeq ORF:</b>	1364 bp
<b>Locus ID:</b>	69922
<b>Cytogenetics:</b>	11 A3.3
<b>Gene Summary:</b>	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]