

## Product datasheet for **RG225827**

### **VRK2 (NM\_001130482) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	VRK2 (NM_001130482) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	VRK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225827 representing NM\_001130482  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAAGCAATCAGTGGTACTGGCAAGAAGATTGGCTCTGGAGGATTTGGATTGATATATTTAGCTT  
 TCCCCACAAATAAACAGAGAAAGATGCAAGACATGTAGTAAAAGTGAATATCAAGAAAATGGCCCGTT  
 ATTTTCAGAACTTAAATTTTATCAGAGAGTTGCAAAAAAAGACTGTATCAAAAAGTGGATAGAACGCAAA  
 CAACTTGATTATTTAGGAATTCCTCTGTTTTATGGATCTGGTCTGACTGAATTCAGGGAAGAAGTTACA  
 GATTTATGGTAATGAAAAGACTAGGAATAGATTTACAGAAGATCTCAGGCCAGAATGGTACCTTTAAAAA  
 GTCACACTGTCCTGCAATTAGGTATCCGAATGTTGGATGTACTGGAATATATACATGAAAAATGAATATGTT  
 CATGGTGATATAAAAGCAGCAAATCTACTTTTGGGTTACAAAAATCCAGACCAGGTTTATCTTGCAGATT  
 ATGGACTTTCCTACAGATATTGTCCAATGGGAACCAAAACAGTATCAGGAAAACTAGAAAAGGCCA  
 TAATGGGACAATAGAGTTTACCAGCTTGGATGCCACAAGGGAGTAGCCTTGCCAGACGAAGTGACGTT  
 GAGATCCTCGGCTACTGCATGCTGCGGTGGTGTGTGGGAACTCCCTGGGAACAGAACCTGAAGGACC  
 CTGTGGCTGTGCAGACTGCTAAAACAAATCTGTTGGACGAGCTCCCCCAGTCAGTGCTTAAATGGGTCC  
 TTCTGGAAGCAGTTGCTGTGAAATAGCCCAATTTTGGTATGTGCTCATAGTTTAGCATATGATGAAAAG  
 CCAAATCAAGCCCTCAAGAAAATTTTGAACCTCATGGAATACCTTTAGGACCCTGGACTTTTCCA  
 CAAAAGGACAGAGTATAAATGTCCTACTCCAACAGTCAAAAAGTTGATTCACAAAAGGCTGCAACAAA  
 GCAAGTCAACAAGGCACACAATAGGTTAATCGAAAAAAGTCCACAGTGAGAGAAGCGCTGAGTCTGT  
 GCAACATGGAAAGTGCAGAAAGAGGAGAACTGATTGGATTGATGAACAATGAAGCAGCTCAGGAAAAGCA  
 CAAGGAGAAGACAGAAATATCAAGAGTCTCAAGAACCTTTGAATGAAGTAAACAGTTTCCACAAAAAT  
 CAGCTATACACAATCCCAAATCATTTTATGAGCCTCATCAAGATTTTACCAGTCCAGATATATTTCAAG  
 AAGTCAAGATCTCCATCTTGGTATAAATACACTTCCACAGTCAGCACGGGGATCAGAGACTTAGAAAGTT  
 CAACTGGACTTTGGCCTACAATTTCCAGTTTACTCTTAGTGAAGAGACAAACGCAGATGTTTATTATTA  
 TCGCATCATACCTGCTCTTTTATGTTAGTATTTCTGCTTATTTTTTCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG225827 representing NM\_001130482  
 Red=Cloning site Green=Tags(s)

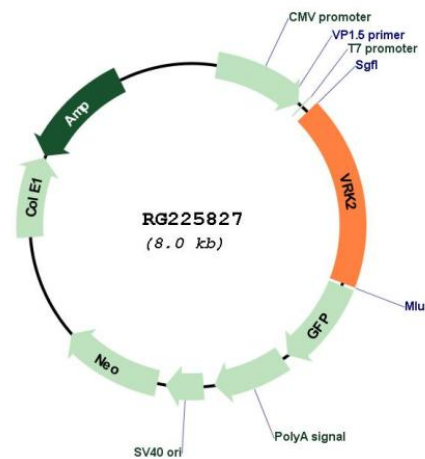
MEGNQWVLGKKIGSGGFLIYLAFPTNKPEKDARHVVKVEYQENGPLFSELKQYQVAKKDCIKKWI  
 ERKQLDYLGIPLFYGSGLTFKGRSYRFMVMERLGIDLQKISGQNGTFKKSTVLQLGIRMLDVLEYIHENEYV  
 HGDIIKANLLGYKNPDQVYLADYGLSYRYCPNGNHKQYQENPRKGHNGTIEFTSLDAHKGVALSRRSDV  
 EILGYCMLRWLCGKLPWEQNLKDPVAVQTAKTNLLDELQSVLKWAPSGSSCCEIAQFLVCAHSLAYDEK  
 PNYQALKKILNPHGIPLGPLDFSTKGQSINVHTPNSQKVDQKAAATKQVNAHNRLIEKKVHSERSAES  
 C ATWKVQKEEKLIGLMNNEAAQESTRRRQKYQESQEPLNEVNSFPQKISYTOFPNSFYEPHQDFTSPDIFK  
 KSRSPSWYKYTSTVSTGITDLESSTGLWPTISQFTLSEETNADVYYRIIIPVLLMLVFLALFFL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001130482

**ORF Size:** 1455 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.

**RefSeq:** [NM\\_001130482.2](#), [NP\\_001123954.1](#)

**RefSeq Size:** 1885 bp

**RefSeq ORF:** 1458 bp

**Locus ID:** 7444

**UniProt ID:** [Q86Y07](#)

**Cytogenetics:** 2p16.1

**Protein Families:** Druggable Genome, Protein Kinase, Transmembrane

**Gene Summary:** This gene encodes a member of the vaccinia-related kinase (VRK) family of serine/threonine protein kinases. The encoded protein acts as an effector of signaling pathways that regulate apoptosis and tumor cell growth. Variants in this gene have been associated with schizophrenia. Alternative splicing results in multiple transcript variants that differ in their subcellular localization and biological activity. [provided by RefSeq, Jan 2014]