

Product datasheet for **RG225875**

VRK2 (NM_001130481) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VRK2 (NM_001130481) 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:

>RG225875 representing NM_001130481
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCACCAAAAAGAAATGAAAAATACAACTTCCTATTCATTCCAGAAGCAAGTTCTGGATGATA
 TGGAAGGCAATCAGTGGGTACTGGCAAGAAGATTGGCTCTGGAGATTGGATTGATATTTAGCTTT
 CCCACAAATAAACAGAGAAAGATGCAAGACATGTAGTAAAAGTGAATATCAAGAAAAATGGCCGTTA
 TTTTCAGAACTTAAATTTATCAGAGAGTTGCAAAAAAGACTGTATCAAAAAGTGGATAGAACGCAAAAC
 AACTTGATTATTTAGGAATTCCTCTGTTTTATGGATCTGGTCTGACTGAATTCAGGGAAGAAGTTACAG
 ATTTATGGTAATGGAAAGACTAGGAATAGATTTACAGAAGATCTCAGGCCAGAATGGTACCTTTAAAAAG
 TCAACTGTCTGCAATTAGGTATCCGAATGTTGGATGTACTGGAATATATACATGAAAATGAATATGTTCC
 ATGGTGATATAAAGCAGCAAACTACTTTTGGGTTACAAAAATCCAGACCAGGTTTATCTTGCAGATTA
 TGGACTTCTACAGATATTGTCCAATGGGAACCACAAACAGTATCAGGAAAATCTAGAAAAGGCCAT
 AATGGGACAATAGAGTTTACCAGCTTGGATGCCACAAGGGAGTAGCCTTGTCCAGACGAAGTGACGTTG
 AGATCCTCGGCTACTGCATGCTGCGGTGTTGTGTGGGAACTTCCCTGGGAACAGAACCTGAAGGACCC
 TGTGGCTGTGCAGACTGCTAAAACAAATCTGTTGGACGAGCTCCCCAGTCAGTGCTTAAATGGGCTCCT
 TCTGGAAGCAGTTGCTGTGAAATAGCCCAATTTTGGTATGTGCTCATAGTTTAGCATATGATGAAAAGC
 CAACTATCAAGCCCTCAAGAAAATTTGAACCCTCATGGAATACCTTTAGGACCACTGGACTTTTCCAC
 AAAAGGACAGAGTATAAATGTCCATACTCCAAACAGTCAAAAAGTTGATTCACAAAAGGCTGCAACAAAG
 CAAGTCAACAAGGCACACAATAGGTTAATCGAAAAAAAAGTCCACAGTGAGAGAAGCGCTGAGTCTGTG
 CAACATGGAAAGTGCAGAAAGAGGAGAACTGATTGGATTGATGAACAATGAAGCAGCTCAGGAAAACAC
 AAGGAGAAGACAGAAAATATCAAGAGTCTCAAGAACCCTTGAATGAAGTAAACAGTTTCCCACAAAAATC
 AGCTATACACAATTTCCAAACTCATTTTATGAGCCTCATCAAGATTTTACCAGTCCAGATATATTTCAAGA
 AGTCAAGATCTCCATCTTGGTATAAATACACTTCCACAGTCAGCACGGGGATCACAGACTTAGAAAAGTTC
 AACTGGACTTTGGCCTACAATTTCCAGTTTACTCTTAGTGAAGAGACAAACGCAGATGTTTATTATTAT
 CGCATCATACCTGCTCTTTGATGTTAGTATTTCTTGCTTTATTTTTCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG225875 representing NM_001130481
 Red=Cloning site Green=Tags(s)

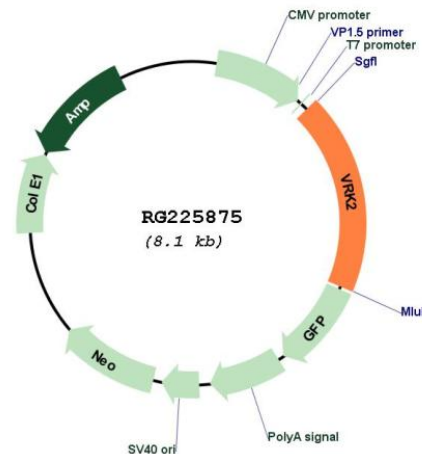
MPPKRNEYKLPVPEKLVDDMEGNQWVLGKIGSGGFGLIYLAFTNKPEKDARHVVKVEYQENGL
 FSELKFYQRVAKKDCIKKIWERKQLDYLGIPLFYGSLTEFKGRSYRFMVMERLIDLQISGQNGTFKK
 STVLQLGIRMLDVLEIYHENEYVHGDIIKANLLLGYKNPDQVYLADYGLSYRYCPNGNHKQYQENPRKGH
 NGTIEFTSLDAHKGVALSRRSDVEILGYCMLRWLWCGKLPWEQNLKDPVAVQTAKTNLLDELQSVLKWAP
 SGSSCCEIAQFLVCAHSLAYDEKPNYQALKKILNPHGIPLGPLDFSTKGQSINVHTPNSQKVDSDQAATK
 QVNAHNRLIEKKVHSERSAESCATWKVQKEEKLIGLMNNEAAQESTRRRQKYQESQEPLNEVNSFPQKI
 SYTQFPNSFYEPHQDFTSPDIFKKSRSWYKYTSTVSTGITDLESSTGLWPTISQFTLSEETNADVYYY
 RIIIPVLLMLVFLALFFL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001130481

ORF Size: 1524 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_001130481.2](#), [NP_001123953.1](#)

RefSeq Size: 1899 bp

RefSeq ORF: 1527 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]