

## Product datasheet for **RG215509**

### **RYK (NM\_002958) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RYK (NM_002958) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RYK
Synonyms:	D3S3195; JTK5; JTK5A; RYK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG215509 representing NM\_002958  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCGTGGGGCGGCGCGCTGGGGCGGCCGGGCGGAGTTGCCTCCGGGGGCCCGCGCCTGAGGGCCC  
 CGCCGCCGCCGCTGCTGCTTCTGCTTGCCTGCTGCGCTGTTGCCGCTGCTGCCGCGCCTGGCGCTGCCGCCGC  
 CCCC GCCCGCGGCCCGGAGCTGCAGTCGGCTTCCGCGGGGCCACGCTGAGTCTCTACCTGAGCGAG  
 GACGAGGTGCGCCGGCTGATCGGTCTTGTATGCAGAACTTATTATGTGAGAAATGACCTTATTAGTCACT  
 ACGCTCTATCCTTAGTCTGTTAGTACCCAGTGAGACAAATTTCTGCACCTCACCTGGCATGCGAAGTC  
 CAAGGTTGAATATAAGCTGGGATTCCAAGTGGACAATGTTTTGGCAATGGATATGCCCCAGGTCAACATT  
 TCTGTTACAGGGGAAGTCCACGCACCTTATCAGTGTTCGGGTAGAGCTTCTGTACTGGCAAAGTAG  
 ATTCTGAAGTTATGATACTAATGCAGCTCAACTTGACAGTAAATCTTCAAAAAATTTACCGTCTTAAA  
 TTTTAAACGAAGGAAAATGTGCTACAAAAACTTGAAGAAGTAAAACTCAGCCTTGACAAAAACT  
 AGCAGAATATTTATGATCCTGTACATGCAGCTCCAACCACTTCTACGCTGTGTTTTATATTAGTGTAG  
 GGGTTTGTGTGCAATAATTTCTCGTAGCAATAATATTAGCTGTTTTGCACCTTCATAGTATGAAAAG  
 GATTGAACTGGATGACAGCATTAGTGCCAGCAGTAGTTCCCAAGGGCTGTCTCAGCCATCCACCCAGACG  
 ACTCAGTATCTGAGAGCAGACACGCCCAACAATGCAACTCCTATCACCAGTTATCCTACCTTGCGGATAG  
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 TCATGTGTGATAGAAGAAGGAGAAAAAGCCCATGGTGATATTGCCTTACATGAATTGGGGGAATCTTAAA  
 TTGTTTTTACGACAGTGAAGTTAGTAGAGCCAATAATCCACAGCAATTTCTCAGCAAGACCTGGTAC  
 ACATGGCTATTAGATTGCTGTGGAATGAGCTACCTGGCCAGAAGGGAAGTCATCCACAAGACCTGGC  
 TGCCAGGAAGTGTGCTTGTGACACACTTCAAGTTAAGATCACAGACAATGCCCTCTCCAGAGACTTG  
 TTCCCATGGACTATCACTGTCTGGGGACAATGAAAACAGGCCAGTTCGTTGGATGGCTCTTGAAGTC  
 TGGTTAATAACGAGTTCTCTAGCGCTAGTGTGTGGCCCTTTGGAGTGACGCTGTGGAACTCATGAC  
 TCTGGCCAGACTCCCTACGTGGACATTGACCCTTCGAGATGGCCGCATACCTGAAAGATGTTACCGA  
 ATAGCCAGCCAATCACTGTCCTGATGAATTATTTGCTGTGATGGCCTGTTGCTGGCCCTAGATCCAG  
 AGGAGAGGCCCAAGTTTACGAGCTGGTACAGTGCCCTAACAGAGTTTCATGCAGCCCTGGGGCCTACGT  
 C

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG215509 representing NM\_002958  
 Red=Cloning site Green=Tags(s)

MRGAARLGRPGRSCLPGARGLRAPPPPLLLLLLPLLPAPGAAAAPAPRPPPELQSASAGPSVSLYLSE  
 DEVRRLLGLDAELYYVRNDLISHYALSFLLVPSETNFLHFTWHAKSKVEYKLGQVDNVLAMDMPQVNI  
 SVQGEVPRTLVFRVLSCTGKVDSEVMILMQLNLTVNSSKNFTVLNFKRRKMCYKLEEVKTSALDKNT  
 SRTIYDPVHAAPTSTRVFIYISVGVCCAVIFLVAIILAVLHLHSMKRIELDDISASSSSQGLSQPSTQT  
 TQYLRADTPNNAATPITSYPTLRIEKNDLRSVTLLEAKGKVKDIAISRERITLKDVLQEGTFGRIFHGILI  
 DEKDPNKEKQAFVKTVKDQASEIQVTMMLTESCKLRGLHHRNLLPITHVCIEEKEKPMVILPYMNVGNLK  
 LFLRQCKLVEANNPQAISSQDLVHMAIQIACGMSYLARREVIHKDLAARNCVIDDTLQVKITDNALSRDL  
 FPMDYHCLGDNENRPVRWMALESLVNNEFSSASDVWAFVTLWELMTLGQTPYVDIDPFEMAAYLKDGYY  
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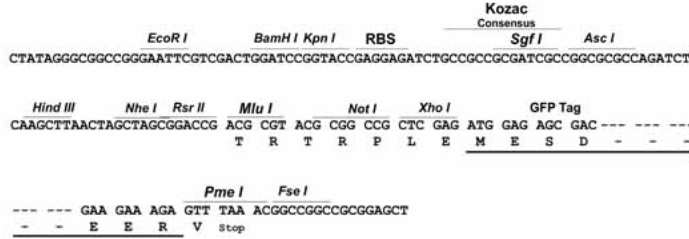
SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

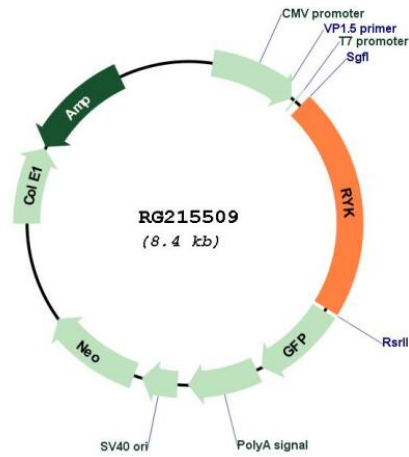
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_002958  
 ORF Size: 1821 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_002958.4</a>
<b>RefSeq Size:</b>	2951 bp
<b>RefSeq ORF:</b>	1824 bp
<b>Locus ID:</b>	6259
<b>UniProt ID:</b>	<a href="#">P34925</a>
<b>Cytogenetics:</b>	3q22.2
<b>Domains:</b>	pkinase, TyrKc, S_TKc, WIF
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Gene Summary:</b>	The protein encoded by this gene is an atypical member of the family of growth factor receptor protein tyrosine kinases, differing from other members at a number of conserved residues in the activation and nucleotide binding domains. This gene product belongs to a subfamily whose members do not appear to be regulated by phosphorylation in the activation segment. It has been suggested that mediation of biological activity by recruitment of a signaling-competent auxiliary protein may occur through an as yet uncharacterized mechanism. The encoded protein has a leucine-rich extracellular domain with a WIF-type Wnt binding region, a single transmembrane domain, and an intracellular tyrosine kinase domain. This protein is involved in stimulating Wnt signaling pathways such as the regulation of axon pathfinding. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Feb 2012]