

Product datasheet for **RG215449**

RYK (NM_001005861) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RYK (NM_001005861) 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:

>RG215449 representing NM_001005861
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCGTGGGGCGGCGCGCTGGGGCGGCCGGGCGGAGTTGCCTCCGGGGGCCCGCGCCTGAGGGCCC
 CGCGCCCGCCGCTGCTGCTTCTGCTTGCCTGTTGCCGCTGCTGCCGCGCCTGGCGCTGCCGCGC
 CCCC GCCCGCGGCCCGGAGCTGCAGTCGGCTTCCGCGGGGCCAGCGTGAGTCTCTACCTGAGCGAG
 GACGAGGTGCGCCGGCTGATCGGTCTTGTATGCAGAACTTATTATGTGAGAAATGACCTTATTAGTCACT
 ACGCTCTATCCTTAGTCTGTTAGTACCCAGTGAGACAAATTTCTGCACCTCACCTGGCATGCGAAGTC
 CAAGGTTGAATATAAGCTGGGATCCAAGTGGACAATGTTTTGGCAATGGATATGCCCCAGGTCAACATT
 TCTGTTACAGGGGAAGTCCACGCACCTTATCAGTGTTCGGGTAGAGCTTCTGTACTGGCAAAGTAG
 ATTCTGAAGTTATGATACTAATGCAGCTCAACTTGACAGTAAATCTTCAAAAAATTTACCGTCTTAAA
 TTTTAAACGAAGGAAAATGTGCTACAAAAACTTGAAGAAGTAAAACTCAGCCTTGACAAAAACACT
 AGCAGAATATTTATGATCCTGTACATGCAGCTCCAACCACTTCTACGCGTGTGTTTTATATTAGTGTAG
 GGGTTTGTGTGCAGTAATTTCTCGTAGCAATAATATTAGCTGTTTTGCACCTTCATAGTATGAAAAG
 GATTGAACTGGATGACAGCATTAGTGCCAGCAGTAGTCCCAAGGGCTGTCTCAGCCATCCACCCAGACG
 ACTCAGTATCTGAGAGCAGACACGCCCAACAATGCAACTCCTATCACCAGCTCCTTAGGTTATCCTACCT
 TGCGGATAGAGAAGAACGACTTGAGAAGTGTCACTCTTTGGAGGCCAAAGGCAAGGTGAAGGATATAGC
 AATATCCAGAGAGAGGATAACTCTAAAAGATGTACTCCAAGAAGTACTTTTGGCGTATTTTCCATGGG
 ATTTTAAATAGATGAAAAGATCCAAATAAAGAAAAACAAGCATTGTCAAACAGTTAAAGATCAAGCTT
 CTGAAATTCAGGTGACAATGATGCTCACTGAAAGTTGTAAGCTGCGAGGTCTTTCACACAGAAATCTTCT
 TCCTATTACTCATGTGTATAGAAGAAGGAGAAAAGCCCATGGTGATATTGCCTTACATGAATTGGGGG
 AATCTTAAATTGTTTTACGACAGTGCAAGTTAGTAGAGGCCAATAATCCACAGGCAATTTCTCAGCAAG
 ACCTGGTACACATGGCTATTAGATTGCCTGTGGAATGAGCTACCTGGCCAGAAGGGAAGTCATCCACAA
 AGACCTGGCTGCCAGGAAGTGTGTCATTGATGACACACTTCAAGTTAAGATCACAGACAATGCCCTCTCC
 AGAGACTGTTCATGGACTATCACTGTCTGGGGACAATGAAAACAGGCCAGTTCGTTGGATGGCTC
 TTGAAAGTCTGGTTAATAACGAGTCTCTAGCGTAGTGTGTGGCCTTTGGAGTGACGCTGTGGGA
 ACTCATGACTCTGGCCAGACTCCCTACGTGGACATTGACCCCTCGAGATGGCCGCATACCTGAAAGAT
 GGTACCGAATAGCCAGCCAATCAACTGCTGATGAATATTGCTGTGATGGCTGTGCTGGGCCCT
 TAGATCCAGAGGAGAGGCCCAAGTTTCAGCAGCTGGTACAGTGCCTAACAGAGTTTCATGCAGCCCTGGG
 GCCTACGTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG215449 representing NM_001005861
 Red=Cloning site Green=Tags(s)

MRGAARLGRPGRSCLPGARGLRAPPPPLLLLLALLPLLAPGAAAAPAPRPPPELQSASAGPSVSLYLSE
 DEVRRLLGLDAELYYVRNDLISHYALSFLLVPSETNFLHFTWHAKSKVEYKLGQVDNVLAMDMPQVNI
 SVQGEVPRTLVFRVELSCTGKVDSEVMILMQLNLTVNSSKNFTVLNFKRRKMCYKLEEVKTSALDKNT
 SRTIYDPVHAAPTSTRVFYISVGVCCAVIFLVAIILAVLHLHSMKRIELDDISASSSSQGLSQPSTQT
 TQYLRADTPNNAITPITSSLYPTLRIEKNDLRSVTLLEAKGKVKDIAISRERITLKDVLQEGTFGRIFHG
 ILIDEKDPNKEKQAFVKTVKDQASEIQVTMMLTESCKLRGLHHRNLLPIHVCIEEGKPMVILPYMNNWG
 NLKFLRQCKLVEANNPQAISSQDLVHMAIQIACGMSYLARREVIHKDLAARNCVIDDTLQVKITDNALS
 RDLFPMDYHCLGDENRPVRWMALESVNNEFSSASDVWAFGVTWELMTLGQTPYVDIDPFEMAAYLKD
 GYRIAQPINCPDELFAVMACWALDPEERPQFQQLVQCLTEFHAALGAYV

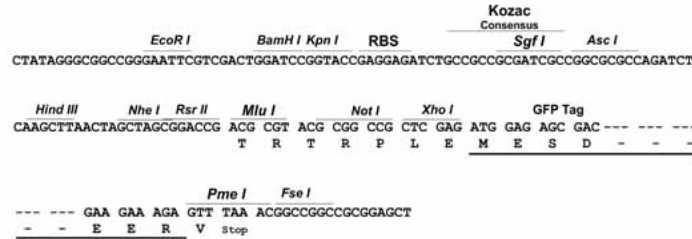
SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

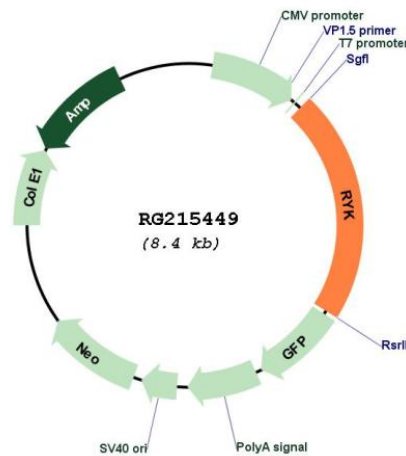
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001005861
 ORF Size: 1830 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:	<ol style="list-style-type: none">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_001005861.2 , NP_001005861.1
RefSeq Size:	2960 bp
RefSeq ORF:	1833 bp
Locus ID:	6259
UniProt ID:	P34925
Cytogenetics:	3q22.2
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Gene Summary:	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]