

## Product datasheet for **RC215449**

### **RYK (NM\_001005861) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RYK (NM_001005861) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RYK
Synonyms:	D3S3195; JTK5; JTK5A; RYK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC215449 representing NM\_001005861  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCGTGGGGCGGCGCGCTGGGGCGGCCGGAGTTGCCTCCGGGGGCCCGCGCCTGAGGGCCC  
 CGCCGCCCGCCGCTGCTGCTTCTGCTTGCCTGTTGCCGCTGCTGCCGCGCCTGGCGCTGCCGCGC  
 CCCC GCCCGCGGCCCGGAGCTGCAGTCGGCTTCCGCGGGGCCACGCTGAGTCTCTACCTGAGCGAG  
 GACGAGGTGCGCCGGCTGATCGGTCTTGTATGCAGAACTTATTATGTGAGAAATGACCTTATTAGTCACT  
 ACGCTCTATCCTTAGTCTGTTAGTACCCAGTGAGACAAATTTCTGCACCTCACCTGGCATGCGAAGTC  
 CAAGGTTGAATATAAGCTGGGATCCAAGTGGACAATGTTTTGGCAATGGATATGCCCCAGGTCAACATT  
 TCTGTTACAGGGGAAGTCCACGCACCTTATCAGTGTTCGGGTAGAGCTTCTGTACTGGCAAAGTAG  
 ATCTGAAGTTATGATACTAATGCAGCTCAACTGACAGTAAATCTTCAAAAAATTTACCGTCTTAAA  
 TTTTAAACGAAGGAAAATGTGCTACAAAAACTTGAAGAAGTAAAACTCAGCCTTGACAAAAACACT  
 AGCAGAATATTTATGATCCTGTACATGCAGCTCCAACCACTTCTACGCGTGTGTTTTATATTAGTGTAG  
 GGGTTTGTGTGCAGTAATTTCTCGTAGCAATAATATTAGCTGTTTTGCACCTTCATAGTATGAAAAG  
 GATTGAACTGGATGACAGCATTAGTGCCAGCAGTAGTTCCCAAGGGCTGTCTCAGCCATCCACCCAGACG  
 ACTCAGTATCTGAGAGCAGACACGCCCAACAATGCAACTCCTATCACCAGCTCCTTAGGTTATCCTACCT  
 TGCGGATAGAGAAGAACGACTTGAGAAGTGTCACTCTTTGGAGGCCAAAGGCAAGGTGAAGGATATAGC  
 AATATCCAGAGAGAGGATAACTCTAAAAGATGTACTCCAAGAAGTACTTTTGGCGTATTTTCCATGGG  
 ATTTTAAATAGATGAAAAGATCCAATAAAGAAAAACAAGCATTGTCAAACAGTTAAAGATCAAGCTT  
 CTGAAATTCAGGTGACAATGATGCTCACTGAAAGTTGTAAGCTGCGAGGTCTTCACAGAAAATCTTCT  
 TCCTATTACTCATGTGTATAGAAGAAGGAGAAAAGCCCATGGTGATATTGCCTTACATGAATTGGGGG  
 AATCTTAAATTGTTTTACGACAGTGCAAGTTAGTAGAGGCCAATAATCCACAGGCAATTTCTCAGCAAG  
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 GGTACCGAATAGCCAGCCAATCAACTGCTGATGAATTATTGCTGTGATGGCTGTGCTGGGCCCT  
 TAGATCCAGAGGAGAGGCCCAAGTTTCAGCAGCTGGTACAGTGCCTAACAGAGTTTCATGCAGCCCTGGG  
 GGCTACGTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAAATCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

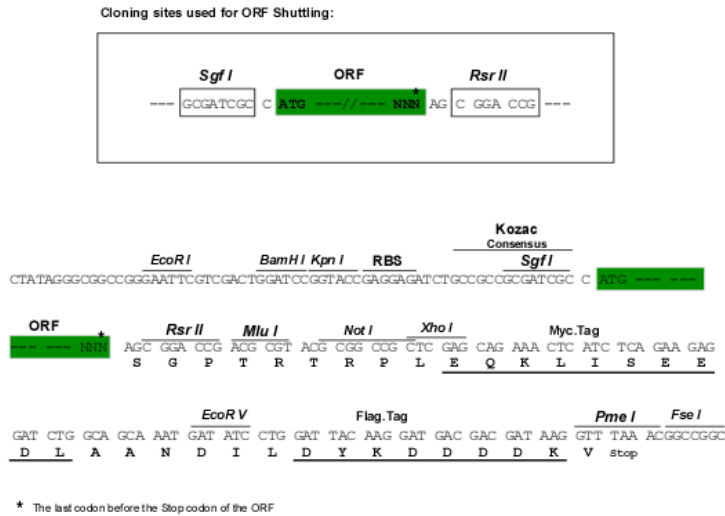
**Protein Sequence:**

>RC215449 representing NM\_001005861  
 Red=Cloning site Green=Tags(s)

MRGAARLGRPGRSCLPGARGLRAPPPPLLLLLALLPLLAPGAAAAPAPRPPELQSASAGPSVSLYLSE  
 DEVRRLLIGLDAELYYVRNDLISHYALSFLLVPSETNFLHFTWHAKSKVEYKLGQVDNVLAMDMPQVNI  
 SVQGEVPRTLVFRVELSCTGKVDSEVMILMQLNLTVNSSKNFTVLNFKRRKMCYKLEEVKTSALDKNT  
 SRTIYDPVHAAPTSTRVFIYSVGVCCAVIFLVAIILAVLHLHSMKRIELDDSSISASSSSQGLSQPSTQT  
 TQYLRADTPNNAITPITSSLYPTLRIEKNDLRSVTLLEAKGKVKDIAISRERITLKDVLQEGTFGRIFHG  
 ILIDEKDPNKEQAFVKTVKQASEIQVTMMLTESCKLRGLHHRNLLPIHVCIEEGKPMVILPYMNWG  
 NLKFLFRQCKLVEANNPQAISQQLVHMAIQIACGMSYLARREVIHKDLAARNCVIDDTLQVKITDNALS  
 RDLFPMDYHCLGDNENRPVRWMALESLVNNEFSSASDVWAFGVTLWELMTLQGTPYVDIDPFEMAAYLKD  
 GYRIAQPINCPDELFAVMACWALDPEERPKFQQLVQCLTEFHAALGAYV

**SGP**TRRRLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2722\\_c09.zip](https://cdn.origene.com/chromatograms/mg2722_c09.zip)  
**Restriction Sites:** SgfI-RsrII  
**Cloning Scheme:**



**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:**

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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

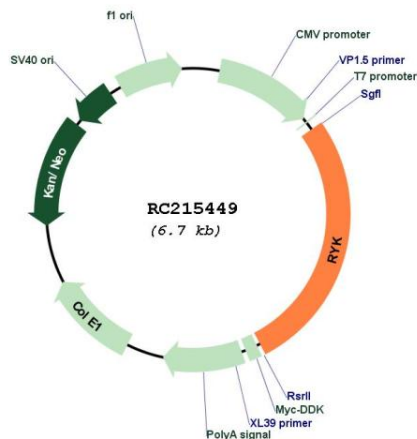
**RefSeq:** [NM\\_001005861.2](#), [NP\\_001005861.1](#)

**RefSeq Size:** 2960 bp

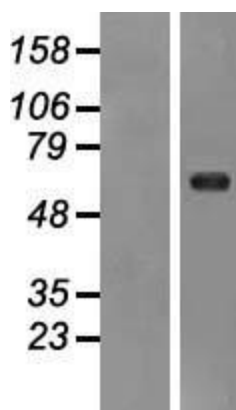
**RefSeq ORF:** 1833 bp  
**Locus ID:** 6259  
**UniProt ID:** [P34925](#)  
**Cytogenetics:** 3q22.2  
**Protein Families:** Druggable Genome, Protein Kinase, Transmembrane  
**MW:** 67.9 kDa

**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]

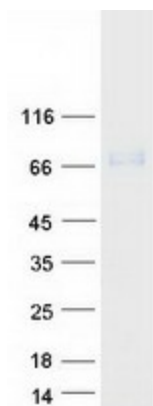
### Product images:



Circular map for RC215449



Western blot validation of overexpression lysate (Cat# [LY423665]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215449 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RYK protein (Cat# [TP315449]). The protein was produced from HEK293T cells transfected with RYK cDNA clone (Cat# RC215449) using MegaTran 2.0 (Cat# [TT210002]).