

Product datasheet for **RG201484**

RIOK2 (NM_018343) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RIOK2 (NM_018343) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RIOK2
Synonyms:	RIO2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG201484 representing NM_018343
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGAAAGTGAATGTGGCAAGTTGCGTTACATGAGCCGAGATGACTTCAGGGTCTTGACCCGGTTG
 AAATGGGCATGAAGAACCATGAAATTGTTCCCGCAGTTTGATTGCTTCTATAGCCAGCCTTAAACATGG
 TGGCTGTAAATAAAGTTTTAAGAGAAATTAGTGAAACATAAACTCATAGCTTGGGAGCGTACAAAACTGTC
 CAGGGCTATCGGTTGACAAATGCAGGATATGATTACCTAGCTTTGAAAACACTTTCTTCTAGGCAAGTAG
 TTGAGTCTGTTGGAAACAGATGGGTGTTGGCAAAGAATCAGATATTTACATTGTTGCAAAATGAAGAAGG
 ACAACAATTTGCATTAAGCTTTCACAGACTAGGAAGAACCTCGTTTCGAAATTTGAAAAACAACCGCAT
 TATCATAAATATAGGCACAATGTGTCATGGCTATATTTATCTCGTCTCTGCCATGAAGGAATTTGCCT
 ATATGAAGGCATTGTATGAGAGGAAATTTCCAGTTCCAAAGCCAATTGATTACAATCGTCATGCAGTGGT
 CATGGAACCTATAAATGGTTATCCACTATGTCAGATACACCATGTTGAAGATCCTGCATCAGTATATGAT
 GAAGCTATGGAACATAATTGTCAAACCTGCAAAATCATGGGCTGATTCATGGAGATTTTAATGAATTTAATC
 TCATTTTGGATGAAAGTGACCATATCACCATGATTGATTTTCCACAGATGGTTTCAAACCTTCTATCCCAA
 TGCTGAGTGGTATTTTGACAGAGATGTTAAATGCATTAAGATTTCTTTATGAAACGTTTCAGCTACGAA
 AGTGAGCTTTTTCCAACCTTTAAGGATATCAGGAGAGAAGACACTCTTGATGTGGAGGTTTCTGCCAGTG
 GCTACACAAAGGAAATGCAGGCAGATGATGAACTGCTTCCATTAGGTCCAGATGATAAAAAATTTGA
 AACAAAAGAGGGATCTGAATTCATTTTCAGATGGAGAAGTGGCAGAAAAAGCAGAGGTTTACGGGTCA
 GAAAATGAAAGTGAACGGAACCTGTCTAGAAGAATCAGAGGGCTGCTATTGCAGATCATCTGGAGACCCTG
 AACAAATAAAGGAAGACAGTTTATCAGAAGAGAGTGTGATGCACGGAGTTTTGAAATGACTGAATTCAA
 TCAAGCTTTAGAAGAAATAAAGGGCAGGTTGTTGAAAACAACCTGTAACCTGAATTTTCTGAGGAGAAA
 AACAGAATGAAAATTACAACAGGCAAGATGGTCAGAGAGTTCAAGGAGGAGTCCCTGCTGGCTCTGACG
 AGTATGAAGATGAATGCCCTCATCTAATTGCCTTGTCTGATTAATAGAGAATTCAGGCCTTTCAGAGA
 TGAAGAAAATGTGGGAGCTATGAATCAGTATAGAACAAGAATCTGAGTATCACTTCTTCAGGCAGTGT
 GTAAGCTGTTCAACAATTCCTCCAGAATGGTGAACAGAAGGTGAAACGTCAGTTGACAAAACAGCAAA
 AATCAGCTGTGACGCTGATTGCAGAAAGGAGAAGCAAAATATTTACCAAGCAACGTAGGAAAAACAT
 GCAAAATATCAAATCAAGTTTGAAGCAGCCAGCTTTTGGGGAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201484 representing NM_018343
 Red=Cloning site Green=Tags(s)

MGKVNVAKLRYMSRDDFRVLTAVEMGMKNHEIVPGSLIASIASLKHGGCNKVLRELVKHKLIAWERTKTV
 QGYRLTNAGYDYLALKTLSSRQVVEVSGNQMGVKESDIYIVANEEGQQFALKLHRLGRSFRNLKMKRD
 YHKYRHNVSWLYLSRLSAMKEFAYMKALYERKFPVPKPIDYNRHAVVMELINGYPLCQIHVEDPASVYD
 EAMELIVKLANHGLIHGDFNEFNLILDESDHITMIDFPQMVSTSHPNAEWYFDRDVKCIKDFFMKRFSEY
 SELFPTFKDIRREDTLDVEVSASGYTKEMQADDELLHPLGPDDKNIETKEGSEFSFSDGEVAEKAIEVYGS
 ENESERNCLIESEGCYCRSSGDPEQIKEDSLSEESADARSFEMTEFNQALEEIKGQVVENNSVTEFSEEK
 NRTENYNRQDQQRVQGGVPAGSDEYEDECPHLIALSSLNREFRPFREENVGAMNQYRTRLITSSGSA
 VSCSTIPPELVKQKVKRQLTKQKQSAVRRRLQKGEANIFTKQRRENMQNIKSSLEAASFWE

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_018343

ORF Size: 1656 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_018343.1](#), [NP_060813.1](#)

RefSeq Size: 1832 bp

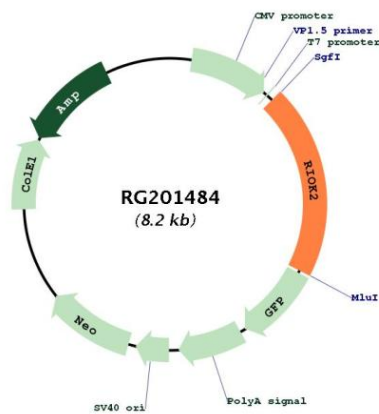
RefSeq ORF: 1659 bp

Locus ID: 55781

UniProt ID: [Q9BVS4](#)

Cytogenetics:	5q15
Domains:	RIO
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	Serine/threonine-protein kinase involved in the final steps of cytoplasmic maturation of the 40S ribosomal subunit. Involved in export of the 40S pre-ribosome particles (pre-40S) from the nucleus to the cytoplasm. Its kinase activity is required for the release of NOB1, PNO1 and LTV1 from the late pre-40S and the processing of 18S-E pre-rRNA to the mature 18S rRNA (PubMed:19564402). Regulates the timing of the metaphase-anaphase transition during mitotic progression, and its phosphorylation, most likely by PLK1, regulates this function (PubMed:21880710).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG201484