

## Product datasheet for **RC220667**

### **RIOK1 (NM\_031480) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RIOK1 (NM_031480) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RIOK1
Synonyms:	AD034; bA288G3.1; RIO1; RRP10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC220667 representing NM\_031480  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACTACCGCGGCTTCTCATGAGCCGGGTGGTCCCCGGCAATTCGACGACGCGGACTCCTCTGACA  
 GTGAAAACAGAGACTTGAAGACAGTCAAAGAGAAGGATGACATTCTGTTTGAAGACCTTCAAGACAATGT  
 GAATGAGAATGGTGAAGGTGAAATAGAAGATGAGGAGGAGGGTTATGATGATGATGATGATGACTGG  
 GACTGGGATGAAGGAGTTGAAAACCGCCAAGGGTTATGCTGGAATGGAGGAAGCAACCCACAGGCAA  
 ATCGACAGACCTCCGACAGCAGTTCAGCCAAAATGTCTACTCCAGCAGACAAGGTCTTACGGAAATTTGA  
 GAATAAAATTAATTTAGATAAGCTAAATGTTACTGATTCCGTCATAAATAAAGTCACCGAAAAGTCTAGA  
 CAAAAGGAAGCAGATATGTATCGCATCAAAGATAAGGCAGACAGCAACTGTAGAACAGGTGTTGGATC  
 CCAGAACAAGAATGATTTTATCAAGATGTTGACTAGAGGAATCATAACAGAGATAAATGGCTGCATTAG  
 CACAGGAAAAGAAGCTAATGTATACCATGCTAGCAGCAAAATGGAGAGAGCAGCAATCAAATTTAT  
 AAACTTCTATTTTGGTGTCAAAGATCGGGATAAATATGTAAGTGGAGAATTCAGATTTTCGTCATGGCT  
 ATTGTAAGGAAACCTAGGAAAATGGTAAAACCTGGGCAGAAAAGAAATGAGGAACTTAATCAGGCT  
 AAACACAGCAGAGATACCATGTCCAGAACCAATAATGCTAAGAAGTCATGTTCTTGTGATGAGTTTCATC  
 GGTAAAGATGACATGCCTGCACCACTCTTGAAAATGTCCAGTTATCAGAATCCAAGGCTCGGGAGTTGT  
 ACCTGCAGGTCATTCAGTACATGAGAAGAATGTATCAGGATGCCAGACTTGCCATGCAGATCTCAGTGA  
 ATTTAACATGCTGTACCACGGTGGAGGCGGTATATCATTGACGTGTCTCAGTCCGTGGAGCAGACCAC  
 CCACATGCCTTGGAGTTCTTGAAAAGGATTGCCCAACGTCAATGATTTCTTTATGAGGCACAGTGTG  
 CTGTCATGACTGTGCGGGAGCTTTTGAATTTGTCACAGATCCATTACACATGAGAACATGGATGTC  
 TTATCTCTCAAAGGCCATGGAAATAGCATCTCAAAGGACCAAGGAAGAACGGTCTAGCCAAGATCATGTG  
 GATGAAGAGGTGTTAAGCGAGCATATATTCCTAGAACCCTGAATGAAGTAAAAAATTATGAGAGGGATA  
 TGGACATAAATTATGAAATTGAAGGAAGAGGACATGGCCATGAATGCCAACAAGATAATATTCTATACCA  
 GACTGTTACAGGATTGAAGAAAGATTTGTGAGGAGTTCAGAAGTCCCTGCACTCCTAGAAAATCAAGTG  
 GAGGAAAGGACTTGTCTGATTGAGAAGATATTGGAAGCTCTGAGTGCTCTGACACAGACTCTGAAGAGC  
 AGGGAGACCATGCCCGCCCAAGAAACACACCACGACCCTGACATTGATAAAAAAGAAAGAAAAAGAT  
 GGTC AAGGAAGCCAGAGAGAGAAAAGAAAAACAAAATTCCTAACATGTGAAAAAAGAAAGGAGAAG  
 ACAGCCAAGACGAAAAAAGGCAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220667 representing NM\_031480  
 Red=Cloning site Green=Tags(s)

MDYRLLMSRVVPGQFDDADSSDENRDLKTVKEKDDILFEDLQDNVNGEGEIEDEEEEGYDDDDDDW  
 DWDEGVGKLAKGYVWNGSNPQANRQTSDDSSAKMSTPADKVLRFENKINLDKLNVTDSVINKVTEKSR  
 QKEADMYRIKDKADRATVEQVLDPRTRMILFKMLTRGIIITEINGCISTGKEANVYHASTANGESRAIKIY  
 KTSILVFKDRDKYVSGEFRFRHGYCKGNPRKMVKTWAEEKEMRNLIRLNTAEIPCPEPIMLRSHVLVMSFI  
 GKDDMPAPLLKNVQLSESKARELYLQVIQYMRMYQDARLVHADLSEFNMLYHGGVYIIDVSQSVEHDH  
 PHALEFLRKDCANVNDFFMRHSVAVMTVRELFEFVTDPSITHENMDAYLSKAMEIASQRTKEERSSQDHV  
 DEEVFKRAYIPRTLNEVKNYERMDIIMKLKEEDMAMNAQQDNILYQTVTGLKKDL SGVQKVPALLENQV  
 EERTCSDSEDIGSSECSDTDSEEQGDHARPKHTTDPDIDKKERKKMVKEAQREKRKNKIPKHVKKRKEK  
 TAKTKKGG

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6104\\_a10.zip](https://cdn.origene.com/chromatograms/mk6104_a10.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_031480

**ORF Size:** 1704 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\\_031480.2](#), [NP\\_113668.2](#)

**RefSeq Size:** 2495 bp

**RefSeq ORF:** 1707 bp

**Locus ID:** 83732

**UniProt ID:** [Q9BRS2](#)

**Cytogenetics:** 6p24.3

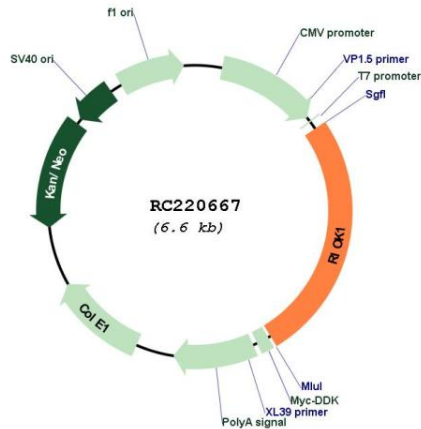
**Domains:** RIO

**Protein Families:** Druggable Genome, Protein Kinase

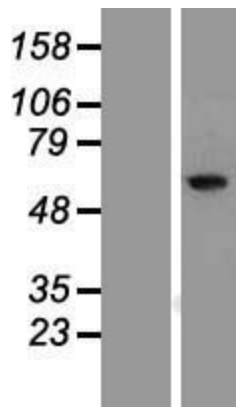
**MW:** 65.4 kDa

**Gene Summary:** The protein encoded by this gene competes with pICln for inclusion in the protein arginine methyltransferase 5 complex. This complex targets substrates for dimethylation. The encoded protein is essential for the last steps in the maturation of 40S subunits. [provided by RefSeq, Jan 2017]

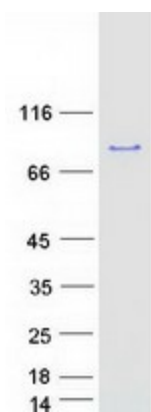
**Product images:**



Circular map for RC220667



Western blot validation of overexpression lysate (Cat# [LY410475]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220667 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RIOK1 protein (Cat# [TP320667]). The protein was produced from HEK293T cells transfected with RIOK1 cDNA clone (Cat# RC220667) using MegaTran 2.0 (Cat# [TT210002]).