

## Product datasheet for **RC211359**

### **RIC8 (RIC8A) (NM\_021932) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RIC8 (RIC8A) (NM_021932) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RIC8
Synonyms:	RIC8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC211359 representing NM\_021932  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCCCCGGGCGGTTGCAGAAGCCGTGGAGACGGGTGAGGAGGATGTGATTATGGAAGCTCTCGCGT  
 CATACAACCAGGAGCACTCCAGAGCTTACGTTTGTATGATGCCAACAGGAGGACCGGAAGAGACTGGC  
 GGAGTGTGGTCTCCGTCCTGGAACAGGGCTTGCCACCCTCCACCGTGTTCATCTGGCTGCAGAGTGT  
 CGAATCTGTCCCGGGACCGCAACTGCCTGGACCCGTTACCAGCCGCCAGAGCTGCAGGCACTAGCCT  
 GCTATGCTGACATCTCTGTCTCTGAGGGTCCGTCAGAGTCCGAGACATGGATGTTGTACTGGAGTC  
 CCTCAAGTGCCTGTGCAACCTCGTCTCAGCAGCCCTGTGGCACAGATGCTGGCAGCAGAGGCCCGCTA  
 GTGGTGAAGCTCACAGAGCGTGTGGGGTGTACCGTGAGAGGAGCTTCCCCACGATGTCCAGTTCTTTG  
 ACTTGGCGCTCCTTCTGCTAACGGCACTCCGACCGATGTGCCAGCAGCTGTTTCAGGAGCTGAA  
 AGGAGTGGCCTGCTAACTGACACACTGGAGTGCAGCTGGGGGTGACTCCTGAAGGGAACCCCCACCC  
 ACGCTCCTTCTCCCAAGAGACTGAGCGGGCCATGGAGATCCTCAAAGTGTCTTCAACATCACCCCTGG  
 ACTCCATCAAGGGGGAGGTGGACGAGGAAGACGCTGCCCTTACCAGACCTGGGGACCTTCTCCGGCA  
 CTGTGTGATGATCGTACTGCTGGAGACCCACAGAGGAGTCCACGGCCACGCAGTGAACCTCCTGGGG  
 AACTTGCCCTCAAGTGTCTGGATGTTCTCCTCACCCCTGGAGCCACATGGAGACTCCACGGAGTTTATG  
 GAGTGAATATGGATGTGATTCGTGCCCTCCTCATCTTCTAGAGAAGCGTTTGCACAAGACACAGGCT  
 GAAGGAGAGTGTAGTCCCGTGTGAGCGTGTGACTGAATGTGCCCGGATGCACCGCCAGCCAGGAAG  
 TTCTGAAGGCCAGGGATGGCCACCTCCAGGTGTGCCCTCTGCGGGATGTGAGGACACGGCCTG  
 AGGTTGGGGAGATGCTGCGGAACAAGCTGTCCGCCTCATGACACACTGGACACAGATGTGAAGAGGGT  
 GGCTGCCGAGTCTTGTGTTGTCCTGTGCTCTGAGAGTGTGCCCGATTCAAGTACACAGGCTATGGG  
 AATGCTGCTGGCCTTCTGGCTGCCAGGGCCCTCATGGCAGGAGGCCGCCGAGGGCCAGTACTCAGAGG  
 ATGAGGACACAGACAGATGAGTACAAGGAAGCCAAAGCCAGCATAAACCTGTGACCGGGAGGGTGA  
 GGAGAAGCCGCTAACCCATGGAGGGCATGACAGAGGAGCAGAAGGAGCAGGAGCCATGAAGCTGGT  
 ACCATGTTTGACAAGCTCTCCAGGAACAGAGTATCCAGCCAATGGGGATGAGTCCCGGGGTATCTTA  
 CGTCCCTGCAGGATGCCATGTGCGAGACTATGGAGCAGCAGCTCTCCTCGGACCTGACTCGGACCCTGA  
 C

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC211359 representing NM\_021932  
 Red=Cloning site Green=Tags(s)

MEPRAVAEAVETGEEDVIMEALRSYNQEHQSFTFDDAQQEDRKRLAELLVSVLEQGLPPSHRVIWLQSV  
 RILSRDRNCLDPFTSRQSLQALACYADISVSEGSVPESADMDVLESLKCLCNLVLSSPVAQMLAAEARL  
 VVKLTERVGLYRERSFPHDVQFFDLRLLFLLTALRTDVRQQLFQELKGVRLTDTLELTLGVTPEGNPPP  
 TLLPSQETERAMEILKVLFNITLDSIKGEVDEEDAALYRHLGTLRHCVMATAGDRTEEFHGHAVNLLG  
 NLPLKCLDVLLTLEPHGDSTEFMGVNMDVIRALLIFLEKRLHKTHRLKESVAPVLSVTECARMHRPARK  
 FLKAQGWPPPQVLPPLRDVTRPEVGEMLRNKLVRMLTHLDTDVKRVAEFLVLCSESVPRIKYTYG  
 NAAGLLAARGLMAGGRPEGQYSEDEDTDDEYKEAKASINPVTGRVEEKPMPMEGMTEEQKEHEAMKLV  
 TMFDKLSRNRVIQPMGMSPRGHLTSLQDAMCETMEQQLSSDPDSDPD

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6044\\_d05.zip](https://cdn.origene.com/chromatograms/mk6044_d05.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_021932

**ORF Size:** 1611 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\\_021932.5](#)
**RefSeq Size:** 2714 bp

**RefSeq ORF:** 1614 bp

**Locus ID:** 60626

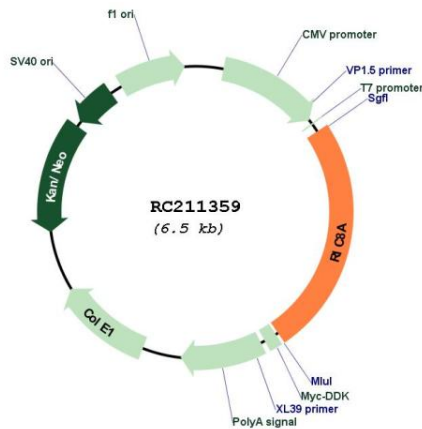
**UniProt ID:** [Q9NPO8](#)

**Cytogenetics:** 11p15.5

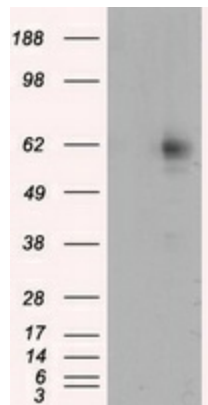
**MW:** 60.2 kDa

**Gene Summary:** Guanine nucleotide exchange factor (GEF), which can activate some, but not all, G-alpha proteins. Able to activate GNAI1, GNAO1 and GNAQ, but not GNAS by exchanging bound GDP for free GTP. Involved in regulation of microtubule pulling forces during mitotic movement of chromosomes by stimulating G(i)-alpha protein, possibly leading to release G(i)-alpha-GTP and NuMA proteins from the NuMA-GPSM2-G(i)-alpha-GDP complex (By similarity). Also acts as an activator for G(q)-alpha (GNAQ) protein by enhancing the G(q)-coupled receptor-mediated ERK activation.[UniProtKB/Swiss-Prot Function]

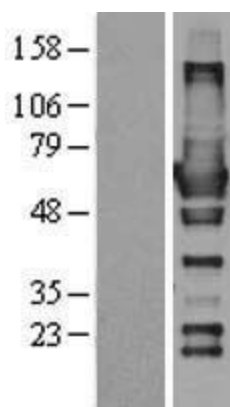
**Product images:**



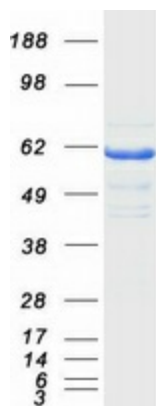
Circular map for RC211359



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RIC8A (Cat# RC211359, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RIC8A(Cat# [TA501055]). Positive lysates [LY402886] (100ug) and [LC402886] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402886]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211359 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RIC8A protein (Cat# [TP311359]). The protein was produced from HEK293T cells transfected with RIC8A cDNA clone (Cat# RC211359) using MegaTran 2.0 (Cat# [TT210002]).