

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.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGAGCCCCGGGCGGTTGCAGAAGCCGTGGAGACGGGTGAGGAGGATGTGATTATGGAAGCTCTGCGG
TCATACAACAGGAGACTCCAGAGCTTACGTTTGTATGATGCCAACAGGAGGACCGGAAGAGACTG
GCGGAGCTGCTGGTCTCCGTCTTGAACAGGGCTTGCCACCCTCCACCCTGTACTCTGGCTGCAGAGT
GTCCGAATCCTGTCCCGGACCGCAACTGCCTGGACCCGTTACCAAGCCGAGAGCCTGCAGGCACTA
GCCTGCTATGCTGACATCTGTCTCTGAGGGGTCGTCACAGAGTCCGCAGACATGGATGTTGTACTG
GAGTCCCTCAAGTGCCTGTGCAACCTCGTCTCAGCAGCCCTGTGGCACAGATGCTGGCAGCAGAGGCC
CGCCTAGTGGTGAAGCTCACAGAGCGTGTGGGGCTGTACCGTGAGAGGAGCTTCCCCACGATGTCCAG
TTCTTTGACTTGGGCTCCTCTTCTGCTAACGGCACTCCGACCGATGTGCGCCAGCAGCTGTTTCAG
GAGCTGAAAGGAGTGCCTGCTAACTGACACACTGGAGCTGACGCTGGGGGTGACTCCTGAAGGGAAC
CCCCACCCACGCTCCTTCTTCCCAAGAGACTGAGCGGGCCATGGAGATCCTCAAAGTGTCTTCAAC
ATACCCTGGACTCCATCAAGGGGGAGGTGGACGAGGAAGACGCTGCCCTTACCACACCTGGGGACC
TTCTCCGGCACTGTGTGATGATCGCTACTGCTGGAGACCGCACAGAGGATTCAGGGCCACGAGTG
AACCTCCTGGGAACTTGCCCTCAAGTGTCTGGATGTTCTCCTACCCTGGAGCCATGGAGACTCC
ACGGAGTTCATGGGAGTGAATATGGATGTGATTCGTCGCCCTCCTCATCTTCTAGAGAAGCGTTGCAC
AAGACACACAGGCTGAAGGAGAGTGTAGCTCCCGTGTGAGCGTGTGACTGAATGTGCCCGGATGCAC
CGCCAGCCAGGAAGTTCCTGAAGGCCAGGATGGCCACCTCCCAGGTGCTGCCCCCTCTGCGGGAT
GTGAGGACACGGCCTGAGGTTGGGGAGATGCTGCGGAACAAGCTGTCCGCCTCATGACACACCTGGAC
ACAGATGTGAAGAGGGTGGCTGCCGAGTCTTGTGTTGCTCTGAGAGTGTGCCCGGATTCATC
AAGTACACAGGCTATGGGAATGCTGCTGGCCTTCTGGCTGCCAGGGCCCTCATGGCAGGAGGCCGCCC
GAGGGCCAGTACTCAGAGGATGAGGACACAGACAGATGAGTACAAGGAAGCCAAAGCCAGCATAAAC
CCTGTGACCGGGAGGGTGGAGGAGAAGCCGCTAACCTATGGAGGGCATGACAGAGGAGCAGAAGGAG
CACGAGGCCATGAAGCTGGTACCATGTTTGACAAGCTCTCCAGGAACAGAGTATCCAGCCAATGGGG
ATGAGTCCCCGGGTGATCTTACGTCCCTGCAGGATGCCATGTGCGAGACTATGGAGCAGCAGCTCTCC
TCGGACCCTGACTCGGACCCTGAC
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
```

Protein Sequence:

>Peptide sequence encoded by RC211359
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MEPRVAEAVETGEEDVIMEALRSYNQEHSSQSFDFDAQQEDRKRLAELLVSVLEQGLPPSHRVIWLQS
VRILSRDRNCLDPFTSRQSLQALACYADISVSEGSVPESADMDVVLESLKCLCNLVLSSPVAQMLAAEA
RLVVKLTERVGLYRERSFPHDVQFFDLRLLFLLTALRTDVRQQLFQELKGVRLTDTLELTLGVTPEGN
PPPTLLPSQETERAMEILKVLFNITLDSIKGEVDEEDAALYRHLGTLRHCVMIATAGDRTEEFQGHAV
NLLGNLPLKCLDVLLTLEPHGDSTEFMGVNMVIRALLIFLEKRLHKTHRLKESVAPVLSVLTECARMH
RPARKFLKAQGWPPPQVLPPLRDVTRPEVGEMLRNKLVRLMTHLDTDKRVAAEFLFVLCSESVPRFI
KYTYGNAAGLLAARGLMAGGRPEGQYSEDEDTDEYKEAKASINPVTGRVEEKPPNPMEGMTEEQKE
HEAMKLVTFDKLSRNRVIQPMGMSPRGHLTSLQDAMCETMEQQLSSDPDSDPD
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

Recombinant protein using RC211359 also available, [TP311359](#)

Chromatograms:

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.

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

RefSeq Size: 2714 bp

RefSeq ORF: 1614 bp

Locus ID: 60626

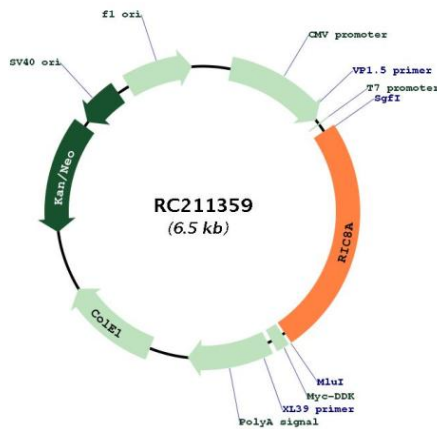
UniProt ID: [Q9NPQ8](#)

Cytogenetics: 11p15.5

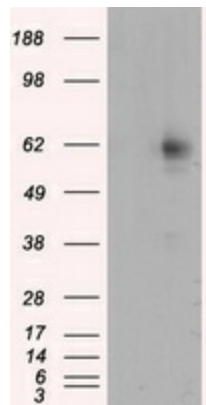
MW: 60.4 kDa

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]

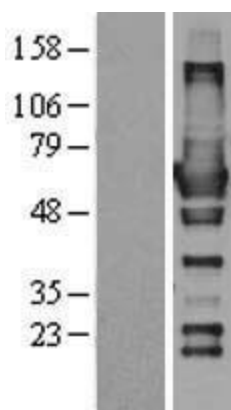
Product images:



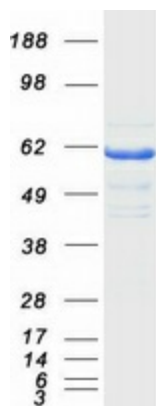
Circular map for RC211359



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]).