

Product datasheet for **RC220614**

ARHGAP22 (NM_021226) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGAP22 (NM_021226) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARHGAP22
Synonyms:	RhoGAP2; RhoGap22
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC220614 representing NM_021226
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGAGCCAAAGATCAGGCAGGCCAGGAGGCCCGCTCCAAAAGCCTAGTGATGGGGGAGCAGAGCC
 GGAGCCCTGGGCGGATGCCGTGCCCTCACAGGCTGGGCCCGTGCTGAAGGCGGGCTGGCTGAAGAAGCA
 GAGGAGCATCATGAAGAACTGGCAGCAGCGCTGGTTTGTGCTGCGTGGGGATCAGCTTTTCTACTACAAG
 GACAAAGATGAGATCAAGCCCCAGGGATTTATTTCTCTACAAGGGACACAGGTGACTGAACCTCCTCCTG
 GCCCGAGGACCCAGGGAAGCACCTCTTTGAGATCAGCCAGGTGGTCCCGGGAGCGGGAGAAGGTGCC
 GGCCAACCCGAGGCGCTCCTGCTCATGGCCAGCTCCCAGCGTGACATGGAGGACTGGGTGCAGGCCATC
 CGCCGAGTCATCTGGGCCCGCTGGGCGGAGGGATCTTTGGGCAGCGCCTAGAGGAAACAGTCCACCACG
 AGCGGAAGTATGGCCCCCGCTGGCGCCCTGCTGGTGGAGCAGTGTGTGGACTTCATCCGGGAGCGCGG
 GCTCACTGAGGAGGGCTGTTCCGCATGCCAGGCCAGGCCAACCTGGTGAGGGACCTGCAGGATTCCTTC
 GACTGTGGGGAGAAGCCACTGTTTGACAGCACAAACAGACGTGCACACGGTGGCCTCCCTGCTGAAGCTGT
 ACCTGCGGGAGCTCCCCGAGCCCGTGGTCCCCTTCGCCAGGTACGAGGACTTCCTCAGCTGCGCCAGCT
 GCTCACC AAGGACGAGGGGGAGGGCACTCTGGAGTTGGCTAAACAAGTGAGCAACCTTCCTCAGGCAAT
 TACAACCTGCTCAGATACATCTGCAAGTTTCTGGATGAAGTTCAGGCATACTCAAATGTCAACAAGATGA
 GTGTCCAGAATCTGGCAACCGTTTTTGGACCTAACATTCTGCGGCCACAGGTAGAGGACCCAGTAACCAT
 CATGGAAGGCACTTCCTCGTCCAGCACCTGATGACCGTCTCATCCGAAACACAGCCAGCTCTTCAGG
 GCACCGGTCCCGAAGGGCCACCTCCCGCGCGGGGGCTGCAATGCGCAGTGGGTGGGGTCCGAGG
 AGGTACCAGGGACAGCCAAGGAGAGCCCGCGGCCCGCCGCTGCCCGCGCACAGGACCTTTCCTGGA
 CGGGGCGGCCGTGGCGGTGCTCTCCAGAACAGCCCCACGGGGCCGGGGAGCCGGTGCAGCCCTGGGAAG
 AAGGTGCAGACCTGCCAGTTGGAAGTCTCCTTCGGCAGCCGAGGTCCCTATCGGGAAGCCCGAAGG
 GGGGCGGCTCATCCCTGGAGGTGCCATCATCTCCTCCGGCGGGAAGTGGCTTATGAACGGGCTGTCTC
 CCTGCGCGGACACCGCCGGGCTCGTCGGGAGACCGGCTCAAGGACTCGGGCTCCGTGCAGAGACTCTCC
 ACCTACGACAATGTGCCCGCGCCGGCCTGGTCCCGGCATACCCAGCGTGGCCAGTATGGCGTGGTCCG
 GGGCCTCGTCCAGCGAGTCTCGGTGGGGGCTCACTCAGCAGCTGCACGGCCTGCCCGCCAGCGACTC
 GTCTGCCCGCAGTTCCTGCACACCGACTGGGCCCTGGAGCCCTCCCGCTCCCCAGCAGCAGCGAGGAC
 CCCAAGTCCCTGGACCTGGACCACAGCATGGACGAGGCGGGCGGGTGCAGCAACAGCGAGCCAGCG
 AGCCGGACAGCCCACCCGGGAACAGCGCGCCGCTCCGAGGCCTTACAGGGGCTGGTCACTGAGCTCAG
 GGCCGAGCTGTGCCGCCAGCGGACTGAGTACGAGAGGAGTGTGAAAAGAATCGAAGAAGGGAGTGTGAC
 CTGAGAAAACGAATGTCCCGTTAGAAGAAGAACTGGACCAGGAAAAGAAAAATACATCATGTGGAAA
 TAAAGTCTCGGAACTCTGAACGGGCGGGGAGGATGCGGAGAGGAGGAACCAGCTGTTGCAGAGGAAAT
 GGAGGAGTTTTTTTCGACCCTAGGAAGCTTGACTGTTGGGGCAAAGGTGCCAGGGCCCCAAAG

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220614 representing NM_021226
Red=Cloning site Green=Tags(s)

MLSPKIRQARRARSKSLVMGEQSRSPGRMPCPHRLGPVLKAGWLKKQRSIMKNWQQRWFVLRGDQLFYYK
 DKDEIKPQGFISLQGTQVTELP GPEDPGKHLFEISPGGAGEREKVPANPEALLMASSQRDMEDWVQAI
 RRVIIWAPLGGGIFGQRLEETVHHERKYGPRLAPLLVEQCVDVDFIRERGLTEEGLFRMPGQANLVRDLQDSF
 DCGEKPLFDSTTDVHTVASLLKLYLRELPEPVVFPARYEDFLSCAQLLTKDEGEGLLELAKQVSNLPQAN
 YNLLRYICKFLDEVQAYSNNKMSVQNLATVFGPNILRPQVEDPVTIMEGTSLVQHLMTVLIKHSQFT
 APVPEGPTSPRGGLQCAVWGSEEVTRDSQGEPPGGLPAHRTSSLDGAAVAVLSRTAPTGPSRCSGPK
 KVQTLPSWKSSFRQPRSLSGSPKGGSSLEVPIISSGGNWMNGLSSLRGHRRASSGDRDKDSGSVQRLS
 TYDNVPAPGLVPGIPSVASMAWSGASSESSVGGSLSSCTACRASDSSARSSLHTDWALEPSPLPSSSED
 PKSLDLDHSMDEAGAGASNSEPSPTREHARRSEALQGLVTELRaelCRQRTEYERSVKRIEESGAD
 LRKRMSRLEEELDQEKKKYIMLEIKLRNSERAREDAERRNQLQREMEEFFSTLGS LTVGAKGARAPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8042_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021226

ORF Size: 2094 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_021226.4](#)

RefSeq Size: 2775 bp

RefSeq ORF: 2097 bp

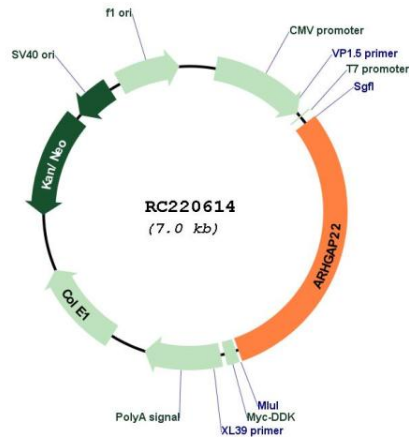
Locus ID: 58504

UniProt ID: [Q7Z5H3](#)

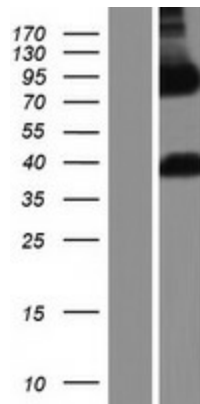
Cytogenetics: 10q11.22-q11.23

MW: 76.6 kDa

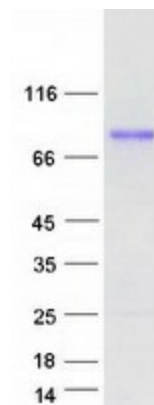
Gene Summary: This gene encodes a member of the GTPase activating protein family which activates a GTPase belonging to the RAS superfamily of small GTP-binding proteins. The encoded protein is insulin-responsive, is dependent on the kinase Akt and requires the Akt-dependent 14-3-3 binding protein which binds sequentially to two serine residues. The result of these interactions is regulation of cell motility. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]

Product images:


Circular map for RC220614



Western blot validation of overexpression lysate (Cat# [LY412001]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220614 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARHGAP22 protein (Cat# [TP320614]). The protein was produced from HEK293T cells transfected with ARHGAP22 cDNA clone (Cat# RC220614) using MegaTran 2.0 (Cat# [TT210002]).