

Product datasheet for RC213956

p114RhoGEF (ARHGEF18) (NM_015318) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	p114RhoGEF (ARHGEF18) (NM_015318) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARHGEF18
Synonyms:	P114-RhoGEF; p114RhoGEF; RP78; SA-RhoGEF
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC213956 representing NM_015318 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACGGTCTCTCAGAAAGGGGGTCCCCAGCCAACACCGAGCCCGCTGGCCCTGGGACGCAACTCGGAC
CAATCACAGGAGAGATGGATGAAGCCGATTCTGCGTTTTTAAAATTTAAGCAGACAGCTGATGACTCTCT
GTCCCTTACATCTCCAAACACCGAGTCCATTTTGTAGAAAGATCCCTACACCGCCTCGTGAGGAGTGAG
ATTGAGTCAGACGGCCACGATTTGAAGCTGAGTCTGGAGCCTCGCCGTGGATGCAGCCTACGCCAAGA
AGCAAAAGAGGGAGGTGGTAAAAGACAAGATGTCCTTTATGAGCTGATGCAGACAGAGGTGCACCACGT
GCGGACGCTCAAGATCATGCTGAAGGTGTACTCCAGGGCCCTGCAGGAGGAGCTGCAGTTCAGCAGCAAG
GCCATTGGCCGCTCTTCCCATGCGCTGACGACCTGCTGGAGACGCACAGCCACTTCTCGCTCGGCTCA
AGGAGCGCCGAGGAGTCCCTGGAGGAGGCGAGTGACCGAAATTATGTCATCCAGAAAATCGGCGACCT
CCTGGTTCAGCAGTTTTCAGGTGAAAATGGGGAGAGAATGAAAGAAAAGTACGGTGTGTTTTGTAGTGGC
CACAATGAAGCTGTTAGTCATTACAAGTTGCTGCTTCAAGAAAACAAGAAATTTCAAACCTTGATCAAGA
AAATTGGCAACTTCCATCGTGGCGGCTTGGCGTGCAGGAGTGCATTTCTCGTTACACAACGCAT
AACCAAATACCCAGTGTGGTGGAGCGCATCATCCAGAACCGGAAGCTGGCACTGAGGACTATGAAGAC
CTGACCCAGGCCCTGAACCTCATCAAAGATATCATCTCACAAGTGGACGCCAAGTCAAGTCAAGTGTGAGA
AGGGCCAGCGCCTCAGGGAGATCGCAGGGAAGATGGACCTGAAGTCTTCCAGCAAACCTAAGAACGGGCT
CACCTTCCGCAAGGAAGACATGCTTCAAGCGGACGCTCCACCTGGAGGGCATGCTATGCTGGAAGACCACA
TCAGGGCGCTTGAAGATATCCTGGCTATCCTGCTGACCGACGTAATTTTGTGCTACAAGAAAAGATC
AGAAAACGTCCTTTGCTTCTGTGGACTCAAAGCCACCCGTCATCTCGTTACAAAAGCTCATCGTGAGGGA
AGTGGCAACGAGGAGAAAGCGATGTTTCTGATCAGCGCCTCCTTGAAGGGCCGGAGATGTATGAAATC
TACACGAGCTCCAAGAGGACAGGAACGCTGGATGGCCACATCCAAGGGCTGTGGAGAGCTGCCTG
ACGAGGAGGAGGGCCCTTCAAGAGCGGTTGAGCATGAAAGACCAGCTGATCGCACAGAGCCTCTAGAGAAAACAGCAG
CCGGGACTTTCAAGAGCGGTTGAGCATGAAAGACCAGCTGATCGCACAGAGCCTCTAGAGAAAACAGCAG
ATCTACCTGGAGATGGCCGAGATGGCGGCCCTCGAAGACCTGCCCCAGCCCCGAGGCCTATTCCGTGGAG



[View online »](#)

GGGACCCATCCGAGACCTGCAGGGGAGCTAATTCTCAAGTCGGCCATGAGCGAGATCGAGGGCATCCA
 GAGCCTGATCTGCAGGCAGCTGGGCAGCGCCAACGGCCAGGCGGAAGACGGAGGCAGCTCCACAGGCCCC
 CCCAGGAGGGCTGAGACCTTCGCGGGCTACGACTGCACAAACAGCCCCACCAAGAATGGCAGTTTCAAGA
 AGAAAGTCAGCAGCACTGACCCAGGCCCGGAGACTGGCGAGGCCCCCAACAGCCGGACTTGAAGCT
 CAGTGACAGTGACATTCCTGGGAGCTCTGAGGAATCGCCGAGGTGGTGGAGGCGCCAGGCACGGATCC
 GATCCCCGTCTGCCACCGTCTGGAGTCGGAGCTTGTCCAGCGGATCCAGACACTGTCCCAGCTGCTCC
 TGAACCTTCAGGCGTAATCGCCACCAGGACAGCTATGTGGAGACGACGCGGGTGCCATCCAGGAGCG
 GGAGAAGCAGTTCGGCTGCAGTCGACGCTGGGAACCTGCTGCTGGAGCAGGAGCGGCAACGCAACTTC
 GAGAAGCAGCGGAGGAGCGCGCGCCCTGGAGAAGCTGCAGAGCCAGCTGCGGCACGAGCAGCAGCGCT
 GGGAGCGGAGCGCCAGTGGCAGCACCAGGAGCTGGAGCGTGCGGGCGCGGGCTGCAGGAGCGCGAGGG
 CGAGGCGCGGAGCTACGCGAGCGGCTGGAGCAGGAGCGGGCCGAGCTGGAGCGCCAGCGCCAGGCCTAC
 CAGCAGCACTGGAGCGGCTGCGCGAGGCCAGCGTCCGCTGGAGCGGAGCGGGAGCGCTGGAGCTGC
 TGGCCGCTCAAGAAGCAGAACCAGCGCCAGGCGCTGCCGCCGACACTGGCCGAGGCCAGCC
 CCCAAGCCACCCTCCAGCTTCAACGGGAAGGGCTGGAGGGCCCTCGTGTGAGCATGCTGCCATCCGGC
 GTGGGGCCAGAGTACGCAGAGCGCCCGAGGTGGCTCGCCGGGACAGCGCCCCACCGAGAACCAGCTGG
 CCAAGAGCGATGTGCCATCCAGCTGCTCAGCGCCACCAACAGTTCAGAGGCAGGCGCGCTGCAGCA
 GCAGATCCCCACCAAGCTGGCGGCTCCACCAAGGGTGGCAAGGACAAGGGCGGCAAGAGCAGGGGCTCT
 CAGCGCTGGGAGAGCTCAGCGTCTTCGACCTGAAGCAGCAGCTGCTGCTCAACAAGCTCATGGGAAAG
 ATGAGAGCACCTACGGAACCGCGCTCGCTGAGCCCTATCCTGCCCGGAGACACAGTCTGCGCCCC
 ACCAGACCCTGGCTTCCCGCCCCGAGCCACCAGCTGACAGCCCCCTCCGAGGGCTTCTCTCAAG
 GCCGGGGCACAGCCCTCTGCCGGGCCCCAGCTCCCTGCCACTGCCGGCCACCACTCAGCGCCA
 AGGAGGACGCCAGCAAAGAAGACGTATCTTCTTC

AGCGGACCGACGCTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213956 representing NM_015318
 Red=Cloning site Green=Tags(s)

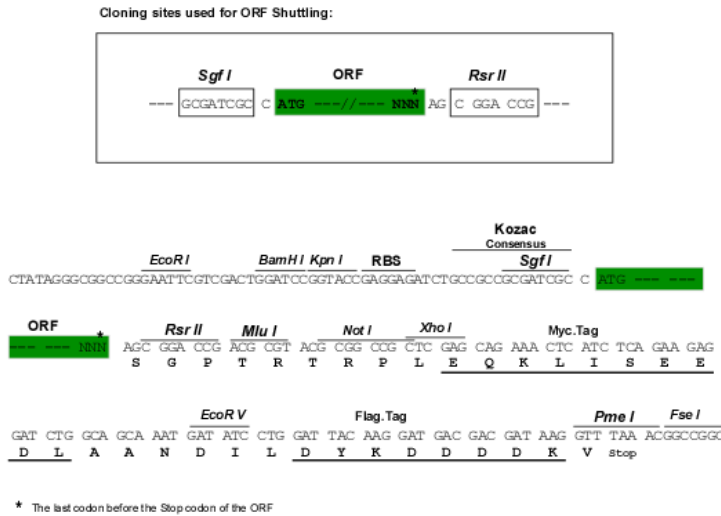
MTVSQKGGPQPTSPAGPGTQLGPITGEMDEADSAFLKFKQTADDSLSLTSNPTEIFVEDPYTASLRSE
 IESDGHFEAEWSLAVDAAYAKKQKREVVKRQDVLVELMQTEVHHVRTLKIMLKVYSRALQEELQFSSK
 AIGRLFPCADDLLETHSHFLARLKERRQESLEEGSDRNYVIQKIGDLLVQQFSGENGERMKEYGVFCSG
 HNEAVSHYKLLLQONKFKQNLIKKIGNFSIVRRLGVQECILLVTQRITKYPVLVERIIQNTEAGTEDYED
 LTQALNLIKDIIISQVDAKVSECEKGQRLREIAGKMDLKSSSKLKNGLTFRKEDMLQRQLHLEGLMCWKT
 SGRLKDILAILLTDVLLLLQEKDQKYVFAVSDSKPPVISLQKLI VREVANEEKAMFLISASLQGPMEYEI
 YTSSKEDRNAWMAHIQRAVESCPDEEEGPFSLPEEERKVVPEARATRLRDFQERLSMKDQLIAQSLLKQ
 IYLEMAEMGGLEDLPQPRGLFRGGDPSETLQGELILKSAMSEIEGIQSLICRQLGSANGQAEDGGSTGP
 PRRAEFTAGYDCTNSPTKNGSFKKKVSSTDP RPRDWRGPPNSPDLKLSDSIPGSSEESPQVVEAPGTE
 DPRLPTVLESELVQRIQTLSQLLLNLQAVIAHQDSYVETQRAAIQEREKQFRLQSTRGNLLEQERQRF
 EKQREERAALKLSQLRHEQQRWERERQWQHQLERAGARLQEREGERARQLRERLEQERAELEQRQAY
 QHDLERLREAQRAVERERERLELLRRLKQNTAPGALPPDTLAEAQPPSHPPSFNGEGLEGRVSMPLPSG
 VGPEYAEERPEVARRDSAPTENRLAKSDVPIQLLSATNQFQRQA AVQQIPTKLAASKGKDKGKSRGS
 QRWESSASFDLKQQLLLNKLKMGKDESTSRNRRSLSPILPGRHSPAPPDPGFPAPSPPPADSPSEGFSLK
 AGGTALLPGPPAPSPLPATPLSAKEDASKEDVIF

SGP TRRRLEQKLI SEEDLAANDILDYKDDDDKV

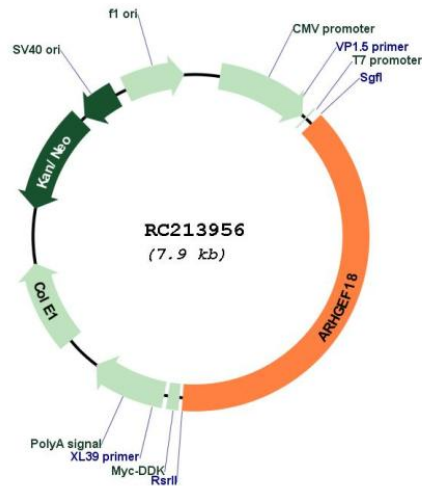
Restriction Sites:

Sgfl-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_015318

ORF Size: 3045 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:	<ol style="list-style-type: none">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:	<u>NM_015318.4</u>
RefSeq Size:	5252 bp
RefSeq ORF:	3048 bp
Locus ID:	23370
UniProt ID:	<u>Q6ZSZ5</u>
Cytogenetics:	19p13.2
Domains:	RhoGEF, PH
MW:	114.1 kDa
Gene Summary:	Rho GTPases are GTP binding proteins that regulate a wide spectrum of cellular functions. These cellular processes include cytoskeletal rearrangements, gene transcription, cell growth and motility. Activation of Rho GTPases is under the direct control of guanine nucleotide exchange factors (GEFs). The protein encoded by this gene is a guanine nucleotide exchange factor and belongs to the Rho GTPase GEF family. Family members share a common feature, a Dbl (DH) homology domain followed by a pleckstrin (PH) homology domain. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Nov 2018]