

Product datasheet for MR211463

Arhgef18 (NM_133962) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef18 (NM_133962) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arhgef18
Synonyms:	A1467246; D030053O22Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211463 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCATCTCTCAGAAAGGGGTCTCCAGCCAACACCGAGCCAGCTGGATCTGGGGTGCAGCTTGGAC
CAATTGCTGGAGACATGGATGAAGCTGACTCCGTGTTTTAAAGTTGAAGCAGACGGCAGACGACTCTCT
GTCACATCCTCGAATGCTGAGTCTGTTTTCATAGAAGACCCTTACATTGCTTCACTGAGGTGTGAG
ATCGAATCAGATGCACATGAGTTTGAGGCCGAGTCTGGAGCCTCTCTGTGGATTTAGCATATGCCAAGA
AACAGAAGAAGGAGGTGGTAAAGAGACAGGACGTCTATATGAGCTGATGCAGACAGAGGCTCATACGT
GCGCACACTAAAGATCATGCTGAAAGTATACTCCAGAGCCCTGCAGGAAGAGCTGCAATTAGTGGCCAG
GCAGTCAGCCGTCTGTTCCGTGCGCTGATGACTTACTGGACATGCACAGCCATTTCTTCCCGCCCTTA
AGGAGCGCCGGCAGGAGTTCCTAGAGGAGGGCAGTGATCGGAATTACGTCATCCAAAAGATCGGAGACGT
CCTGGTTCAGCAGTTCTCAGGAGAAACCGGGAGAGAAATGAAGGAGAAATACGCTGTGTTCTGTAGTGGC
CACAATGATGCAGTCGGTCATTACAAGCTATTGCTGCAGCAAAGCAAGAAGTTTCAAACCTTAATCAAGA
AAATTGGCAACTTTTCCATTGTGCGAAGGCTGGGAGTGCAGGAGTGCATCCTTCTGGTACACAGCGCAT
AACCAAGTACCCGGTCTTGTGGAACGCATCATCCAGAACACAGAAGCTGGCACTGAGGACTACAAGGAC
CTGAGCCAAGCCCTGAGCCTCATCAAAGACATCATCTACAAGTGGACGCCAAAGTCAGTGAGTATGAGA
AGGACCAGCGCCTCAAGGAGATTGCAGCCAAGACGGACCAGAAGTCGTCTGGCAAACCTAAAAACGGGCT
AACCTTCCGAAAGGAGGACATGCTGCAGCAGCGCCAGCTCCACCTGGAAGCGCCCTCTGTGGAAGTCC
ACCTCAGGGCGCCTGAAAGATGTCCTCGCTGCTGCTGACCGATGTGCTTTTGTGCTGCAAGAAAAAG
ATCAGAAATATGCTTTTGTCTGTGGACTCAAAGCCACCCGTCATCTCTGCAAAGCTCATCGTGAG
AGAGGTAGCCAACGAGGAGAAGGCCATGTTCTGATCAGCGCCTCCATGCAGGGGCCAGAGATGTATGAG
ATGTACACCAGCTCCAAAGAGGACAGGAACATCTGGATGGCCACATCCGCCGGCCGTGGAGAGCTGTC
CTGACGAGGAGGAGGACGTTTTTCAGTGAGGCTGAGGAGAAAAAGATAGCTGAAGCCCGCACCATGAACT
CCAGGAATTTCAAGAGCGACTGAGCCTGAAAGACCAGCTGATTGCCAGACCTTCTGGAGAAACAGCAG



[View online >](#)

ATCTACCTGGAGATGGCTCAGCTGAGTGGGCTGGAAGAGTCAGCCAGAACCAGGCCTCTCCGAGGAG
 GAGGAGACCCCTCTGAGACCCTGCGGGGGAGCAGATTCTCAGATCGGCCATGAGTGAGATTGAGGGCAT
 CCAGAGCCTGATCTGCCAGCGGCACCTGGGCAGCACCAGTAGCCAAGTGGAGGAGGGAAGTGTCTCTGCA
 GGCCTGCCTCGGCGGGCTGAGACCTTCGGGGGCTATGACAGTGTGGGAAGCCCTAGCAAGGGTGGCAGCT
 TTTAAAGGAAGGTATCCAACAGTGACCTCAGGCCCAAGACTGGCAGGGACCTGTAGCAGCCCAGACTC
 CAGGCCCCTGTGACAACAGCGCCCCAGTGGTGTCTGTAGGAATCGCCACAGGCTGTGGAGATGCCTAGC
 ACAGAGAGCCTGCCCACTGTCTTGAATTAGAGCTGGTCCACCGGTCCAGACACTGTCCGAGTTGCTTC
 TTAGTCTCCAGGCGGTACGCTCAACAGGATAGCTATGTGGAGATGCAAAGAACGGCCATCCAGGAGCG
 CGAGAAGCAGTTCGGCTGCAGTCAACAGTGGGAACCTGCTGTGGAGCAAGAGCGGCAACGCAACTTT
 GAGAAGCAGCGTGAGGAGCGCGCGGTGTGGAGAAGCTGCAAAGCCAACCTCGCCAGGAGCAGCAGCGAT
 GGGAGCGGGAGCGGGCACGCCAGCAGCAGGAAGTGGAGCTGGCCGGTGCAGGACTGCAGGAGCGAGAGGG
 CGAGGCACGCCAGATGCGCCAGCGGTGGACCAGGAGCGCACCGAGCTAGAGCGACAGCGCCAGGCTAC
 CAGCATGACCTGGAGCGTCTGCGTGAAGCCAGCAGCAGTGGACCGTGAACGTGAGCGCCTGGAGCTGC
 TGCAGGTTCAAGAAACAGAACACTGTACCAGGGGCACTGCCCCGGAGGTGCTGGCAGAGGCCAACCC
 TGCAAGCCACCCTCCCAGCTTCAATGGCGATGGGCTGGAGGGGCACTCGCCCCAGCCAAAGCACCAGGA
 ACCCAAGGGAGCGGATGCTACATGGCAGCAGGACTGACAACGTAGAGCGACCCGAGGTGGCCCGCTGGG
 ACAGTGGCCCCCTGAGAGCCGGCCAGCAAGAGCGATGTGCCATCCAGCTACTCAGTGCCACCAATCA
 GATTTCAGAGGCAGACAGCCGTGCAACAGCAGATCCCCACCAAGCTGGCCGCTCCACCAAGGGTGGCAAG
 GAGAAGGGCAGCAAGAGCAGGGGTTCCAGCGTTGGGAGAGCTCAGCGTCTTCGACCTGAAGCAGCAGC
 TGCTCCTCAGCAAGTTCATAGGCAAGGATGAGAGTGCATCACGGAACCGCGTTCAGTCCCCTCT
 GCCTGCCGCCATGGGTCTGCACCTGCCTCAGACCCTGCTTCCAGCCCCAAGCCCGGCCCCAGCTGCC
 ACACCCCCGAGGCTTCAAGTTCGGAGGCACATCACTACCACCTGTCTCCCAGCTTCTCGCTGCCAA
 CCACACCACTCGCCACCACAGATGAAGTTAGTAAGGAAGATGTCATCTTCTTC

ACGCGTACGCGGGCCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211463 protein sequence
 Red=Cloning site Green=Tags(s)

MTISQKGLQPTPSPAGSGVRLGPIAGDMDEADSVFLKQKQADDSLSLTSSNAESVFIEDPYIASLRCE
 IESDAHEFEAESWSLSVDLAYAKKQKKEVVKRQDVLVELMQTEAHHVRTLKIMLKVYSRALQEELQFSGQ
 AVSRLFCADDLLDMHSHFLARLKERRQEFLEEGSDRNYVIQKIGDVLVQQFSGETGERMKEKYAVFCSG
 HNDVGHYKLLLQSKKFQNLIKKIGNFSIVRRLGVQECILLVTQRITKYPVLVERIIQNTTEAGTEDYKD
 LSQALSLIKDIIISQVDAKVSEYEKQRLKEIAAKTDQKSSGKLKNGLTFRKEDMLQQRQLHLEGALCWKS
 TSGRLKDVAVLLTDVLLLLQEKDQKYVFAVDSKPPVISLQKLVREVANEKAMFLISASMQGPEMYE
 MYTSSKEDRNIWMAHIRRAVESCPDEEEDVFSEAEKKIAEARTMKLQEFQERLSLKDQLIAQSLLEKQQ
 IYLEMAQLSGLLESAQNRLFRGGDPSETLRGEQILRSAMSEIEGIQSLICQRHLGSTSSQVEEGSVSA
 GLPRRAETFGGYDSVGSFSKGGFRRKVSNSDLRPQDWQGPASSPDSRPCDNSAPSGCCEESQAVEMPS
 TESLPTVLELELVHRVQTLSQLLSLQAVIAQQDSYVEMQRTAIQEREKQFRLQSTRGNLLLEQERQRF
 EKQREERAGVEKLSQLRQEQQRWERERARQQELELAGARLQEREGEARQMRQLDQERTELERQRQAY
 QHDLERLREAQRAVDREERERLELLRRFKKQNTVPGALPPEVLAEAQPAHPPSFNGDGLGHSAPAKAPG
 TQGSAMLHGTGPDNVERPEVARWDSAPPESRPAKSDVPIQLLSATNIIQRQTAVQQIPTKLAASKGGK
 EKGSKSRGSQRWESSASFDLKQQLLLSKFIGKDESASRNRRSLSPVLPAAHGSAPASDPCFPAPSPAPAA
 TPPEAFKFGGTSPPVSPASSLPTTPLATTDEVSKEVDVIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_133962

ORF Size: 3066 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_133962.3](#), [NP_598723.3](#)

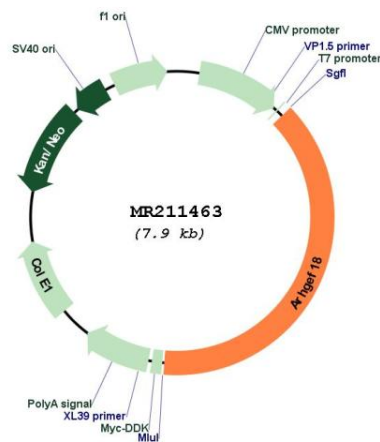
RefSeq Size: 5300 bp

RefSeq ORF: 3066 bp

Locus ID: 102098
UniProt ID: [Q6P9R4](#)
Cytogenetics: 8 A1.1
MW: 114.3 kDa

Gene Summary: Acts as guanine nucleotide exchange factor (GEF) for RhoA GTPases. May play a role in actin cytoskeleton reorganization in different tissues since its activation induces formation of actin stress fibers. Also acts as a GEF for RAC1, inducing production of reactive oxygen species (ROS). Does not act as a GEF for CDC42. The G protein beta-gamma (Gbetagamma) subunits of heterotrimeric G proteins act as activators, explaining the integrated effects of LPA and other G-protein coupled receptor agonists on actin stress fiber formation, cell shape change and ROS production. Required for EPB41L4B-mediated regulation of the circumferential actomyosin belt in epithelial cells.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211463