

Product datasheet for **MR211176**

Arhgef1 (NM_001130152) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef1 (NM_001130152) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arhgef1
Synonyms:	Lbcl2; Lsc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR211176 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAGAAGTCGCCGGAGGGCGGCCAGGGCCTCCCGGTCTGGCCTGGTGTCCATCATCATCGGGG
 CGGAGGATGAGGATTTTGAGAACGAGCTGGAGCGAACTCAGAAGATCAAAACAGCCAGTCCAGAGCCT
 AGAGCAAGTGAAGCGCCGCCCTGCCACCTCATGGCCCTCCTGCAGCATGTGGCCCTGCAGTTCGAGCCA
 GGACCACTGCTCTGCTGCCTGCATGCAGACATGCTGAGCTCTCTGGGCCCAAAGAAGCCAAGAAGGCCCT
 TCCTTGACTTCTATCACAGTTTCTGGAGAAGACTGCGGTTCTACGGGTGCCGGTCCCTCCAGTGTGCG
 TTTTGAACCTGATCGTACTCGACCTGATCTGATCTCTGAGGATGTCCAGAGGGGTTTCATAACAAGAGGTG
 GTGCAGAGCCAGCAGGCAGCCGTGAGCCGTGAGTACAGGACTTCGCTCTAAGCGGCTCATGGGCATGA
 CGCCCTGGGAGCAGGAAGTGAAGCCGTGAGCCCTGGATTGGGAAAGACCGAGGCAACTATGAGGCCCG
 GGAGCGCATGTTGCGGAGCGGTGCTGTCCACCTGGAGGAGACCCAGCATAACCATCTCTACAGATGAA
 GAGAAAAGTGTCTGTGGTCACTGCCATCAGCCTGTATATGCGCCACCTTGGAGTCCGGACCAAGAGTG
 GGGACAAGAAGTCGGGAAGGAATCTTCCGAAAAAGGTGATGGGAATCGGAGGTCAGACGAACCCCC
 AAAGACAAAGAAAGGGCTGAGCAGTATCCTAGATCCTGCACGTTGGAACCGGGGAGAGCCATCCGCTCCA
 GATTGTGACATCTAAAGGTCGAGGCTGATGCAGAGAAGCCAGGCCCTGCAGACCGGAAGGGAGGCCCTGG
 GTATGTCTTCTCGGGACAGGACTGTTGGGACTCCTGGACAGGACAACCCAGGAGTCTCCCTGCACCTCT
 GTCTACAGACAGCGTCACTCCCGGAACAGCGGTGGATACCCCGCAGGAGCCAGGGGATACACCCCCA
 CAGGGCCCTACCAGCCTGGAGCCCTGGCGCCCCAGAGAGCACAGAGGACAATGGCGAGACTGAGAGCC
 CTGAGCCCGGAGATGATGGGAGCCAGGACGGTCAGGCCTGGAACCTGGAACCAAGAAGCACTCTGGGTG
 GAGGGAACTCGTCCCCCAGACACCCTGCTCAGTCTGCCAAGAGCCAAGTGAAGCGGCAAGAGGTCATC
 AGCGAGCTGCTCGTACTGAGGCAGCTCAGTGCAGTGTACGGTACTGCATGACCTCTTCTACCAGC
 CCATGGCGGATGGAGGCTTCTTCCCTCTGGACGAGCTGCAGAACATCTTCCCGAGCCTGGATGAGCTCAT
 CGAGGTGCACTCCCTGTTCTCGATCGTTGATGAAGCGGAGACAAGAGAGTGGTACCTCATTGAGGAG
 ATCGGCGATGTGCTACTGGCCCGGTTGATGGTGTGAGGGCTCATGGTCCAGAAGATCTCTCCCGCT
 TCTGCAGCCGCGAGTCTGCTCTAGAGCAGCTCAAAGCCAAGCAGCGCAAGGAGCCTCGGTTCTGTGC
 CTTTGTGACGAAAGCTGAGAGCCCGGAGATGCCGGCGCTACAGTTAAAGGACATGATCCCACTGAG
 ATGCAGCGACTGACCAAGTACCACTGCTGCTACAGAGCATCGGGCAGAACACAGAGGAGTCTACAGAAC
 GAGGGAAAGTGGAGCTTGCAGCTGAGTGTGCCGGGAGATTCTGCACCATGTCAATCAAGCCGTCGGTGA
 CATGGAGGACCTGCTGCGGCTCAAGGATTACCAGCGGCGCCTGGACTTGACTCACCTACGGCAGAGCAGT
 GACCCTATGCTGAGCGAGTTCAAGAACCTGGACATCACTAAGAAGAAGTTGGTCCATGAAGGCCCCCTCA
 CGTGGCGAGTGACCAAAGACAAAGCTATAGAAGTGCACGTGCTCTTGTGGACGACCTGTGCTGCTGCT
 CCAGCGCCAGGACGAGAGGCTGTGCTCAAGTCCCACAGCCGGACGCTGACACCTACCCCGATGGCAAG
 ACCATGCTGCGGCCGGTGTCCGGCTCACCTCTGCCATGACCCGAGAGGTGGCCACTGATCAAAAGCTT
 TCTACGTCATTTTTACCTGGGACCAGGAGGCCAGATATATGAGCTGGTGGCACAGACATCTTCGGAACG
 CAAAAAAGTGTAACTCATCACTGAGACTGCTGGATCCCTGAAGTCCCTGCCCTGCCCTGCCCTCCCGCCTC
 AAACCCCGGCCAGCCAAAGCAGCATCCGAGAACCCTGCTCAGCAGCTCTGAGAATGGCACTGGAGGCG
 CAGAGATGGTCCAGCTGATGCCAGGACAGAGCGGCTCCTCAATGACCTCCTGCCCTTCTGCAGACCAGG
 CCCAGAGGGCCAGCTTGTGCCACAGCCCTTCAAGAAAGTACTGTCCCTGAAGCAGATCCTGCTAAGCACT
 GAGGAAGACAGTGGAGCGGGGCTCCCGCGATGGGATGGGGTGCCTGGTGGTGGTGGTGGTGGTGGTGGT
 TGCACACCCAGGAGATTGAGGAAAAGTGTCTAGCTTAGAGGTGGCCATCAGACAAGTGGAGGAGTTGGA
 AGAGGAATTTTGTGCTAAGACCCCTCTGTCCAGCTTGGGGGACTGTGTCCCAACCTGGCTGCA
 CCTGAACGCTCTGCTCAGACAGGCTTTCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

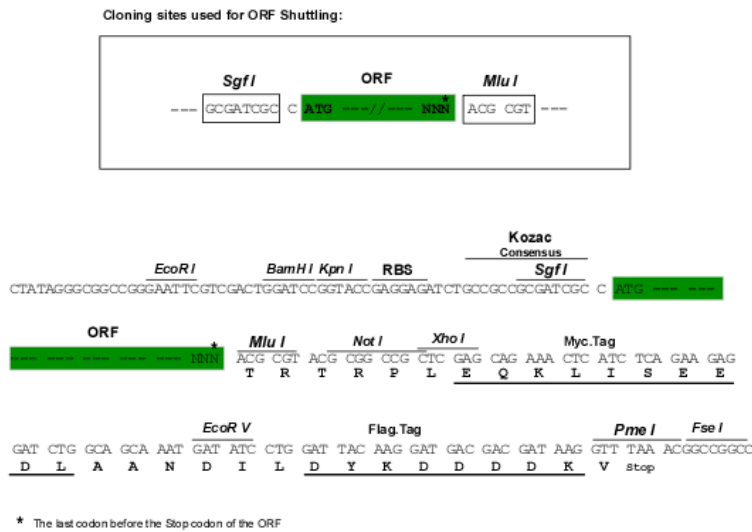
Protein Sequence: >MR211176 protein sequence
 Red=Cloning site Green=Tags(s)

MGEVAGGAAPGPPRSLVSIIGAEDDFENELEANSQNSQFQSLEQVKRRPAHLMALLQHVALQFEP
 GPLLCCCLHADMLSSLGPKEAKKAFLEDFYHSFLEKTAVLRVPPPSVAFELDRTRPDLISEDVQRRFIQEV
 VQSQAQAVSRQLEDFRSKRLMGMPWEQELSLLEPWIGKDRGNYEARERHVAERLLSHLEETQHTISTDE
 EKSAAVVTAISLYMRHLGVRTKSGDKKSGRNFFRKKVMGNRRSDEPPKTKKGLSSILDPARWNRGEP
 DCRHLKVEADAIEKPGADRKGGMGSSRDRTVGTGQDNPGVSLHPLSTDSVDSREPVDTPQEPGDTTP
 QGPTSLEPLAPPESTEDNGETESPEPGDDEPGRSGLELEPEEPPGWRELVPDPTLLSLPKSQVKRQEV
 SELLVTEAAHVRLRVLHDLFYQPMADGGFFPLDELQNIIFPSLDELIEVHSLFLDRLMKRRQESGYLIEE
 IGDVLLARFDGAEGSWFQKISSRFCSRQSFALQLKAKQRKEPRFCFVQEAESRPRCRRLLQKDMIPTE
 MQRLLKYPLLLQSIGQNTTEESTERGKVELAAECCREILHHVNQAVRDMEDLLRLKDYQRRDLTHLRQSS
 DPMLSEFKNLDIKKKLVHEGPLTWRVTKDKAIEVHVLDDLLLLLRQDERLLKSHSRTLTPTPDGK
 TMLRPVRLTTSAMTREVATDHKAFYVIFTWQEAQIYELVAQTSSEKKNWCNLIETAGSLKVPAPASRL
 KPRPSPSSIREPLLSSSENGTGAEMAPADARTERLLNDLLPFCRPGPEGQLAATALQKVLQKILLST
 EEDSGAGPPRDGDGVPGRAPGPVHTQEIEENLLSLEVAIRQLEEELEEFCLRLPILLSQLGGTLPNLA
 PERSAQTGLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

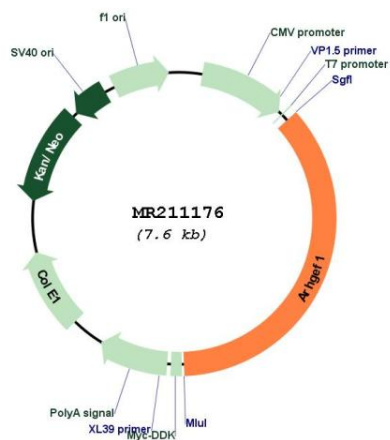


ACCN: NM_001130152

ORF Size: 2763 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:	NM_001130152.1 , NP_001123624.1
RefSeq Size:	3282 bp
RefSeq ORF:	2763 bp
Locus ID:	16801
UniProt ID:	Q61210
Cytogenetics:	7 A3
MW:	102.8 kDa
Gene Summary:	Seems to play a role in the regulation of RhoA GTPase by guanine nucleotide-binding alpha-12 (GNA12) and alpha-13 (GNA13) subunits. Acts as GTPase-activating protein (GAP) for GNA12 and GNA13, and as guanine nucleotide exchange factor (GEF) for RhoA GTPase. Activated G alpha 13/GNA13 stimulates the RhoGEF activity through interaction with the RGS-like domain. This GEF activity is inhibited by binding to activated GNA12. Mediates angiotensin-2-induced RhoA activation. Isoform 3 and isoform 4 do not homooligomerize and show an enhanced RhoGEF activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211176