

Product datasheet for **MR221833**

Arhgef1 (NM_008488) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef1 (NM_008488) 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:

>MR221833 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAGAAGTCGCCGGAGGGCGGCCAGGGCCTCCCGGTCTGGCCTGGTGTCCATCATCATCGGGG
 CGGAGGATGAGGATTTTGAAGACGAGCTGGAGGCGAACTCAGAAGATCAAAACAGCCAGTTCAGAGCCT
 AGAGCAAGTGAAGCGCCGCCCTGCCACCTCATGGCCCTCCTGCAGCATGTGGCCCTGCAGTTCAGGCCA
 GGACCACTGCTCTGCTGCCTGCATGCAGACATGCTGAGCTCTCTGGGCCCAAAGAAGCCAAGAAGGCCCT
 TCCTTGACTTCTATCACAGTTTCTGGAGAAGACTGCGGTTCTACGGGTGCCGGTCCCTCCAGTGTGCG
 TTTTGAACCTTGATCGTACTCGACCTGATCTGATCTCTGAGGATGTCCAGAGGCGGTTACATAAGAGGTG
 GTGCAGAGCCAGCAGGCAGCCGTGAGCCGTGAGTACAGGACTCCGCTCCAAGCGGCTCATGGGCATGA
 CGCCCTGGGAGCAGGAAGTGAAGCCTGCTGGAGCCCTGGATTGGGAAAGACCGAGGCAACTATGAGCCCCG
 GGAGCGCATGTTGCGGAGCGGTGCTGTCCACCTGGAGGAGACCCAGCATAACCATCTCTACAGATGAA
 GAGAAAAGTGTCTGTGGTCACTGCCATCAGCCTGTATATGCGCCACCTTGGAGTCCGGACCAAGAGTG
 GGGACAAGAAGTCGGGAAGGAATCTTCCGAAAAAGGTGATGGGAATCGGAGGTCAGACGAACCCCC
 AAAGACAAAGAAAGGGCTGAGCAGTATCCTAGATCCTGCACGTTGGAACCGGGGAGAGCCATCCGCTCCA
 GATTGTGACATCTAAAGGTCGAGGCTGATGAGAAGCCAGGCCCTGCAGACCGGAAGGGAGGCTGGGTA
 TGTCTTTCGGGACAGGACTGTTGGGACTCCTGGACAGGACAACCCAGGAGTCTCCCTGCACCCTGTGC
 TACAGACAGCGTCACTCCCGGAAACAGGCGTGGATACCCCGCAGGAGCCAGGGGATACACCCCAAG
 GGCCCTACCAGCCTGGAGCCCTGGCGCCCCAGAGAGCACAGAGGACAATGGCGAGACTGAGAGCCCTG
 AGCCCGGAGATGATGGGAGCCAGGAGGTCAGGCTGGAACCTGGAACCAAGAACTCCTGGGCGGAGC
 GGAACCTGTCGCCAGACACCCTGCTCAGTCTGCCAAGAGCCAAGTGAAGCGGCAAGAGGTCATCAGC
 GAGCTGCTCGTCACTGAGGCAGCTCACGTGCGCATGCTACGGGTACTGCATGACCTTTCTACCAGCCCA
 TGGCGGATGGAGGCTTCTCCCTCTGGACGAGCTGCAGAACATCTTCCCGAGCCTGGATGAGCTCATCGA
 GGTGCACTCCCTGTTCTCGATCGTTGATGAAGCGGAGACAAGAGAGTGGCTACCTCATTGAGGAGATC
 GGCGATGTGCTACTGGCCGGTTCGATGGTGTGAGGGCTCATGGTTCCAGAAGATCTCCTCCCGTTCT
 GCAGCCCGCAGTCTGCTCTAGAGCAGCTCAAAGCCAAGCAGCGCAAGGAGCCTCGGTTCTGTGCTT
 TGTGCAGGAAGCTGAGAGCCGCCGAGATGCCGGCGCCTACAGTTAAAGGACATGATCCCACTGAGATG
 CAGCGACTGACCAAGTACCACTGCTGCTACAGAGCATCGGGCAGAACACAGAGGAGTCTACAGAACGAG
 GGAAAGTGGAGCTTGCAGCTGAGTGTGCTGCCGGGAGATTCTGCACCATGTCAATCAAGCCGTCCTGTGACAT
 GGAGGACCTGCTGCGGCTCAAGGATTACCAGCGGCGCCTGGACTTCACTACCTACGGCAGAGCAGTGC
 CCTATGCTGAGCGAGTTCAAGAACCTGGACATCACTAAGAAGAAGTTGGTCCATGAAGGCCCCCTCACGT
 GGCGAGTGACCAAGACAAGCTATAGAAGTGCACGTGCTCTTGTGGACGACCTGCTGTGCTGTCTCCA
 GCGCCAGGACGAGAGGCTGCTGCTCAAGTCCCACAGCCGACGCTGACACCTACCCCGATGGCAAGACC
 ATGCTGCGGCCGGTGTCCGGCTCACCTTGCCATGACCCGAGAGGTGGCCACTGATCACAAAGCTTTCT
 ACGTCATTTTTACCTGGGACCAGGAGGCCAGATATATGAGCTGGTGGCAGACATCTTCGGAACGCAA
 AAACCTGGTGAACCTCATCACTGAGACTGCTGGATCCCTGAAGGTCCCTGCCCTGCCTCCCGCTCAA
 CCCCAGCCAGCCCAAGCAGCATCCGAGAACCCTGCTCAGCAGCTCTGAGAAATGGCACTGGAGGCGCAG
 AGATGGTCCAGCTGATGCCAGGACAGAGCGGCTCCTCAATGACCTCCTGCCCTTCTGCAGACCAGGCC
 AGAGGGCCAGCTTGTGCCACAGCCCTCAGAAAGTACTGTCCTGAAGCAGATCCTGCTAAGCACTGAG
 GAAGACAGTGGAGCGGGCCTCCCGCGATGGGGATGGGGTGCCTGGTGGTAGGGCCCCCGCCAGTGC
 ACACCCAGGAGATTGAGGAAAATTGCTTAGCTTAGAGGTGGCCATCAGACAACCTGGAGGAGTTGGAAGA
 GGAATTTGTGCTCAAGACCCCTCTGTCCAGCTTGGGGGACTCTGTCCCCAACCTGGCTGCACCT
 GAACGCTCTGCTCAGACAGGCCTTTCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >MR221833 protein sequence
 Red=Cloning site Green=Tags(s)

MGEVAGGAAPGPPRSLVSIIGAEDDFENELEANSQNSQFQSLEQVKRRPAHLMALLQHVALQFEP
 GPLLCCCLHADMLSSLGPKEAKKAFLEDFYHSFLEKTAFLRVPPPSVAFELDRTRPDLISEDVQRRFIQEV
 VQSQQAAVSRQLEDFRSKRLMGMPWEQELSLLEPWIGKDRGNYEARERHVAERLLSHLEETQHTISTDE
 EKSAAVVTAISLYMRHLGVRTKSGDKKSGRNFFRKKVMGNRRSDEPPKTKKGLSSILDPARWNRGEP
 DCRHLKVEADEKPGPADRKGGGLGMSRDRTVGTGQDNPVSLHPLSTDSVDSREPGVDTPQEPGDTPPQ
 GPTSLEPLAPPESTEDNGETESPEPGDDGEPGRSGLELEPEEPPGWRELVPPDTLLSLPKSQVKRQEVIS
 ELLVTEAAHVRMLRVLHDLFYQPMADGGFFPLDELQNIFFPSLDELIEVHSLFLDRLMKRRQESGYLIEEI
 GDVLLARFDGAEGSWFQKISSRFCSRQSFALQLKAKQRKEPRFCFVQEAESRPRCRLQLKDMIPTM
 QRLTKYPLLLQSIGQNTTEESTERGKVELAAECCREILHHVNQAVRDMEDLLRLKDYQRRLDLTHLRQSSD
 PMLSEFKNLDITKKKLVHEGPLTWRVTKDKAIEVHVLLDLDLQLLQRQDERLLKSHSRTLTPDPGKT
 MLRPVLRLLTSAMTREVATDHKAFYVIFTWQEAQIYELVAQTSERKNWCNLITETAGSLKVPAPASRLK
 PRPSPSSIREPLLSSSENGTGAEMAPADARTERLLNDLLPFCRPGPEGQLAATALQKVLQKILLSTE
 EDGAGAPPRDGDGVPGGRAPGVHTQEIEENLLSLEVAIRQLEEELEEEFCRLRPLLSQLGGTLPNLAAP
 ERSATGLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

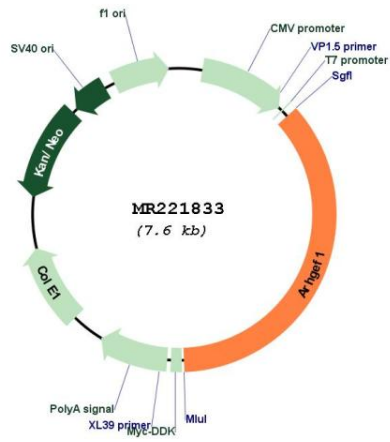


ACCN: NM_008488

ORF Size: 2757 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_008488.2 , NP_032514.1
RefSeq Size:	3270 bp
RefSeq ORF:	2760 bp
Locus ID:	16801
UniProt ID:	Q61210
Cytogenetics:	7 A3
MW:	102.7 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 MR221833