

Product datasheet for **MG221833**

Arhgef1 (NM_008488) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef1 (NM_008488) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Arhgef1
Synonyms:	Lbcl2; Lsc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG221833 representing NM_008488
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAGAAGTCGCCGGAGGGCGGCCAGGGCCTCCCGGTCTGGCCTGGTGTCCATCATCATCGGGG
 CGGAGGATGAGGATTTTGAAGACGAGCTGGAGGCGAACTCAGAAGATCAAAACAGCCAGTTCAGAGCCT
 AGAGCAAGTGAAGCGCCGCCCTGCCACCTCATGGCCCTCCTGCAGCATGTGGCCCTGCAGTTCGAGCCA
 GGACCACTGCTCTGCTGCCTGCATGCAGACATGCTGAGCTCTCTGGGCCCAAAGAAGCCAAGAAGGCCCT
 TCCTTGACTTCTATCACAGTTTCTGGAGAAGACTGCGGTTCTACGGGTGCCGGTCCCTCCAGTGTGCG
 TTTTGAACCTGATCGTACTCGACCTGATCTGATCTCTGAGGATGTCCAGAGGCGGTTACATAAGAGGTG
 GTGCAGAGCCAGCAGGCAGCCGTGAGCCGTGAGTACAGGACTTCGCTCTAAGCGGCTCATGGGCATGA
 CGCCCTGGGAGCAGGAAGTGAAGCCGTGAGCCCTGGATTGGGAAAGACCGAGGCAACTATGAGGCCCG
 GGAGCGCATGTTGCGGAGCGGTGCTGTCCACCTGGAGGAGACCCAGCATACCATCTCTACAGATGAA
 GAGAAAAGTGTCTGTGGTCACTGCCATCAGCCTGTATATGCGCCACCTTGGAGTCCGGACCAAGAGTG
 GGGACAAGAAGTCGGGAAGGAATCTTCCGAAAAAGGTGATGGGAATCGGAGGTGACACGAACCCCC
 AAAGACAAAGAAAGGGCTGAGCAGTATCCTAGATCCTGCACGTTGGAACCGGGGAGAGCCATCCGCTCCA
 GATTGTGACATCTAAAGGTCGAGGCTGATGCAGAGAAGCCAGGCCCTGCAGACCGGAAGGGAGGCTGG
 GTATGTCTTCTCGGGACAGGACTGTTGGGACTCCTGGACAGGACAACCCAGGAGTCTCCCTGCACCTCT
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 CAGGGCCCTACCAGCCTGGAGCCCTGGCGCCCCAGAGAGCACAGAGGACAATGGCAGACTGAGAGCC
 CTGAGCCCGGAGATGATGGGAGCCAGGACGGTCAAGCCTGGAAGTGAACCAAGAAGCACTCTGGGTG
 GAGGGAACTCGTGCCCCAGACACCCTGCTCAGTCTGCCAAGAGCCAAGTGAAGCGGCAAGAGGTCATC
 AGCGAGTGTCTGACTGAGGCAGCTCAGTGCATGCTACGGTACTGCATGACCTTCTTACCAGC
 CCATGGCGGATGGAGGCTTCTCCCTCTGGACGAGCTGCAGAACATCTTCCCGAGCCTGGATGAGCTCAT
 CGAGGTGCACTCCCTGTTCTCGATCGTTGATGAAGCGGAGACAAGAGAGTGGTACCTCATTGAGGAG
 ATCGGCGATGTGCTACTGGCCCGTTCGATGGTGTGAGGGCTCATGGTCCAGAAGATCTCTCCCGCT
 TCTGCAGCCGAGTCTGCTCTAGAGCAGCTCAAAGCCAAGCAGCGCAAGGAGCCTCGGTTCTGTGC
 CTTTGTGACGAAAGTGAAGCCCGGAGATGCCGGCGCTACAGTTAAAGGACATGATCCCACTGAG
 ATGACCGACTGACCAAGTACCACTGCTGCTACAGAGCATCGGGCAGAACACAGAGGAGTCTACAGAAC
 GAGGGAAAGTGGAGCTTGCAGCTGAGTGTGCCGGGAGATTCTGCACCATGTCAATCAAGCCGTCGGTGA
 CATGGAGGACCTGCTGCGGCTCAAGGATTACCAGCGGCGCCTGGACTTGACTCACCTACGGCAGAGCAGT
 GACCCTATGCTGAGCGAGTTCAAGAACCTGGACATCACTAAGAAGAAGTTGGTCCATGAAGGCCCCCTCA
 CGTGGCGAGTGACCAAAGACAAAGCTATAGAAGTGCACGTGCTCTTGTGGACGACCTGCTGCTGCT
 CCAGCGCCAGGACGAGAGGCTGCTGCTCAAGTCCCACAGCCGGACGCTGACACCTACCCCGATGGCAAG
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 TCTACGTCATTTTTACCTGGGACCAGGAGGCCAGATATATGAGCTGGTGGCACAGACATCTTCGGAACG
 CAAAAACTGGTGAACCTCATCACTGAGACTGCTGGATCCCTGAAGTCCCTGCCCTGCCCTCCCGCCTC
 AAACCCCGGCCAGCCAAAGCAGCATCCGAGAACCCTGCTCAGCAGCTCTGAGAATGGCACTGGAGGCG
 CAGAGATGGTCCAGCTGATGCCAGGACAGAGCGGCTCCTCAATGACCTCCTGCCCTTCTGCAGACCAGG
 CCCAGAGGGCCAGCTTGTGCCACAGCCCTCAGAAAAGTACTGTCCCTGAAGCAGATCCTGCTAAGCACT
 GAGGAAGACAGTGGAGCGGGGCTCCCGCGATGGGATGGGGTGCCTGGTGGTAGGGCCCCCGGCCAG
 TGCACACCCAGGAGATTGAGGAAAAGTGTCTAGCTTAGAGGTGGCCATCAGACAAGTGGAGGAGTTGGA
 AGAGGAATTTTGTGCTAAGACCCCTCTGTCCAGCTTGGGGGACTCTGTCCCCAACCTGGCTGCA
 CCTGAACGCTCTGCTCAGACAGGCTTTCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG221833 representing NM_008488
 Red=Cloning site Green=Tags(s)

MGEVAGGAAPGPPRSLVSIIGAEDDFENELEANSQDQNSQFQSLEQVKRRPAHLMALLQHVALQFEP
 GPLLCCCLHADMLSSLGPKEAKKAFLEDFYHSFLEKTAFLRVPVPPSVAFELDRTRPDLISEDVQRRFIQEV
 VQSQQAAVSRQLEDFRSKRLMGMPWEQELSLLEPWIGKDRGNYEARERHVAERLLSHLEETQHTISTDE
 EKSAAVVTAISLYMRHLGVRTKSGDKKSGRNFFRKKVMGNRRSDEPPKTKKGLSSILDPARWNRGEP
 DCRHLKVEADAEPKGPADRKGGGLMSSRDRTVGTGQDNPVSLHPLSTDSVDSREPGVDTPQEPGDTTP
 QGPTSLEPLAPPESTEDNGETESPEPGDDEPGRSGLELEPEEPPGWRELVPDPTLLSLPKSQVKRQEV
 SELLVTEAAHVRLRVLHDLFYQPMADGGFFPLDELQNIIFPSLDELIEVHSLFLDRLMKRRQESGYLIEE
 IGDVLLARFDGAEGSWFQKISSRFCSRQSFALQLKAKQRKEPRFCFVQEAESRPRCRRLLQKDMIPTE
 MQRLLKYPLLLQSIGQNTTEESTERGKVELAAECCREILHHVNQAVRDMEDLLRLKDYQRRLLDLTHLRQSS
 DPMLSEFNLDITKTKLVHEGPTWRVTKDKAIEVHVLDDLLLLLRQDERLLKSHSRTLTPTPDGK
 TMLRPVRLTTSAMTREVATDHKAFYVIFTWQEAQIYELVAQTSERKNWCNLIETAGSLKVPAPASRL
 KPRPSPSSIREPLLSSSENGTGAEMAPADARTERLLNDLLPFCRPGPEGQLAATALQKVLQKILLST
 EEDSGAGPPRDGDGVPGRAPGPVHTQEIEENLLSLEVAIRQLEEEEFCLRLPILLSQLGGTLPNLA
 PERSAQTGLS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

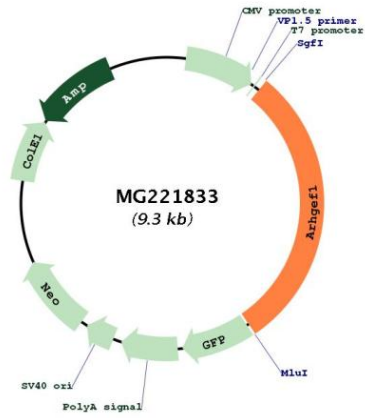
Cloning Scheme:



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
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 MG221833