

## Product datasheet for **MR221832**

### Arhgef1 (NM\_001130153) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef1 (NM_001130153) 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)



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**ORF Nucleotide Sequence:**

>MR221832 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGAGAAGTCGCCGGAGGGCGGCCAGGGCCTCCCGGTCTGGCCTGGTGTCCATCATCATCGGGG  
 CGGAGGATGAGGATTTTGAGAACGAGCTGGAGCGAACTCAGAAGATCAAAACAGCCAGTCCAGAGCCT  
 AGAGCAAGTGAAGCGCCGCCCTGCCACCTCATGGCCCTCCTGCAGCATGTGGCCCTGCAGTTCGAGCCA  
 GGACCACTGCTCTGCTGCCTGCATGCAGACATGCTGAGCTCTCTGGGCCCAAAGAAGCCAAGAAGGCCCT  
 TCCTTGACTTCTATCACAGTTTCTGGAGAAGACTGCGGTTCTACGGGTGCCGGTCCCTCCAGTGTGCG  
 TTTTGAACCTGATCGTACTCGACCTGATCTGATCTCTGAGGATGTCCAGAGGGGTTTCATAACAAGAGGTG  
 GTGCAGAGCCAGCAGGCAGCCGTGAGCCGTGAGTACAGGACTTCGCTCTAAGCGGCTCATGGGCATGA  
 CGCCCTGGGAGCAGGAAGTGAAGCCTGCTGGAGCCCTGGATTGGGAAAGACCGAGGCAACTATGAGGCCCG  
 GGAGCGCATGTTGCGGAGCGGTGCTGTCCACCTGGAGGAGACCCAGCATAACCATCTCTACAGATGAA  
 GAGAAAAGTGTCTGTGGTCACTGCCATCAGCCTGTATATGCGCCACCTTGGAGTCCGGACCAAGAGTG  
 GGGACAAGAAGTCGGGAAGGAATCTTCCGAAAAAGGTGATGGGAATCGGAGGTGACGACGAACCCCC  
 AAAGACAAAGAAAGGGCTGAGCAGTATCCTAGATCCTGCACGTTGGAACCGGGGAGAGCCATCCGCTCCA  
 GATTGTGACATCTAAAGGTCGAGGCTGATGCAGAGAAGCCAGGCCCTGCAGACCGGAAGGGAGGCCCTGG  
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 CAGGGCCCTACCAGCCTGGAGCCCTGGCGCCCCAGAGAGCACAGAGGACAATGGCGAGACTGAGAGCC  
 CTGAGCCCGGAGATGATGGGAGCCAGGACGGTCAAGCCTGGAACCTGGAACCAAGAAGCACTCTGGGTG  
 GAGGGAACTCGTCCCCAGACACCCTGCTCAGTCTGCCAAGAGCCAAGTGAAGCGGCAAGAGGTCATC  
 AGCGAGTGTCTGACTGAGGCAGCTCAGTGCATGCTACGGTACTGCATGACCTTCTTACCAGC  
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 CGAGGTGCACTCCCTGTTCTCGATCGTTGATGAAGCGGAGACAAGAGAGTGGTACCTCATTGAGGAG  
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 TCTGCAGCCGAGTCTGCTCTAGAGCAGCTCAAAGCCAAGCAGCGCAAGGAGCCTCGGTTCTGTGC  
 CTTTGTGACGAAAGTGAAGCCCGGAGATGCCGGCGCTACAGTTAAAGGACATGATCCCACTGAG  
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 GAGGGAAAGTGGAGCTTGCAGCTGAGTGTGCCGGGAGATTCTGCACCATGTCAATCAAGCCGTCGGTGA  
 CATGGAGGACCTGCTGCGGCTCAAGGATTACCAGCGGCGCCTGGACTTGACTCACCTACGGCAGAGCAGT  
 GACCCTATGCTGAGCGAGTTCAAGAACCTGGACATCACTAAGAAGAAGTTGGTCCATGAAGGCCCCCTCA  
 CGTGGCGAGTGACCAAAGACAAAGCTATAGAAGTGCACGTGCTCTTGTGGACGACCTGTGCTGCTGCT  
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 ACCATGCTGCGGCCGGTCTCCGGCTCACCTCTGCCATGACCCGAGAGGTGGCCACTGATCAAAAGCTT  
 TCTACGTATTTTTACCTGGGACCAGGAGGCCAGATATATGAGCTGGTGGCACAGACATCTTCGGAACG  
 CAAAAAAGTGTAACTCATCACTGAGACTGCTGGATCCCTGAAGTCCCTGCCCTGCCCTCCCGCCTC  
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 GAGGAAGACAGTGGAGCGGGGCTCCCGCGATGGGATGGGGTGCCTGGTGGTAGGGCCCCCGGCCAG  
 TGCACACCCAGGAGATTGAGGAAAAGTGTAGCTTAGAGGTGGCCATCAGACAAGTGGAGGAGTTGGA  
 AGAGGAATTTTGTGCTAAGACCCCTCTGTCCAGCTTGGGGGACTGTGCCCCAACCTGGCTGCA  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAAGTTTAA

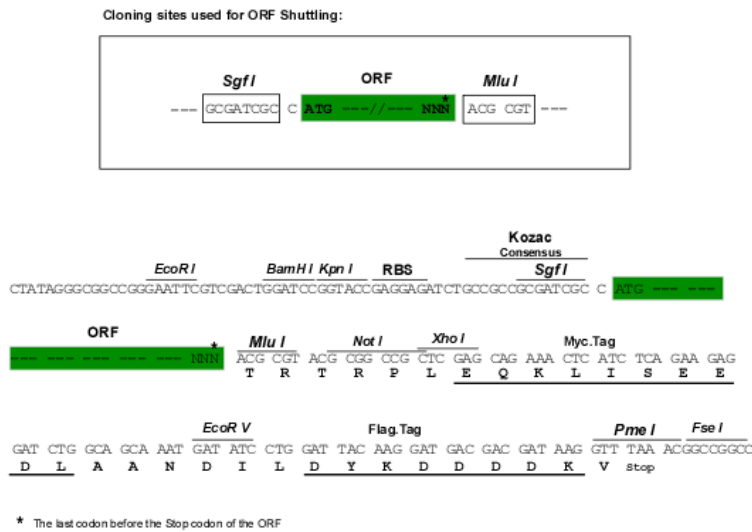
**Protein Sequence:** >MR221832 protein sequence  
 Red=Cloning site Green=Tags(s)

MGEVAGGAAPGPPRSLVSIIGAEDDFENELEANSQNSQFQSLEQVKRRPAHLMALLQHVALQFEP  
 GPLLCCCLHADMLSSLGPKEAKKAFLEDFYHSFLEKTAVLRVPPPSVAFELDRTRPDLISEDVQRRFIQEV  
 VQSQAQAVSRQLEDFRSKRLMGMPWEQELSLLEPWIGKDRGNYEARERHVAERLLSHLEETQHTISTDE  
 EKSAAVVTAISLYMRHLGVRTKSGDKKSGRNFFRKKVMGNRRSDEPPKTKKGLSSILDPARWNRGEP  
 DCRHLKVEADAIEKPGPADRKGGMGSSRDRTVGTGQDNPGVSLHPLSTDSVDSREPVDTPQEPGDTTP  
 QGPTSLEPLAPPESTEDNGETESPEPGDDEPGRSGLELEPEEPPGWRELVPDPTLLSLPKSQVKRQEV  
 SELLVTEAAHVRLRVLHDLFYQPMADGGFFPLDELQNIIFPSLDELIEVHSLFLDRLMKRRQESGYLIEE  
 IGDVLLARFDGAEGSWFQKISSRFCSRQSFALQLKAKQRKEPRFCFVQEAESRPRCRRLLQKDMIPTE  
 MQRLLKYPLLLQSIGQNTTEESTERGKVELAAECCREILHHVNQAVRDMEDLLRLKDYQRRLLDLTLRQSS  
 DPMLSEFNLDITKTKLVHEGPTWRVTKDKAIEVHVLDDLLLLLRQDERLLKSHSRTLTPTPDGK  
 TMLRPVRLTTSAMTREVATDHKAFYVIFTWQEAQIYELVAQTSERKNWCNLIETAGSLKVPAPASRL  
 KPRPSPSSIREPLLSSSENGTGAEMAPADARTERLLNDLLPFCRPGPEGQLAATALQKVLQKILLST  
 EEDSGAGPPRDGDGVPGRAPGPVHTQEIEENLLSLEVAIRQLEEEEFCLRLPILLSQLGGTLPNLA  
 PERSAQTLGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

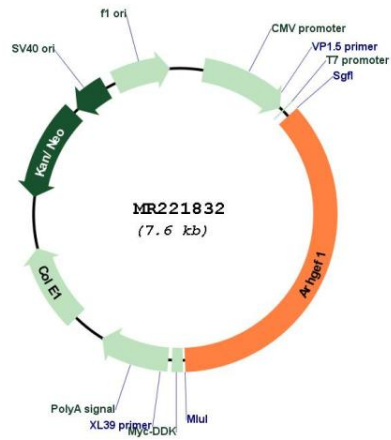


**ACCN:** NM\_001130153

**ORF Size:** 2763 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001130153.1</a> , <a href="#">NP_001123625.1</a>
<b>RefSeq Size:</b>	3273 bp
<b>RefSeq ORF:</b>	2763 bp
<b>Locus ID:</b>	16801
<b>UniProt ID:</b>	<a href="#">Q61210</a>
<b>Cytogenetics:</b>	7 A3
<b>MW:</b>	102.8 kDa
<b>Gene Summary:</b>	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 MR221832