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Product datasheet for MG221831

Arhgef1 (NM_001130151) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef1 (NM_001130151) 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)

ORF Nucleotide Sequence:

>MG221831 representing NM_001130151
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAGAAGTCGCCGGAGGGGCGGCCCCAGGGCCTCCCCGGTCTGGCCTGGTGTCCATCATCATCGGGG
CGGAGGATGAGGATTTTGAGAACGAGCTGGAGGCGAACTCAGAAGATCAAAACAGCCAGTTCCAGAGCCT
AGAGCAAGTGAAGCGCCGCCCTGCCCACCTCATGGCCCTCCTGCAGCATGTGGCCCTGCAGTTCGAGCCA
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TCCTTGACTTCTATCACAGTTTCCTGGAGAAGACTGCGGTTCTACGGGTGCCGGTCCCTCCCAGTGTCGC
TTTTGAACTTGATCGTACTCGACCTGATCTGATCTCTGAGGATGTCCAGAGGCGGTTCATACAAGAGGTG
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG221831 representing NM_001130151
Red=Cloning site Green=Tags(s)

MGEVAGGAAPGPPRSGLVSIIIGAEDEDFENELEANSEDQNSQFQSLEQVKRRPAHLMALLQHVALQFEP
GPLLCCLHADMLSSLGPKEAKKAFLDFYHSFLEKTAVLRVPVPPSVAFELDRTRPDLISEDVQRRFIQEV
VQSQQAAVSRQLEDFRSKRLMGMTPWEQELSLLEPWIGKDRGNYEARERHVAERLLSHLEETQHTISTDE
EKSAAVVTAISLYMRHLGVRTKSGDKKSGRNFFRKKVMGNRRSDEPPKTKKGLSSILDPARWNRGEPSAP
DCRHLKVEADAEKPGPADRKGGLGMSSRDRTVGTPGQDNPGVSLHPLSTDSVDSREPGVDTPQEPGDTPP
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GQNTEESTERGKVELAAECCREILHHVNQAVRDMEDLLRLKDYQRRLDLTHLRQSSDPMLSEFKNLDITK
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SSSENGTGGAEMAPADARTERLLNDLLPFCRPGPEGQLAATALQKVLSLKQILLSTEEDSGAGPPRDGDG
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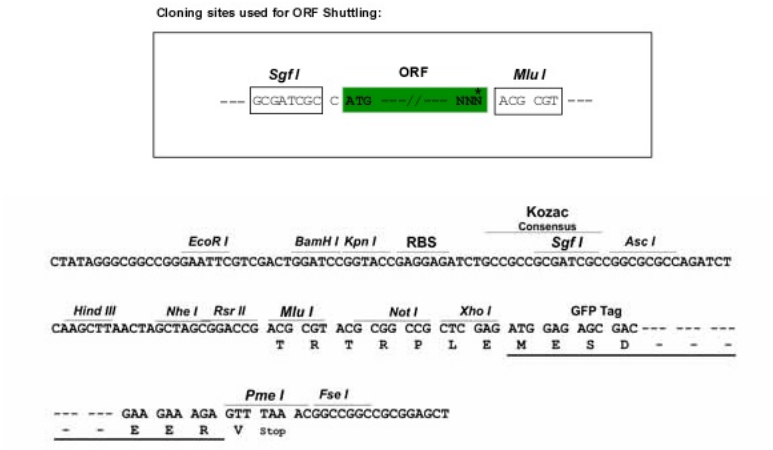
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

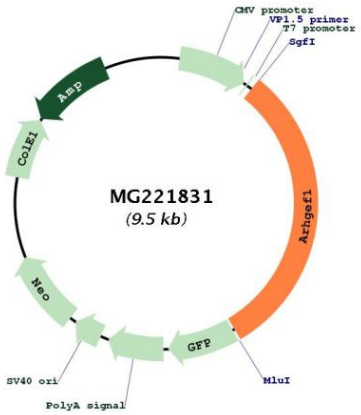


ACCN: NM_001130151

ORF Size: 2928 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_001130151.1, NP_001123623.1
RefSeq Size:	3441 bp
RefSeq ORF:	2931 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 MG221831