

## Product datasheet for **MG212100**

### Arhgap21 (BC076629) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgap21 (BC076629) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Arhgap21
Synonyms:	5530401C11Rik; AA416458; ARHGAP10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG212100 representing BC076629 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCACACATTGGACTGGTCTGCCTGAGGAAGATGGTGACAACTCAAGGCCTGTGGGGCGGCCTCTG  
CCTGTGAGGTGTCAAAAAACAAAGATGGAAAAGACCAAGGTGAACCTGTGCACCGTCTGAAGATGAGCC  
ATTCTCCTGGCCAGGTCCAAAACAGTCATGCTGAAGAGAATCTCAAGGGTTTGGTTTCACATTACGA  
CACTTCATCGTTTATCCCCAGAGTCTGCAATCCAGTTTTTCATATAAGGATGAAGAGAATGGAAACAGAG  
GAGGAAAGCAAAGGAACCGATTGGAGCCGATGGATACCATATTTGTTAAACAAGTGAAGGAAGGAGGGCC  
GGCCTTCGAGGCTGGCTTATGCACAGGTGACAGAATTATAAAAGTCAATGGAGAAAGTGTCATAGGAAAG  
ACCTATCCCAAGTAATTGCTCTCATTCAAGACAGTGACACCACCTGGAGCTCAGTGTAAATGCCCAAGG  
ATGAAGACATTCTCCAAGTGGCATTCTCAAGATGCATACCTGAAAGGCAATGAAGCTTACAGCGGCAA  
TGCCCGTAATATACCTGAACCTCCACCAGTTTGTATCCCTGGTTGCCATCGACTCCTTCAGCTACTGCA  
CAGCCGGTGAAACATGCCCTCTGATTCAATACCGAACAACAGCAAACAGTGACACCAGTCTCACAC  
AACCTGGCAGGGCCTATAGAATGGAAATACAAGTGCCCTCCGTACCAACAGATGTTGCAAAGTCAAACAC  
AGCAGTGTGTGTTTGAATGAGAGTGTGAGGACCGTCATTGTGCCTTCTGAGAAGGTGGTAGACTTGCTA  
GCCAATAGAAAACAACCTTCAGTCCCTCACATAGAAGTGAAGAGTAAAGTATGGTAAATGAGCAGG  
CCTCTACAAAAGCAGCATCGAGAACAACGTACCGGCATCAGTCCCACTGCCCATCTGATTTCATCAGAC  
CACAGGCTCCAGATCCTTAGAACCTTCTGGAATTTTACTTAAATCTGGAATTAACAGTGGACATTAGAA  
GGAATCTCAAGCAGTAGATCACAAAGCCGTGGATTCCCCTCCTGTGTCTGTCAATCACTACTCTGCAAAC  
CCCATCAGCACATAGACTGGAAAAATTATAAGACTTACAAAGAATACATTGATAATAGGAGATTGCACAT  
AGGTTGTCTGACAAATCCAGGAAAGACTGGACAGCTTACGAGCTGCATCTCAGAGCGCAGCAGACTATAAC  
CAGGTGGTACCCACCCGCACTACTCTGCAGGTACGACGTGAAGCACCTCTCATGCCGAGTGCCCCAGT  
CTGTTTCAGATCCGGCAGCGCAGTGTATCTCAGGAAAGACTGGAAGATTCTGTGCTGATGAAGATTGCC  
AAGGAGCGCTCAAGGAGCGTGACCTACCGCCTGTTAGCTCAATAATCATAGAAGCTGTTCTGTG



[View online »](#)

GATTACATAGAGGGACAGACGGAAGCCACAGCCACTGTCAATTCTGAAAGTCAGATACCTGACTCAAATG  
 GGGAAACGAAAACAGACTTACAAGTGGAGTGGCTTCACTGAGCAGGATGATAGACGCGGTATTACAGAAA  
 ACCCAGGCAGCAAGAAATGCACAAGCCTTTCCGAGGCTCAAATTTGACTGTGGCTCCCCTGTTAATTCT  
 GATAACAGGGCCCTGGTTGGGAGAGGGGTAGGACCTGTCTCACAGTTTAAAAAATCCCGCCGACCTAA  
 GACCACCACATTTCAACAGAAATTTTCCAACCAGACTGGGGTGTCACTTCAACGGGGTATTGCACAAGA  
 CAGGTCCTCCACTCGTAAAAGTCCGAAGTAACTCTGAAAAGTCCACCTCCACCTGTGTCAAACCGTCC  
 TTCAGCCAGCACTCACTGGCTTCCATGAAAAGCAAAAGGCTGTCAATCATCTGCATCAACACAGTGTGC  
 TGAGTCAGCAGACGCAGTTCAGATCCGAAAAGCACCTTCGAGCACCAGCTGGAGACTGAGGTATCCTCGTG  
 TCTACCAGGAACTTCTGCCAAGACCAGTCCACAGCTCAGTGAGAAATTTGGGAACATCAGACTTAGAACTA  
 CCTGCCATCCCAAGGAATGGAGATATAAATTTACAGGAGGCTGAAATTCAGCAGCCAGATGTGCTAGATA  
 ATAAAGAATCTGTCAATTCTAAGAGAGAACTCAGTCTGGCCGCCAGACGCCACAGCCTTTAAGACATCA  
 GTCTTACATCCTGGCAGTGAATGACCAGGAGACCGGGTCCAGACACCCTGTGGCTGCCAAACGATGCA  
 CGCAGAGAGGTCCATATAAAAAGAAATGGAGGAGAGGAAAGCTTCAAGCACCAGCCCTCCTGGTGATTCCC  
 TGGCATCCATCCCTTTATAGATGAGCCAACAGTCTAGCATCGACCACGAGATTGCACATATTCCTGC  
 ATCTGCTGTCTCCGCTCTACTGCCACGTCCCCTCCATTGCAACTGTTCCCCCAGCCTCAGGACC  
 TCTGCTCCTTTGATTGACGTCAGCTCTCCACGACCAAGAATCTGTTGGACCTCCAGCCTGGATGGCC  
 AGCACAGCTCAAAGACAGAAAGATCCAATCTACGATGAAGGACTGGATGATTATAGAGAAGATGCAAA  
 ACTATCCTTTAAGCAGTGTCTAGCCTGAAGGGAATCAAGATTACAGACAGCCAGAAGTCATCAGAAGAC  
 TCTGGATCGAGAAAGGGTCTTCTCCGAGGCTTTCAGTGATGCAGCCCGAGAAGGCTGGCTCCAGTTCC  
 GACCACTGGTCACCGATAAAGGGCAAGAGAGTGGTGGCAGTATTCGGCCATGGAACAGATGTATGTTGT  
 CCTTCGGGGCCACTCACTTTACTTGTACAAAGACAGAAGAGAGCAGACAACGCCATCAGAAGAAGAGCAG  
 CCCATCAGTGTCAACGCTTGCCTGATAGACATCTCGTACAGTGAAGACAGAGATGATATGTTATCATGGATCAAGAC  
 TTACCAGTCTGACTGTGAATGCTTGTTCAGGCTGAAGACAGAGATGATATGTTATCATGGATCAAGAC  
 TATTACAGAAAGTAGCAACCTAAATGAAGAGGACACTGGAGTTACCAACAGAGATCTAATTAGTCCGAAGA  
 ATCAAAGAGTATAACAGTCTGCTGAGCAAAACAGAACAGTTGCCAAAACACCTGCCAGAGTCTTAGCA  
 TCAGGCAAACCTTCTGTTGGTGCTAAATCAGAGCCAAAGACTCAAAGCCCACATTCTCAAAGGAGGAGTC  
 CGAGAGGAAGCTTCTCAGTAAAGATGATACCAGTCCCCCTAAAGACAAAGGTAAGTGGAGAAGAGGCATT  
 CCAAGCATCGTGAGGAAGACGTTTGAGAAAAAGCCGGCCGCCACAGGACCTTTGGAGTTAGGCTGGATG  
 ACTGCCACCCGCCACACCAACAGGTACATTCCATTAATCGTTGACATATGTTGCAAATAGTTGAAGA  
 AAGGGTCTTGAATATACAGTATTTACCGAGTCCCAGCAACAACGCAGCCATTTCAAGCATGCAGGAA  
 GAACTCAACAAGGGGATGGCAGACATTGACATACAAGATGATAAATGGCGAGATTTGAATGTGATAAGCA  
 GTTACTAAAATCCTTCTCAGAAAGCTCCCTGAGCCTCTTTTACGAATGACAAATATGCTGACTTCAT  
 TGAGGCCAATCGCAAAGAGGACCCACTGGATCGGCTACGAACATTAAGAGACTAATTCATGACCTGCCT  
 GAGCATCATTTTGGAGCCTCAAGTTTCTCTCGGCTCATCTGAAGACAGTGGCAGAGAATCAGAAAAGA  
 ATAAGATGGAACCCAGAAACCTAGCGATCGTTTTTGGTCCAACCTAGTGAGAATCAGAAAGACAACAT  
 GACCCACATGGTCACGCACATGCCTGACCAGTATAAGATCGTAGAGACTCTATCCAGCATCATGACTGG  
 TTTTTACAGAAGAAGGTGCCGAAGAGCCTTTACAGCAGTGCAGGAGGAGAACACAGTACTCCCAGC  
 CAGTACCAACATAGATCATTGCTCACCAACATTGGAAGGACAGGCGTGTCCCTGGAGATGTATCAGA  
 TTCAGTACTAGTACTCCGCAAAATCTAAGGGCTCCTGGGGATCCGGGAAGGATCAGTATAGCAGGGAA  
 CTGCTTGTATCCTCCATCTTCGAGCTGCCAGTGCAGAGGAAAAAGCCGAAAGAGAAAAGCCAGGCCA  
 GCAGCTCTGAGGATGAGCTGGACAGTGTGTTCTTAAAGAAGGAGAATACGGAACAGAGTACAGTGAAT  
 TAAAGAAGAGTCCAAAAGAGAAAAGCAGACATCAGGTAGCAAGCAGAGGGTCTGCTGTTGCCAAAAGAAAGT  
 AACACTAAGAAAGACTCGGGTACAACGAAGGAGGAGAAGAAGTACCGTGGGAAGAACCCCCACCAC  
 ACAGCTCCAAACGCAACAGGTCACCAACCCTCAGCTGTGCGCTGGCCATGCTGAAAGAGGGCCCCAGATC  
 ACTTCTGACACAGAAGCCCCACTGTGAAGAGACAGGGTCTGACTCAGGCACTCTGCTTAGCACGCTTCC  
 CAGGCTTCGCTCTTGGGCTCCTCCACTAAAAATCCACCAGTCCGGAACCAAGCACAGTGAATTTTTGT  
 CCATTGCTGGTACCACCCTCGGATTATCTACCACATCATCCACTACCTACTTGACCAGCCTGGACTC  
 CAGCCGCTGAGCCTGAGGTGCACTGAGTGGCCGAGAGCAAGGGGGATGAGGCTGATGACGAGAGGAGC  
 GAGCTGGTGAAGGACGGCCAGTGGAGACCGACAGTGAAGTGAAGTTCCTCCCTGTTTCCCACCACCC  
 TGACTTCAGACCGGCTGTTCCGAGGAAAATCCAGGAGTTGCCAGGGTGAAGCCGAGGAACTCCGAAGG  
 CAGTGAGGCCAGCTGCACCGAGGGAAGCCTCACACCGAGTTTAGACAGCCGAGGAGCAGTTCAGCTCC  
 CATAGACTGATCGAATGCGACACACTGTCCAGGAAGAAGTCTGCTCGTTCAAGTCAAGCAGTGGGAGCC

CCGGAGACACCAGGACTGAGAAAGAACTCCTGCCCTGGCCAAGATGTTTGACGTCATGAAGAAAGCAA  
 GTCGACAGGGAGCCTCCTCACACCCAGCAGAAGTGAATCCGAAAAGCAGGAGGCCACTTGGAAAACAAA  
 ATAGCAGATCGTTTAAACTGAGACCCAGGGCACC CGCAGACGACATGTTTGGAGTTGGGAATCAAAAAC  
 CTACTGCTGAGACAGCGAAAAGGAAAAACATCAAACGCAGACACACGCTTGGAGGCCACAGAGATGCTAC  
 TGAGATCAGCGTCTGAGTTTCTGGAAGCTCATGAGCAGAGTGGGACAAAAGAGTCTGAACTTTCGGCT  
 GTGAATCGGTTAAACCCAAATGCTCAGCCAGGACCTTCCATCTCAGACTGGCTGCCAGGGAGCGCG  
 TCCGACCAGTGCCTCCGACCTTAGCAGAGGCGAAGGCCTCGAGCCCCAGGCTGAGAGCCCCAGCGTGCT  
 GGGAACACCCATCAGACCCACTACCACCGTCTCAGCAGCCGAAGCAAGGGTTGCTGTACCAGCACC  
 TTGGCTTCAACCAGCCAGTCCCCTCTTTTTCACACCACCACAGTCACTGACCAAATAAACAGAGAAAGCT  
 TCCAGAACATGAGCCAAAATGCTAGTTCTACAGCTAACATCCACCCCCACAAACAGTCTGAAAGTCCAGA  
 CACTAAAGCAGAGACTCCTCCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG212100 representing BC076629  
 Red=Cloning site Green=Tags(s)

MATHWTGLPEEDGDKLKACGAASACEVSKNKDGKDQGEVPSSEDEPFVSWPGPKTVMLKRTSQGFGLR  
 HFIVYPPESAIQFSYKDEENGRGGKQRNRLPMDTIFVKQVKEGGPAFEAGLCTGDRIKVNESVIGK  
 TYSQVIALIQNSDTTLELSVMPKDEDILQVAYSQDAYLKGNEAYSGNARNIPEPPPVCYPWLPSTPSATA  
 QPVETCPPDSLPNKQQTSAVLTPQGRAYRMEIQVPPSPTDVAKSNTAVCVNCSVRTVIIPSEKVVDLL  
 ANRNNPSGSPSHRTEEVRYGVNEQASTKAASRTTSPASVPTAHLIHQTGSRSLPSGILLKSGNYSYHSE  
 GISSRSQAVDSPVSVNHYSANSHQHIDWKNYKTYKEYIDNRRLHIGCRTIQRERLDSLRAASQSAADYN  
 QVVPTRTTLQVRRRSTSHDRVPQSVQIRQRSVSQERLEDSVLMKYCPRSASQALTSPPVSNHNRTRSW  
 DYIEGQTEATATVNSESQIPDSNGERKQTYKWSGFTEQDDRRGIHERPRQEMHKPFRGSNLTVAPVNS  
 DNRRLVGRGVGVPVQFKKIPDLRPPHSNRNFTTTGVSLLQRGIAQDRSPLVKVRSNSLKVPPPVSKPS  
 FSQHSLASMKDQRPVNHHLQHLSVLSQQTQFRSESTFEHQLETEVSSCLPGTSAKTSPLSENLTSDLEL  
 PAIPRNGDINLQEAIEIQPDVLDNKEVILREKQSGRQTPQPLRHQSYILAVNDQETGSDTTTCLPND  
 RREVVHIKRMEERKASSTSPGDSLASIPFIDEPTSPSIDHEIAHIPASAVISASTAHVPSIATVPPSLTT  
 SAPLIRRQLSHDQESVGPPLDQGHSSKTERSKSYDEGLDDYREDAKLSFKHVSLLKGIKITDSQKSSD  
 SGRKGSSEVFSDAAREGWLQFRPLVTDKGRVGGSIKRWKQMYVVLRGHSLYLKDRREQTTPSEEEQ  
 PLSVNACLIDISYSETKRRNVFRLTSDCECLFQAEDRDDMLSWIKTIQESSNLNEEDTGVNTRDLISRR  
 IKEYNSLLSKTEQLPKTPRQSLIRQTLGAKSEPKTQSPHSPKEESERKLLSKDDTSPPKDKGTWRRGI  
 PSIVRKTFEKKPAATGTFGVRLDDCPAHTNRYIPLIVDICCKLVEERGLETYGIYRVPGNNAAISSMQE  
 ELNKGMAIDIDIQDDKWRDLNVISSLLKSFRRKLEPLFTNDKYADFIANRKEPLDRLRTLKRLIHDLP  
 EHHFETLKFLSAHLKTVASENKNKMEPRNLAI VFGPTLVRTSEDNMTHMVTMPDQYKIVETLIQHHDW  
 FFTEEGAEELTAVQEENTVDSQVPVNIHLLTNI GRTGVLPGDVS DSATSDSAKSKGWSGSGKDQYSRE  
 LLVSSIFAAASRKRKPKKEKAQPSSEDELDSVFFKKENTEQSHSEIKEESKRESETSGSKQRVVAKES  
 NTKKDSGTTKEEKIPWEEPPPHSSKRNRSPTLSCRLAMLKEGPRSLLTQKPHCEETGSDSGTLLSTSS  
 QASLLRSSTKKSTSPETKHSEFLSIAGTTTSDYSTTSSTTYLTSLDSSRLSPEVQVSAESKGEADDEERS  
 ELVSEGRPVETDSESEFPVFTTLTSDRLFQKQFQEVAVSRRNSEGSEASCTEGSLTPSLDSRRQQFSS  
 HRLIECDTL SRKKSARFKSDSGSPGDTRTEKETPALAKMFDVMKKGKSTGSLTSPSRSESEKQEA WTKK  
 IADRLKLRPRAPADDMFVGNGKPTAETA KRKNIKRRHTLGGHRDATEISVLSFWKAHEQSAKSELSA  
 VNRLKPKCSAQDLSISDWLARERVRTSASDL SRGEGLEPQAESPVLGTPISTHSPPSQQPEARVAATST  
 LASTSQSPLFTPPQSPDQINRESFQNMSONASSTANIHPHKQSESPDKAETPP

TRTRPLE – GFP Tag – V

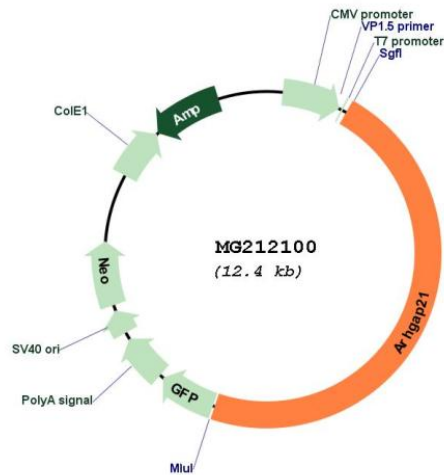
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC076629

ORF Size: 5834 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](#)

<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>	<u><a href="#">BC076629</a></u> , <u><a href="#">AAH76629</a></u>
<b>RefSeq Size:</b>	6944 bp
<b>RefSeq ORF:</b>	5834 bp
<b>Locus ID:</b>	71435
<b>Cytogenetics:</b>	2 A3
<b>Gene Summary:</b>	Functions as a GTPase-activating protein (GAP) for RHOA and CDC42. Downstream partner of ARF1 which may control Golgi apparatus structure and function. Also required for CTNNA1 recruitment to adherens junctions (By similarity).[UniProtKB/Swiss-Prot Function]