

Product datasheet for RR212783

Arhgap29 (NM_001009405) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgap29 (NM_001009405) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arhgap29
Synonyms:	B130017i01rik; RGD1306185
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR212783 representing NM_001009405 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGTAAGCATCAGAACCTCAATTCTGTAGACCTTCAGAACGCTGCAGAAACGCTCGTTCGAAAGTGA
AAGCTGTGAACCTTACAGAAGTTAATGACGAAAACAAAAACGATCTATTCGAGAAGTCTTTTCCTCCAT
TGAAACTCTGGCATTACCTTTGGAAACATCCTCACAACTTCCTTATGGGAGATGTAGGCAATGATTCCG
ATACTACGACTGCCTATTTCTCGAGAGAGTAAGTCCTTTGAAAACATTTCTATGGACTCAGTGGACTTAC
CTCATGAAAAAGGAACTTTTCTCCTATAGAACTAGACAACCTTGCTGTTAAAGAAGCTGACTCTATAGA
ACTGGCTTTGTCTTATGCTAAAACCTTGGTCAAAATATACCAAGAACATAGTGTCCCTGGGTTGAAAAAAG
CTCAACTTGGAAATGGAGTCCACTAGAAATATTGTAATAATGGCAGAGGCAACTAGATCTAGCATTGGAA
TACAGGAGTTTATGCCTTTGCAGTCTCTCTTTACCAACGCTCTCCTTAATGATATACACAGCAGTCACCT
TTTACAACAGACAATCGCAGCTCTCCAAGCCAACAAATTCGTGCAGCCTCTACTTGGGAGGAAGAATGAA
ATGGAGAAACAAAGGAAAGAAAATAAAGAAGCTTTGGAAGCAGCAGCAGAATAAATGCTTGAACAGAGA
CGGCTCTTAAAAAGGCAAACTGTTATGCATGCAACGGCAAGATGAATACGAAAAGGCAAAATCATCCAT
GTTTCGAGCAGAAGAAGAGCAGCTGAGTTCAAGTGTGGACTGGGAAAAAATCTCAACAACTACTAGAA
AAAAGGCGGAGATTGGAAGAAGAGGCGCTTCAAAAAGTAGAAGAAGCAAAATGAGCACTACAAAGTCTGTG
TAACAAATGTTGAAGAAAGACGGAATGATCTAGAAAATACGAAGCGAGAAATTTTAAACAGCTCCGGAC
ACTTGTTCAGTGTGACCTTACACTTAAAGCTGTAACAGTTAACCTCTTTTATATGCAGCAGCTTCAG
GCTGCTCCCTCGCCAACAGTTTACAGTCCCTCTGTGACAGTGCCAACTCTATGATCCAGGTGAGGAGT
ATAGTGAATTCGTGAAGGCTACAAGCTCAAGTGAATTAGAAGAAAAGGTTGACGGGAATGTAACAAACA
AATAGCCAGCAGTCCGCAGACATCTGGATATGAACCTGCTGACTCTTTAGAGGATGTTGCACGCCTCCCT
GACAGCTGTCACAACTTGAAGAGGACAGGTGTTCCAACAGTGCAGACATGACAGTCTCTTTTCATAA
GATCGTGAAGTTTCGGGATGTTTATGACTCTGAGAGTACTGGAGGAAGCAGTGAGTCTAGATCTCTGGA
TTCAGAATCTATAAGTCCAGGAGACTTTTCATCGAAAACCTCCACGAACTCCATCCAGTGGAAACATGTCT
TCTGCTGATGATCTAGATGAACGAGAGCCACCATCACCTCAGAAGCTGGACCAATTCCCTCGGAACAT



[View online »](#)

TTAAGAAAACCTTTGATGTCGAAGGCAGCTCTCACTCACAAAGTTTCGCAAGTTGAGATCCCCACAAAGTG
CAGGGATTGTGAAGGCATCGTAATGTTCCCGGGCGTCGAGTGTGAAGAGTGTCTCCTTGTGGTCCACCGA
AAGTGTGGGAGAATTTAGTCATTGTTTGTGGTTCATCAAAAACCTCAGGGGAAAAATGCACATATTTGGAG
CAGAATTCATACAAGTTGCAAAAAGGAACAGATGGCATCCCTTTCGTGCTAAAAATATGCGCCTCAGA
AATTGAAAGTAGAGCCTTGTGTCTCCAGGAATTTATCGTGTGGTGGAAACAAAATAAAAACCTGAAAA
CTGTGCCAAGCTTTGAAAAATGGAATGCACTTAGTAGACATTTCAGAATTCAGTTCACATGACATCTGTG
ATGCTTTGAAATTATACCTGCGACAGCTCCAGAACCTTTATTTTATTTCAGATTGTACAAGGAATTTAT
AGACCTTGCAAAAAGAGATACAACATGTAATGAAGAACAAGAGGCAAAAAAGATAGCCCCGAAGACAAA
AAGCACCCACACGTGAGCATAGAAATCAACCGCATCCTTCTGAGGAGCAAGGACCTGCTGCGACAGCTGC
CAGCATCAAACCTCAACAGTCTTATTACCTCATCGTCCATCTGAAGCGGGTGGTGGACCATGCAGAAGA
GAACAAGATGAATTCTAAGAACCTGGGGGTGATATTTGGCCCAACGCTCATTAGGCCAAGGCCTACAACG
GCTCCTGTACCATCTCGTCCCTTGTGAATATCCAGTCAGGCACGAGTAGTAGAGTTCCTCATTACTT
ACGCACAGAAGATCTTCGATGGGTCCCTCCAGCCTCAAGCTGGTGTATAGCTAACACAGGTGCTATTGC
ACCTCAAGTCGATCACGGGTGTCATCCAAAACCGCTTTATCACCAGATGAGAGAGACTCGGATCATTCT
TTGAAACAACCTATTCTTCTCTTCAAAGGAAGATATCCGTAATGATTGTGAGAGCAAAACCTTTTGAAT
TAACTACATCATTGAAGAATCAGAACGCAAAACAAAATGCATTGGGAAAAATGTGATGCTCCCATCCTTGA
TAACAAAGTACATTTGCTTTTTGACCAAGAGCTTGAGTCAGCATCCACAAAGACGGAAGATACCTGTAAA
AGCCCTAAGCTGCTCCTTCTGAGATCTGATAGGGTAGCAATAGTGTGCAGAGACCGACTCCGAGGACCA
GGCTAAGACCTGTAAGTCTGCCTGTGGATCGACTGCTGCTGCTTCCCGGGTCTCCTACTGAGAGAAGCAG
CCGGAATACAGGAAACACAGACTCAGACAAGTTTGGCAAGAAATGCCGCCTTTGAAGGACTCCATAGAAA
GACAACTCAAATACTACTTGTCCAAAGTTAATGGCTTTGACCAGCAAAATGTACAGAAAATCCTGGGACA
AACAGAATGAGCGGAACAGTTTCACTGCCAAGACTACGGTGATTATCCCCAGTGCCTATGCCGAGAAGGG
ATTGGCAGTGAGCACGGGAACAACAGGGGCCATTCCAGTGGTGTGCTGCCAGCCTAGTAAAGCACATGCA
GACCCCGCCAGGTCTGCAAGAGACAGTCCGAGCACAGCTCCTCTGACTCCTGCCCTGTTGTCTGTCA
GAGCACCCAGAACACTGCAGCCCCAGCACTGGACAACGTTTTTACAACCACCTAACCCACCTTCAATGT
CAGGGGCACTGAGGAGAAAAACAGCATTCCCTCAGCAGCTGTGCCTCCTGTCTGCTGGTGCATGCTCCCGAG
AGTCATGTGGCAAAGTCAGACCCAGATTTGGAGGCCACATTGGCTTGTCTGTGCAGACAAGTGGTCAAC
CTAAAGAGAGCTCTGAGGAGCCCGCCTGCCTGAGGGGACTCCAACCTGCCAGAGACCTCGACTAAAACG
AATGCAGCAGTTTGAAGACCTTGAAGATGAAATCCACAGTTTGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR212783 representing NM_001009405
 Red=Cloning site Green=Tags(s)

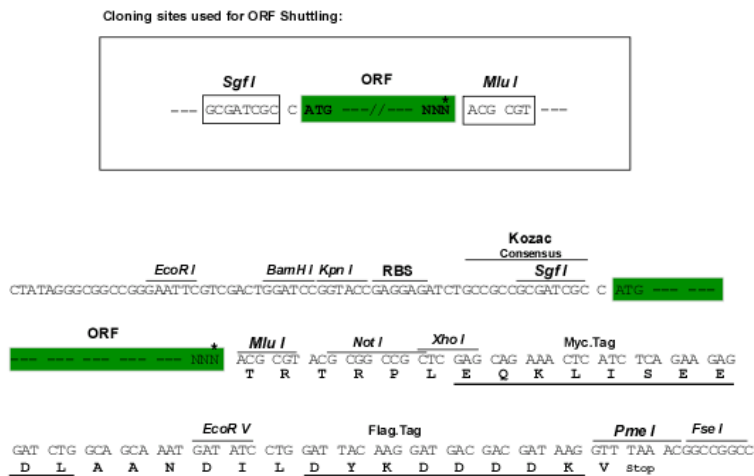
```
MSKHQNLNSVDLQNAETLASKVKAVNFTEVNDENKNDLRFREVFSSIETLAFTFGNILTNFLMGDVGND
ILRLPISRESKSFENISMDSVDLPHEKGNFSPIELDNLLKNSDSIELALSYAKTWSKYTKNIVSWVEK
LNLELESTRNIVKLAETRSSIGIQEFMPLQSLFTNALLNDIHSSHLLQQTIAALQANKFVQPLLGRKNE
MEKQRKEIKELWKQQQNKLLETETALKKAKLLCMQRQDEYEKAKSSMFRAEEEEQLSSSVGLGKNLNKLE
KRRRLEEEALQKVEEANEHYKVCVTNVEERRNDLENTKREILTQLRRTLQCDLTLKAVTVNLFHMQQQLQ
AASLANSLQSLCDSAKLYDPGQYSEFVKATSSSELEEKVDGNVKNQIASSPQTSGYEPADSLQEDVARLP
DSCHKLEEDRCSNSADMTGPSFIRSWKFGMFDSESTGGSSSESRLDSESI SPGDFHRKLRPTPSSGTMS
SADDLDEREPPSPSEAGPNSLGTFFKTLMSKAALTHKFRKLRSPTKCRDCEGIVMFPVGECEECLLVCHR
KCLENLVIVCGHQKLQGMHIFGAEFIQVAKKEPDGIPVFLKICASEIESRALCLQGIYRVCGNKIKTEK
LCQALENGMHLVDISEFSSHDICDVLKLYLRQLPEPFI LFRLYKEFIDLAKELQHVNEEQEAKKDSPEDK
KHPHVSIEINRILLRSKDLLRQLPASNFNSLHYLIVHLKRVVDHAENKMNSKNLGVIFGPTLIRPRPTT
APVTISSLAEYSSQARVVEFLITYAQKIFDGS LQPQAGVIANTGAIAPQVDHGCHPKPLLSPPERDSDHS
LKQLFFSSKEDIRTMDCESKTFELTTSFEESERQNALGKCDAPILDNKVHLLFDQELESASHKTEDTCK
SPKLLLLRSDRVANSVQRPTPRTRLRPVSLPVDRL LLLAGSPTERSRNTGNTDSDKFGKNAAFEGLHRK
DNSNTTCSKVNGFDQQNVQKSWDKQNERNSFTAKTTV IIPSAYAEKGLAVSTGNNRGHSSGAAQPSKAHA
DPARSARDTSEHSSSDSCPVAAVRAPRTLQPQHWTTFYKPPNPTFNVRGTEEKTAFPSSAAPPVVLVHAPQ
SHVAKSDPDLEATLACPVQTSQQPKESSEEPGLPEGTPTCQRPR LKRMQQFEDLEDEIPQFV
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

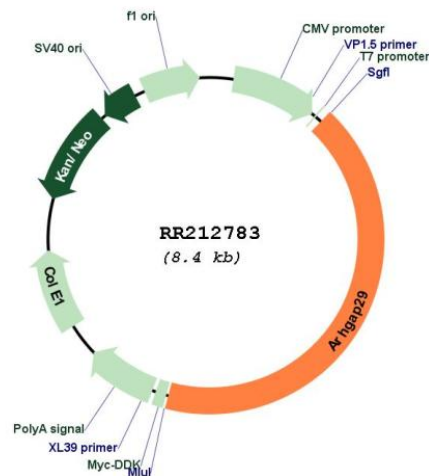
Sgfl-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001009405

ORF Size: 3546 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_001009405.1](#), [NP_001009405.1](#)

RefSeq Size: 4076 bp

RefSeq ORF: 3549 bp

Locus ID: 310833

UniProt ID: [Q5PQJ5](#)

Cytogenetics: 2q41

MW: 132.3 kDa

Gene Summary: GTPase activator for the Rho-type GTPases by converting them to an inactive GDP-bound state. Has strong activity toward RHOA, and weaker activity toward RAC1 and CDC42. May act as a specific effector of RAP2A to regulate Rho (By similarity). In concert with RASIP1, suppresses RhoA signaling and dampens ROCK and MYH9 activities in endothelial cells and plays an essential role in blood vessel tubulogenesis (By similarity).[UniProtKB/Swiss-Prot Function]