

Product datasheet for **MG202112**

Arhgdia (NM_133796) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Arhgdia (NM_133796) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Arhgdia
Synonyms: 5330430M07Rik; Gdi-1; Rho-GDI; RhoDGI; RhoGDI-1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG202112 representing NM_133796
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAGAACAGGAACCCACTGCTGAGCAGCTTGCAGATAGCTGCAGAGAATGAGGAAGATGAGCACT
 CTGTGAACTACAAGCCTCCAGCCAGAAGAGCATCCAGGAGATCCAGGAAGTGGACAAGGACGATGAAAG
 CCTCCGAAAGTACAAGGAGGCCCTGCTGGGCCGAGTAGCTGTCTCTGCAGACCCCAACGTCCCAATGTC
 ATTGTGACTCGACTGACCTTGGTATGCAGCACTGCCCCAGGCCCTCTGGAAGTGGACCTGACAGGTGATC
 TGGAGAGCTTCAAGAAACAGTCGTTTGTCTTGAAGGAAGGTGTGGAGTACCGGATAAAAAATCTTTCCG
 GGTGAACAGAGAGATCGTGTCCGGCATGAAGTACATCCAACACACATACAGGAAAGGGGTAAAAATTGAC
 AAGACTGACTACATGGTGGGAGCTATGGGCCGAGGGCCGAGGAGTATGAGTTCCCTGACCCCATGGAGG
 AGGCTCCCAAAGGCATGCTTGTCTGGGGCAGTTACAACATCAAGTCGCGCTTACAGATGACGACAAGAC
 TGACCACCTGTCTGGGAGTGGAAATCTCACCATCAAAAAGGAGTGGAAAGGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG202112 representing NM_133796
 Red=Cloning site Green=Tags(s)

MAEQEPTAEQLAQIAAENEDEHSVNYKPPAQKSIQEIQLDKDDESLRKYKEALLGRVAVSADPNV
 IVTRLTLVCSTAPGPLELDLTGDLSEFKKQSFVLKEGVEYRIKISFRVNRREIVSGMKYIQHTYRKGVKID
 KTDYMGVSYGPRAEYEFLLPMEEAPKGLARGSYNIKSFRFTDDDKTDHLSWEWNLTIKKEWKD

TRTRPLE - GFP Tag - V

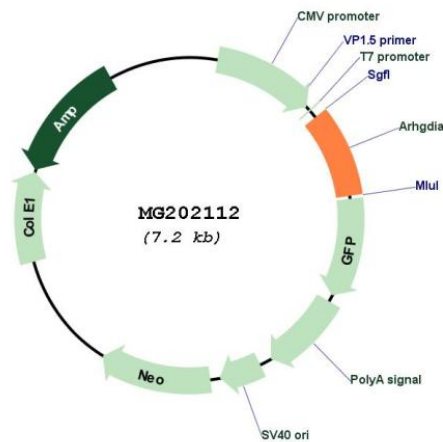
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_133796

ORF Size: 612 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_133796.8](#)

RefSeq Size: 2717 bp

RefSeq ORF: 615 bp

Locus ID: 192662

UniProt ID: [Q99PT1](#)

Cytogenetics: 11 E2

Gene Summary: Controls Rho proteins homeostasis. Regulates the GDP/GTP exchange reaction of the Rho proteins by inhibiting the dissociation of GDP from them, and the subsequent binding of GTP to them. Retains Rho proteins such as CDC42, RAC1 and RHOA in an inactive cytosolic pool, regulating their stability and protecting them from degradation. Actively involved in the recycling and distribution of activated Rho GTPases in the cell, mediates extraction from membranes of both inactive and activated molecules due its exceptionally high affinity for prenylated forms. Through the modulation of Rho proteins, may play a role in cell motility regulation. In glioma cells, inhibits cell migration and invasion by mediating the signals of SEMA5A and PLXNB3 that lead to inactivation of RAC1.[UniProtKB/Swiss-Prot Function]