

## Product datasheet for MR202112

### Arhgdia (NM\_133796) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Arhgdia (NM\_133796) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Arhgdia  
**Synonyms:** 5330430M07Rik; Gdi-1; Rho-GDI; RhoDGI; RhoGDI-1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR202112 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCAGAACAGGAACCCACTGCTGAGCAGCTTGCAGATAGCTGCAGAGAATGAGGAAGATGAGCACT  
 CTGTGAACTACAAGCCTCCAGCCAGAAGAGCATCCAGGAGATCCAGGAAGTGGACAAGGACGATGAAAG  
 CCTCCGAAAGTACAAGGAGGCCCTGCTGGGCCGAGTAGCTGTCTCTGCAGACCCCAACGTCCCAATGTC  
 ATTGTGACTCGACTGACCTTGGTATGCAGCACTGCCCCAGGCCCTCTGGAAGTGGACCTGACAGGTGATC  
 TGGAGAGCTTCAAGAAACAGTCGTTTGTCTTGAAGGAAGGTGTGGAGTACCGGATAAAAAATCTTTCCG  
 GGTGAACAGAGAGATCGTGTCCGCATGAAGTACATCCAACACACATACAGGAAAGGGGTAAAAATTGAC  
 AAGACTGACTACATGGTCCGGAGCTATGGGCCGAGGCCGAGGAGTATGAGTTCTGACCCCATGGAGG  
 AGGCTCCCAAAGGCATGCTTGTCTCGGGCAGTTACAACATCAAGTCGCGCTTACAGATGACGACAAGAC  
 TGACCACCTGTCTGGGAGTGGAAATCTCACCATCAAAAAGGAGTGGAGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR202112 protein sequence  
 Red=Cloning site Green=Tags(s)

MAEQEPTAEQLAQIAAENEDEHSVNYKPPAQKSIQEIQLDKDDESLRKYKEALLGRVAVSADPNV  
 IVTRLTLVCSTAPGPLELDLTGDLESFKKQSFVLKEGVEYRIKISFRVNREIVSGMKYIQHTYRKGVKID  
 KTDYMGVSYGPRAEYEFLLPMEEAPKMLARGSYNIKSRTDDDKTDHLSWEWNLTIKKEWKD

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_133796

ORF Size: 615 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: 2732 bp

RefSeq ORF: 615 bp

Locus ID: 192662

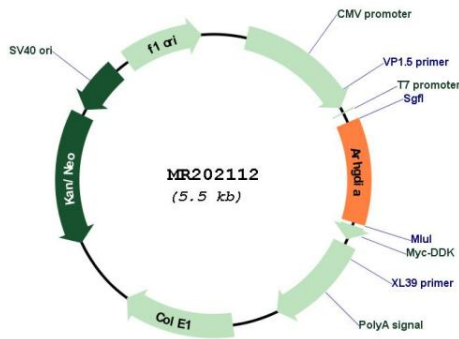
UniProt ID: [Q99PT1](#)

**Cytogenetics:** 11 E2

**MW:** 23.4 kDa

**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]

**Product images:**



Circular map for MR202112