

## Product datasheet for **RN204316**

### Arhgdia (NM\_001007005) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgdia (NM_001007005) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Arhgdia
Synonyms:	Bles01
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN204316 representing NM_001007005 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCAGAACAGGAACCCACTGCTGAGCAGCTCGCTCAGATAGCTGCAGAGAATGAGGAAGACGAGCACT  
 CTGTGAACTACAAGCCTCCAGCCCAGAAGAGCATCCAGGAGATCCAGGAAGTGGACAAGGATGATGAAAG  
 CCTTCGAAAGTACAAGGAGGCCCTGCTGGGCCGAGTAGCTGTCTCTGCAGACCCCAATGTCCCAACGTC  
 ATTGTGACCCGCTTGACCTTGGTGTGCAGCACTGCCCCAGGCCCTCTGGAAGTGGACCTGACAGGTGATC  
 TGGAGAGCTTCAAGAAACAGTCATTTGTGTTGAAGGAAGGTGTGGAGTACCGGATAAAAAATCTCTTTCCG  
 GGTGAACAGAGAGATCGTGTGAGCATGAAGTACATCCAGCACACATACAGGAAAGGGGTCAAAATTGAC  
 AAGACTGACTACATGGTCGGGAGCTATGGGCCAAGGGCTGAGGAGTATGAGTTCCTGACACCCATGGAAG  
 AGGCCCCCAAAGGCATGCTTGCTCGGGGCAGTTACAACATCAAGTCCCGCTTCACAGATGATGACAAAAC  
 TGACCACCTGTCTGGGAGTGGAATCTCACCATCAAAAAGGAATGGAAGGACT**GA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001007005
Insert Size:	615 bp


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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>NM_001007005.1, NP_001007006.1</u>
<b>RefSeq Size:</b>	1963 bp
<b>RefSeq ORF:</b>	615 bp
<b>Locus ID:</b>	360678
<b>UniProt ID:</b>	<u>Q5XI73</u>
<b>Cytogenetics:</b>	10q32.3
<b>Gene Summary:</b>	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]