

## Product datasheet for **MG215275**

### Arf1 (NM\_007476) Mouse Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
Product Name: Arf1 (NM\_007476) Mouse Tagged ORF Clone  
Tag: TurboGFP  
Symbol: Arf1  
Mammalian Cell Selection: Neomycin  
Vector: pCMV6-AC-GFP (PS100010)  
E. coli Selection: Ampicillin (100 ug/mL)  
ORF Nucleotide Sequence: >MG215275 representing NM\_007476  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGAATATCTTTGCAAACCTCTTCAAGGGCCTTTTGGCAAAAAGAAATGCGCATTCTCATGGTGG  
GCCTGGATGCTGCAGGGAAGACAACAATTCTATACAACTTAAGCTGGCGGAAATTTGACCACCATTC  
CACCATTGGTTTCAATGTGGAGACTGTTGAATACAAGAATATCAGCTTACCCTGTGGGATGTGGCGGC  
CAGGACAAGATCCGGCCGCTGTGGCGCCACTACTCCAGAACACCAAGGCTTGATCTTCGTAGTGGACA  
GCAATGACAGAGAGCGTGTGAACGAGGCCGTGAAGAGCTCATGAGGATGCTAGCTGAAGATGAGCTCCG  
AGATGCTGTTCTCTTGGTGTGGCAACAAGCAGGACCTCCCAATGCCATGAATGCGGCCGAAATCACA  
GACAAGCTGGGGCTGCACTCTCTACGCCACAGGAAGTGTACATTAGGCCACCTGTGCCACCAGCGGGG  
ACGGGCTCTATGAAGGACTAGATTGGCTGTCTAATCAGCTCCGGAACCAGAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG215275 representing NM\_007476  
Red=Cloning site Green=Tags(s)

MGNIFANLFGKLFGKKEMRILMVGLDAAGKTTILYKLLKGEIVTTIPTIGFNVETVEYKNISFTVWDVGG  
QDKIRPLWRHYFQNTQGLIFVVDSDNRERVNEAREELMRMLAEDELRDVLLVFANKQDLPNAMAAEIT  
DKLGLHSLRHRNWYIQATCATSGDGLYEGLDWLSNQLRNQK

**TRTRPLE** - GFP Tag - V

Restriction Sites: SgfI-MluI



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**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_007476.3](#), [NP\\_031502.1](#)

**RefSeq Size:** 1799 bp

**RefSeq ORF:** 546 bp

**Locus ID:** 11840

**UniProt ID:** [P84078](#)

**Cytogenetics:** 11 B1.3

**Gene Summary:** GTP-binding protein involved in protein trafficking among different compartments (PubMed:11950392). Modulates vesicle budding and uncoating within the Golgi complex. Deactivation induces the redistribution of the entire Golgi complex to the endoplasmic reticulum, suggesting a crucial role in protein trafficking. In its GTP-bound form, it triggers the association with coat proteins with the Golgi membrane. The hydrolysis of ARF1-bound GTP, which is mediated by ARFGAPs proteins, is required for dissociation of coat proteins from Golgi membranes and vesicles. The GTP-bound form interacts with PICK1 to limit PICK1-mediated inhibition of Arp2/3 complex activity; the function is linked to AMPA receptor (AMPA) trafficking, regulation of synaptic plasticity of excitatory synapses and spine shrinkage during long-term depression (LTD).[UniProtKB/Swiss-Prot Function]