

Product datasheet for **MG201653**

Arl3 (NM_019718) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Arl3 (NM_019718) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Arl3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201653 representing NM_019718
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCTTGCTCTCTATTTTGCACAAATTGAAAAGTGCACCAGACCAGGAGGTGCGAATCCTACTCCTGG
 GCTTGGACAACGCGGGCAAGACTACCTTGCTGAAGCAACTCGCATCTGAAGACATCAGCCACATCACACC
 TACACAGGGATTTAACATCAAAAGCGTGCAGTCACAAGTTTTAAGCTGAATGTATGGGACATTGGCGGG
 CAGAGGAAAATCAGACCATACTGGAGAAGTTATTTGAAAATACTGATATTCTCATCTATGTAATTGACA
 GTGCCGACAGAAAGAGATTTGAAGAGACGGGTCAGGAATAACGGAATTACTGGAGGAAGAAAAGCTGAG
 TTGTGTGCCCGTCTCATCTTTGCTAACAAGCAGGACCTGCTCACGGCAGCCCAGCCTCCGAGATCGCA
 GAAGGGCTAAACCTCCACACCATCCGGGACCGCTCTGGCAGATCCAGTCCTGTTTCAGCGCTCACAGGCG
 AGGGCGTCCAGGATGGCATGAACTGGGTCTGCAAGAATGTCAACGCAAAGAAGAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201653 representing NM_019718
 Red=Cloning site Green=Tags(s)

MGLLSILRKLKSAPDQEVRIILLGLDNAGKTTLLKQLASEDISHITPTQGFNIKSVQSQGFKLNVDIGG
 QRKIRPYWRSYFENDILIIYVIDSADRKRFEETGQELTELEEEKLSVPLVIFANKQDLLTAAPASEIA
 EGLNLHTIRDRVWQIQSCSALTGEGVQDGMNWVCKNVNAKKK

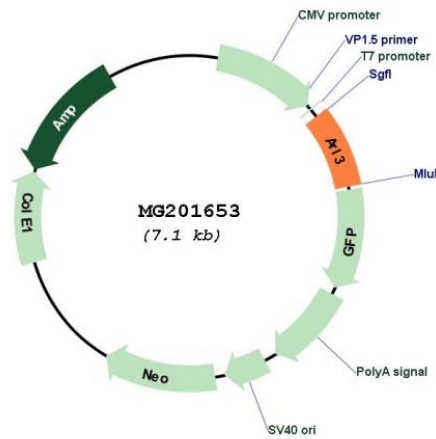
TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Plasmid Map:


ACCN: NM_019718

ORF Size: 546 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:	<ol style="list-style-type: none">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:	<u>NM_019718.3</u>
RefSeq Size:	838 bp
RefSeq ORF:	549 bp
Locus ID:	56350
UniProt ID:	<u>Q9WUL7</u>
Cytogenetics:	19 C3
Gene Summary:	Small GTP-binding protein which cycles between an inactive GDP-bound and an active GTP-bound form, and the rate of cycling is regulated by guanine nucleotide exchange factors (GEF) and GTPase-activating proteins (GAP) (PubMed:18376416). Required for normal cytokinesis and cilia signaling. Required for targeting proteins to the cilium, including myristoylated NPHP3 and prenylated INPP5E. Targets NPHP3 to the ciliary membrane by releasing myristoylated NPHP3 from UNC119B cargo adapter into the cilium (By similarity). Requires assistance from GTPase-activating proteins (GAPs) like RP2 and PDE6D, in order to cycle between inactive GDP-bound and active GTP-bound forms (PubMed:15979089). Required for PKD1:PKD2 complex targeting from the trans-Golgi network to the cilium (PubMed:25405894). [UniProtKB/Swiss-Prot Function]