

Product datasheet for **RG218183**

ARL6IP2 (ATL2) (NM_022374) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	ARL6IP2
Synonyms:	aip-2; ARL3IP2; ARL6IP2; atlastin2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG218183 ORF sequence, **codon optimized**.
Due to the complexity of NM_022374, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCTGAAGGTGACGAGGCCGCTAGAGGTCAGCAGCCCCACCAGGGTCTGTGGCGACGACGAAGGACAT
CTGACCCCTCTGCTGCAGTCAACCATGTTTCTTCCACTACCACTCTGGGAGAAAATTATGAAGACGATGA
TCTGGTTAATAGTGACGAGGTTATGAAAAAGCCGTGTCCAGTGCAAATTGCTCTGGCTCACGAGGACGAT
CATAACTTCGAGCTGGATGAGGAAGCCTTGGAGCAGATCCTCTGCAAGAACATATTAGGGACCTTAATA
TAGTGGTAGTCTGTGGCCGGGGCTTCCGAAAGGGCAAAAGCTTCTTCTGGATTTTATGCTTAGATA
TATGTACAACAAGGATTCTCAGAGTTGGATCGGAGGTAAACAACGAACCGCTGACAGGATTTACATGGCGG
GGCGGCTGCGAGCGGAGACGACTGGGATCCAGGTGTGGAATGAGGTCTTCGTGATAGATAGACCTAACG
GCACCAAGTGGCTGTGTTGCTTATGGACACACAGGGGGCCTTTGATAGCCAAAGTACAATCAAGGACTG
TGCCACGGTATTTGCCCTGTCCACTATGACTAGCTCCGTGCAGGTGTACAACCTGTCTCAGAACATCCAG
GAGGATGATCTGCAGCACTGCAGCTGTTCACTGAATATGGCAGACTGGCCATGGAGGAGATTTACCAGA
AGCCCTTCCAGACTCTGATGTTTTTATCCGCGACTGGTCATACCCCTACGAGCATAGTTATGGACTGGA
AGGTGGCAAGCAGTTCCTTGAGAAGCGCTGCAGGTGAAGCAGAATCAACATGAGGAACTCCAAATGTC
AGGAAACATATTCACAACTGTTTATGTAATCTGGGCTGCTTCTGCTCCCGCATCCAGGACTCAAAGTTG
CGACTAACCCCTCCTTCGATGGCCGGCTGAAAGACATTGATGAGGACTTTAAGAGAGAACTGAGAAACCT
GGTGCCTCTCTGCTCGCGCCAGAAAACCTCGTTGAGAAGGAAATAAGTGGTAGCAAGGTACATGCCGG
GACCTGGTAGAGTACTTCAAGGCCATATACAAATATATCAAGGTGAGGAGTGGCCACATCCAAATCTA
TGCTGCAGGCAACAGCTGAGGCCAATAATCTCGCCGCCGTGGCCGGCCAGAGACACCTACTGTAATC
TATGGAGCAGGTGTGCGGAGGCGACAAACCTTACATTGCTCCCTCCGATCTGGAAAGGAAGCACTTGGAC
TTGAAGGAGGTGCGCATCAAGCAATTCCGGTCCGTGAAAAAATGGGAGGCGACGAATTTGTAGACGAT
ACCAGGATCAATTGGAGGCCGAAATCGAAGAAACATACGCCAATTCATTAAACATAATGATGGGAAGAA
CATCTTTTACGCCCAAGGACGCCAGCTACCTGTTTGCAGTGATGTTTGCAGTGATACATCATCTCAGGG
CTGACCGGCTTCATAGGCTGAATAGCATCGCCGCTCCTTGAATCTTGTGATGGGTCTGGCTTTGATCT
TCCTCTGTACCTGGGCTATGTAATAACAGCGGTGAATTCAGGGAGATCGGCACGGTGATTGATCAGAT
CGCTGAAACCTTGTGGGAGCAGGTATTAGTAAGTTGTTTGAAGTTACCAGACGGAGAATGGTCCACAGG
GCCCTCTCTCAGCCAAAGGCAGAGGCTCTCTCCAACAATAACAAAAAGAAAAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

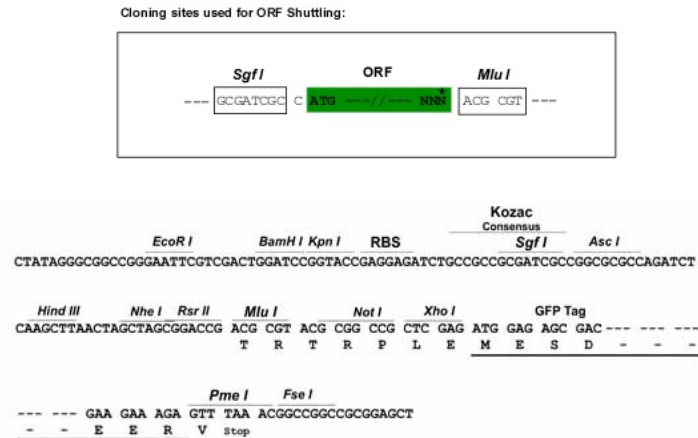
Protein Sequence: >RG218183 representing NM_022374
Red=Cloning site Green=Tags(s)

MAEGDEAARGQPHQGLWRRRRTSDPSAAVNHVSSTTSLGENYEDDLVNSDEVMMKPCPVQIVLAHEDD
HNFELDEEALQILLQEHIRDLNIVVSVAGAFRKGKSFLLDFMLRYMYNKDSQSWIGGNNPLTGFTWR
GGCERETTGIVWNEVFVIDRPNQKAVLLMDTQGAQDSQSTIKDCATVFALSTMTSSVQVYNLSQNIQ
EDDLQHLQLFTEYGRLEAMEEIQKPFQTLMLFIRDWSYPYEHSGLEGGKQFLEKRLQVQKQNHQHEELQNV
RKHIHNCFSNLGCFLLPHPLKVATNPSFDGRLKDIDEDFKRELRLNLVPLLLAPENLVEKEISGSKVTCTCR
DLVEYFKAYIKIYQGEELPHPKSMLQATAEANNLAAGVAGADTYCKSMEQVCGGDKPYIAPSDLERKHL
LKEVAIKQFRSVKMGDEFRRYQDQLEAEIEETYNFIKHNDGKNIFYAARTPATLFAVMFAMYIISG
LTGFIGLNSIAVLNLMGLALIFLCTWAYVKYSGEFREIGTVIDQIAETLWEQVFSKLFEVTRRRMVHR
ALSSAQRQLSSNNKKKN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022374

ORF Size: 1737 bp

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 or by calling 301.340.3188 option 3 for pricing and delivery.

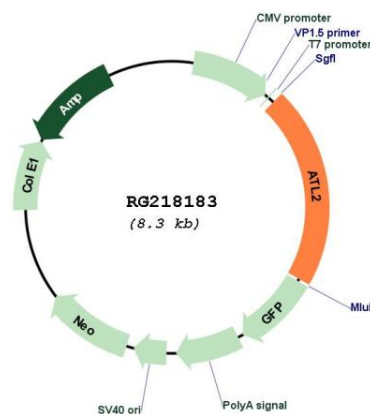
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_022374.1, NP_071769.1</u>
RefSeq Size:	4447 bp
RefSeq ORF:	1740 bp
Locus ID:	64225
UniProt ID:	<u>Q8NHH9</u>
Cytogenetics:	2p22.2-p22.1
Protein Families:	Transmembrane
Gene Summary:	GTPase tethering membranes through formation of trans-homooligomers and mediating homotypic fusion of endoplasmic reticulum membranes. Functions in endoplasmic reticulum tubular network biogenesis (PubMed:18270207, PubMed:19665976, PubMed:27619977). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG218183