

Product datasheet for **MG216412**

Arpc4 (NM_026552) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Arpc4 (NM_026552) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Arpc4
Synonyms: 20kDa; 5330419I20Rik; AI327076; p20-Arc
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG216412 representing NM_026552
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACTGCCACTCTCCGCCCTACCTTAGTGCCGTGCGGGCCACGCTGCAGGCTGCTCTCTGCCTGGAGA
 ACTTCTCCTCCCAGGTCGTGGAACGACACAACAAGCCAGAGGTCGAAGTCAGGAGTAGCAAAGAAGCTGCT
 ATTACAGCCTGTCACCATCAGCAGGAATGAGAAGGAAAAGTTCTTATTGAAGGCTCCATCAACTCTGTC
 CGGGTCAGCATTGCTGTGAAGCAGGCCGATGAAATTGAGAAGATTTTATGCCATAAATTCATGCGCTTCA
 TGATGATGCGAGCAGAGAACTTTTATCCTTCGAAGGAAACCTGTGGAGGGATATGACATCAGCTTCT
 CATCACCAACTTCCACACGGAGCAGATGTACAAACACAAGCTGGTGGACTTTGTAATCCACTTCATGGAG
 GAGATCGACAAGGAGATCAGTGAGATGAAGCTGTCGGTCAATGCCGGGCTCGTATCGTAGCTGAGGAGT
 TCCTCAAGAATTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG216412 representing NM_026552
 Red=Cloning site Green=Tags(s)

MTATLRPYLSAVRATLQAALCLENFSSQVVERHNKPEVEVRSSKELLLQPVITSRNEKEKVLIEGSINSV
 RVSIQAVKQADEIEKILCHKFMRFMMAENFFILRRKPVEGYDISFLITNFHTEQMYKHKLVDFVIHFME
 EIDKEISEMKLSVNARARIVAEFLKNF

TRTRPLE - GFP Tag - V

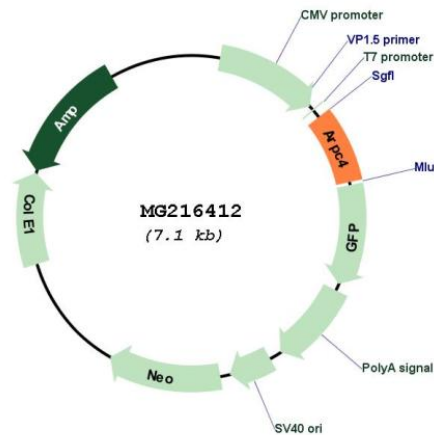
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_026552

ORF Size: 504 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_026552.3</u> , <u>NP_080828.1</u>
RefSeq Size:	2271 bp
RefSeq ORF:	507 bp
Locus ID:	68089
UniProt ID:	<u>P59999</u>
Cytogenetics:	6 E3
Gene Summary:	Actin-binding component of the Arp2/3 complex, a multiprotein complex that mediates actin polymerization upon stimulation by nucleation-promoting factor (NPF). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility. In addition to its role in the cytoplasmic cytoskeleton, the Arp2/3 complex also promotes actin polymerization in the nucleus, thereby regulating gene transcription and repair of damaged DNA. The Arp2/3 complex promotes homologous recombination (HR) repair in response to DNA damage by promoting nuclear actin polymerization, leading to drive motility of double-strand breaks (DSBs).[UniProtKB/Swiss-Prot Function]