

## Product datasheet for MR201582

### Arpc3 (NM\_019824) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Arpc3 (NM\_019824) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Arpc3  
**Synonyms:** 1110006A04Rik; p21-Ar; p21-ARC; p21Arc  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201582 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCGGCATAACCACTCTTCTCTCATGGACCCGGACACCAAGCTCATCGGTAACATGGCCCTGTTGCCCC  
 TCCGAAGCCAGTTCAAAGGACCCGCCCTCGCGAGACCAAGACACGGACATTGTGGATGAAGCCATCTA  
 CTACTTCAAGCCAATGTCTTCAAGAACTATGAAATTAAGAATGAAGCGGACAGGACATTGATCTAC  
 ATCACACTCTACATTTCTGAGTGTCTAAAGAACTCCAAAAGTCAACTCCAAGAGCCAAGGCGAGAAGG  
 AAATGTACACGCTAGGAATCACCAACTCCCCATCCCCGGAGAGCCTGGCTTTCCTCTCAACGCCATTTA  
 TGCCAAGCCTGCGAGCAACAGGAGGACGAGATGATGCGTGCGTACCTCCAGCAGCTGAGGCAAGAGACC  
 GGACTGAGGCTGTGTGAGAAGGTTTTTGACCCTCAGAGTGATAAACCCAGCAAGTGGTGGACTTGCTTTG  
 TGAAGAGACAGTTCATGAACAAGAGTCTTTCGGGGCCTGGGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201582 protein sequence  
 Red=Cloning site Green=Tags(s)

MPAYHSSLMDPDKLIGNMALLPLRSQFKGPAPRETKDIDVDEAIYYFKANVFFKNYEIKNEADRTLII  
 ITLYISECLKKLQKCNKSKQGEKEMYTLGITNFPPIPGEPGPLNAIYAKPASKQEDEMMLRAYLQQLRQET  
 GLRLCEKVFDPQSDKPSKWWTCFVKRQFMNKSLSGPGQ

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_019824

**ORF Size:** 537 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:**

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\\_019824.3](#)

**RefSeq Size:** 879 bp

**RefSeq ORF:** 537 bp

**Locus ID:** 56378

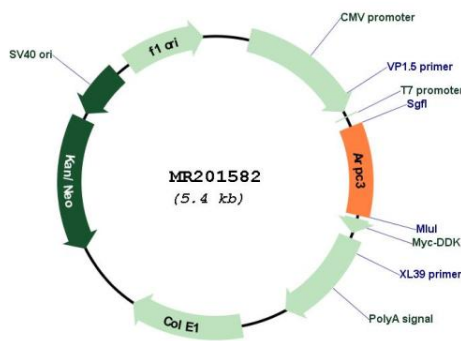
**UniProt ID:** [Q9JL76](#)

**Cytogenetics:** 5 F

**MW:** 20.5 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for MR201582