

Product datasheet for **RR208810**

Arpc5 (NM_001025717) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Arpc5 (NM_001025717) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Arpc5
Synonyms: MGC116419
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR208810 representing NM_001025717
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGAAGAACACGGTGTCTGCGGCCCGCTCCGGAAGGTGGACGTGGACGAATATGATGAGAACAAGT
TCGTGGACGAGGAGGACGGCGGATGGCCAGGCCGGCCGACGAGGGGAGGTGGACTCATGCCTACG
GCAAGGAAACATGACCGCTGCCCTACAGCCGCTCTGAAAAACCCCCCATTAACACAAAGAGCCAGGCA
GTGAAGGACCGGGCAGGCAGCATCGTCTTGAAGGTGCTCATCTCCTTTAAAGCTAATGATATTGAAAAGG
CTGTTCAGTCTCTGGACAAGAATGGCGTGGACCTCCTAATGAAGTATATTTATAAAGGCTTTGAGAGCCC
GTCTGACAATAGCAGCGCTATGTTACTACAGTGGCATGAAAAGGCACTTGCTGCTGGAGGAGTAGGGTCT
ATCGTTCTGTTTTGACTGCAAGAAAAACCGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR208810 representing NM_001025717
Red=Cloning site Green=Tags(s)

MSKNTVSSARFRKVDVDEYDENKFVDEEDGGDQAGPDEGEVDSCLRQGNMTAALQAALKNPPINTKSQA
VKDRAGSIVLKVLSFKANDIEKAVQSLDKNGVDLLMKYIYKGFESPSDNSSAMLLQWHEKALAAGGVGS
IVRVL TARKTV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

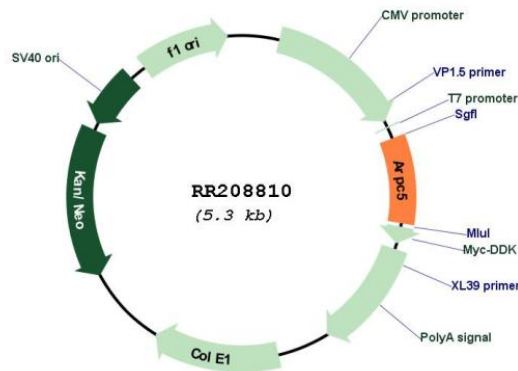


[View online »](#)

Cloning Scheme:



Plasmid Map:



ACCN: NM_001025717

ORF Size: 453 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_001025717.1, NP_001020888.1</u>
RefSeq Size:	1778 bp
RefSeq ORF:	456 bp
Locus ID:	360854
UniProt ID:	<u>Q4KLF8</u>
Cytogenetics:	13q21
MW:	16.3 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]