

## Product datasheet for **RR201798**

### **Arpc1b (NM\_019289) Rat Tagged ORF Clone**

#### Product data:

Product Type: Expression Plasmids  
Product Name: Arpc1b (NM\_019289) Rat Tagged ORF Clone  
Tag: Myc-DDK  
Symbol: Arpc1b  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
Cell Selection: Neomycin  
ORF Nucleotide Sequence: >RR201798 representing NM\_019289  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTACCACAGCTTCTCGTGGAAACCCATCAGCTGCCATGCCTGGAACAAGGACCGTACTCAGATCG  
CCATCTGCCCCAACCAACACGAGGTGCACATCTACGAGAAGAGCGGTGCCAAGTGAACAAGGTGCACGA  
GCTCAAGGAGACAACGGGCAGGTGACAGGCATCGACTGGGCCCGGAGAGTAACCGCATTGTGACCTGC  
GGCACAGACCGCAATGCCATATGTGTGGACGCTGAAGGGCCGCACGTGGAAGCCCACGCTGGTCATCCTTC  
GGATTAATCGAGCTGCCCGCTGCGTGGCTGGGCCCCCAATGAGAACAAGTTCGCCGTGGCAGTGGCTC  
CCGTGTCAATTCATCTGTTATTTTGGCAGGAGAATGACTGGTGGGTGTGCAAACACATCAAAAAGCCC  
ATCCGCTCCACTGTCTTAGCCTGGACTGGCACCCCAACAACGTGCTCCTGGCTGCAGGCTCCTGTGACT  
TCAAGTGCAGGATCTTCTGCCTATATCAAGGAGGTGGAGAACGGCCAGCCCCACACCGTGGGGCTC  
CAAGATGCCCTTTGGGGAGCTGATGTTGAATCGAGCAGCAGCTGTGGCTGGGTGCATGGTGTCTGCTTC  
TCGGCCGGTGGGAGCCGAGTTGCTTGGGTGAGCCATGACAGCACTGTGTGCCTGGTAGATGCTGAGAAGA  
AGATGGCCGTGGCAACCCTGGCCTCTGAGACATTACCGCTCCTGGCCATCACCTTCATCACAGAAAATAG  
TCTCGTGGCAGCGGGCCACGACTGCTTCCCGGTGCTGTTACCTATGACAACGCTGCGGGGACATTGAGC  
TTTGGTGGCCGGCTGGATGTGCCAAGCAGAAGTCCCAGCGTGGCCTGACAGCCCAGAGCGCTTCCAGA  
ACCTCGACAAGAAGGCCAGCTCTGAAGGGGGTGCAGCCACAGGGGCTGGCCTGGATTCACTGCACAAGAA  
CAGCGTCAGTCAAATCTCGGTGCTCAGCGGGGCAAGGCCAAGTGTGCTCGCAGTTCTGCACCACAGGCATG  
GACGGTGGCATGAGCATCTGGGATGTGAAGAGCTTGGAGTCAGCCTTGAAGGACCTGAAGATCAGA

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR201798 representing NM\_019289  
Red=Cloning site Green=Tags(s)

MAYHSFLVEPISCHAWNKDRTQIAICPNNHEVHIYEKSGAKWNVHELKEHNGQVTGIDWAPESNRIVTC  
 GTDRNAYVWTLKGRTWKPTLVILRINRAARCVRWAPNENKFVAVGSGSRVISICYFEQENDWWVCKHIKPP  
 IRSTVLSLDWHPNNVLLAAGSCDFKCRIFSAIYKEVEERPAPTWPWGSKMPFGELMFESSSSCGWVHGVCF  
 SAGGSRVAWVSHDSTVCLVDAEKKMAVATLASETLPLLAITFITENSLVAAGHDCFPVLFYDNAAGTLS  
 FGRLDVPKQNSQRGLTARERFQNLDDKASSEGAATGAGLDSLHKNSVSQISVLSGGKAKCSQFCTTGM  
 DGGMSIWDVKSLESALKDLKIR

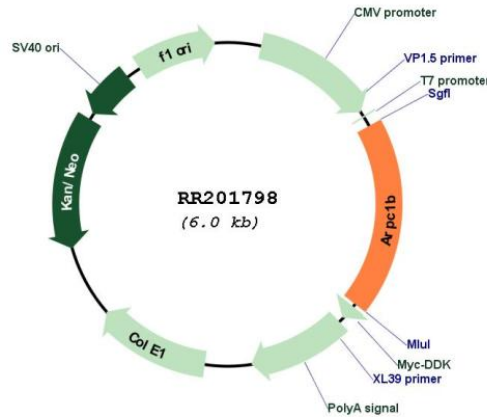
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_019289

<b>ORF Size:</b>	1116 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_019289.2</a> , <a href="#">NP_062162.1</a>
<b>RefSeq Size:</b>	1536 bp
<b>RefSeq ORF:</b>	1119 bp
<b>Locus ID:</b>	54227
<b>UniProt ID:</b>	<a href="#">O88656</a>
<b>Cytogenetics:</b>	12p11
<b>MW:</b>	41.1 kDa
<b>Gene Summary:</b>	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]