

## Product datasheet for **MR205748**

### Arpc1b (NM\_023142) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arpc1b (NM_023142) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arpc1b
Synonyms:	41kDa; AA408064; AA408534; AA571392; AF007010; AW208418; L72; p41-ARC; SOP2Hs
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR205748 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCTACCACAGCTTCTGGTGGAGCCCATCAGCTGCCATGCCTGGAACAAGGACCGTACTCAGATCG  
CCATCTGCCCAACAACCATGAGGTGCACATCTATGAGAAGAGCGGTGCCAAGTGAACAAGGTGCACGA  
GCTGAAGGAGCACAACGGGCAGGTGACAGGCATCGACTGGGCCCTGAGAGTAACCGCATTGTGACCTGC  
GGCAGCGACCGCAATGCCTATGTGTGGACGCTGAAGGGCCGACGTTGGAAGCCACACTGGTCATCCTCC  
GGATCAATCGAGCTGCCCGCTGTGTGCGCTGGGCCCAATGAGAACAAGTTCGCCGTGGCAGCGGCTC  
CCGGGTCAATTCATCTGTTATTTTGGCAGGAGAATGACTGGTGGGTGTGCAAACACATCAAAAAGCCC  
ATCCGCTCCACAGTGCTCAGCCTGGACTGGCATCCCAACAACGTGCTCCTGGCAGCAGGCTCCTGTGACT  
TCAAGTGCAGGATCTTCTCTGCCTATATCAAGGAGGTGGAAGAACGGCCAGCCCCACACCGTGGGGCTC  
CAAGATGCCCTTTGGGGAGCTGATGTTTGAATCGAGCAGCAGCTGTGGCTGGGTGCATGGGGTCTGCTTC  
TCGGCCAGTGGGAGCCGAGTTGCTTGGTCAGCCATGACAGCACTGTATGCCTGGTAGACTGACAAGA  
AAATGGCCGTGGCAACCCTGGCCTCTGAGACATTACCACTCCTGGCTGTACCTTTATCACAGAAAATAG  
TCTAGTGGCAGCGGGCCAGACTGCTTCCCGGTGCTGTTTACCTATGACAATGCTGCAGTGACACTGAGC  
TTCGGTGGCCGGCTGGATGTACCAAGCAGAGCTCCCAGCGTGGCATGACAGCCCAGAGCGCTTCCAGA  
ACCTGGACAAGAAGGCCAGCTCTGAGGGGGTGCAGCCACTGGGGCCGGCCTGGATTCACTGCACAAGAA  
CAGTGTGACGCAATCTCGGTGCTCAGCGGGGCAAGGCCAAGTGTGCTCACAGTTCTGCACTACAGGCATG  
GATGGCGCATGAGCATCTGGGACGTGAAGAGCCTGGAGTCAGCCTTGAAGGACCTGAAAATCAA

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205748 protein sequence  
Red=Cloning site Green=Tags(s)

MAYHSFLVEPISCHAWNKDRTQIAICPNNHEVHIYEKSGAKWNVHELKEHNGQVTGIDWAPESNRIVTC  
 GTDRNAYVWTLKGRTWKPTLVILRINRAARCVRWAPNENKFAVSGSRVISICYFEQENDWWVCKHIKPK  
 IRSTVLSLDWHPNNVLLAAGSCDFKCRIFSAIYKEVEERPAPTWPWGSKMPFGELMFESSSSCGWVHGVCF  
 SASGSRVAWVSHDSTVCLVDADKKMAVATLASETLPLLAVTFITENSLVAAGHDCFPVLFYDAAVTLTSL  
 FGRLDVPKQSSQRGMTARERFQNLDDKASSEGAATGAGLDSLHKNSVSIQISVLSGGKAKCSQFCTTGM  
 DGGMSIWDVKSLESALKDLKIK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

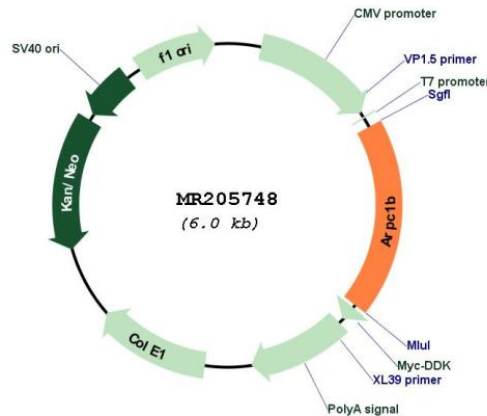
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_023142

<b>ORF Size:</b>	1119 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_023142.1</a> , <a href="#">NM_023142.2</a> , <a href="#">NP_075631.1</a>
<b>RefSeq Size:</b>	1555 bp
<b>RefSeq ORF:</b>	1119 bp
<b>Locus ID:</b>	11867
<b>UniProt ID:</b>	<a href="#">Q9WV32</a>
<b>Cytogenetics:</b>	5 G2
<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]