

## Product datasheet for **RR212853**

### Arpc1a (NM\_031146) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Arpc1a (NM\_031146) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Arpc1a  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR212853 representing NM\_031146  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTCTGCATCAGTTTCTGCTAGAGCCAATCACCTGCCATGCCTGGAACAGGGATCGGACCCAGATCG  
CACTGAGCCCAATAATCATGAAGTGCACATCTACAAGAAGAATGGGAGTCAGTGGACGAAAGCTCACGA  
GCTGAAGGAACATAACGGACACATCACAGTATTGACTGGCTCCTAAGAGCGACCGTATTGTCACTTGT  
GGGGCGGACCGCAACGCCTATGTCTGGAGTCAGAAAGATGGCATCTGGAAGCCGACCCTGGTGATCCTGA  
GGATTAACCGTGCAGCCACTTTCGTGAAGTGGTCTCCACTCGAGAACAAGTTTGTGTGGGAGTGGAGC  
CCGGCTCATCTGTCTGCTACTTTGAGTCTGAAAATGACTGGTGGTCCAGCAAGCACATTAAGAAGCCG  
ATCCGCTCCACAGTCTCAGCCTGGACTGGCATCCCAACAACGTTTTGCTGGTGCAGGCTCCTGTGACT  
TCAAATGCAGAGTATTTTCGGCCTACATCAAAGAGGTGGATGAGAAGCCAGCCAGCACGCCCTGGGGCAG  
CAAGATGCCTTTTGGTCAGCTGATGTCTGAGTTTGGTGGCAGTGGCACTGGTGGTGGTGCACGGGGTC  
AGCTTCTCTGCCAGTGGGAGCCGGCTGGCTGGGTGAGCCAGCACAGCAGTGTCTGTCGCTGATGCCT  
CAAAAAGTGTGCAGGTTTCAACTCTGAGAACGGAGTTCCTGCCGCTGCTCAGTGTGTCAATTTGTCTCAGA  
GAACAGCGTTGTGGCTGCCGGCCATGACTGCTGCCGATGCTCTTAACTACGATGACCGTGGCTGTTTG  
ACCTTTGTGTCCAAGCTAGACGTCCCAAAACAGAGCATCCAGCGCAACATGTCTGCTATGGAACGCTTCC  
GTAACATGGATAAGAGGGCCACTACCGAGGACCGCAACACAGCCTTGAAAACACTGCACCAGAACAGCAT  
CACTCAAGTGTCTATTTATGAAGTGGACAAGCAAGATTGTCGAAATTTGCACTACTGGCATCGATGGA  
GCCATGACAATCTGGATTTCAAGACTCTAGAGTCTTCCATCCAGGGTCTCCGGATAATG

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR212853 representing NM\_031146  
Red=Cloning site Green=Tags(s)

MSLHQFLLEPITCHAWNDRDTQIALSPNNHEVHIYKKNQSQWTKAHELKEHNGHITGIDWAPKSDRIVTC  
 GADRNAVYVWSQKDGWIKPTLVILRINRAATFVKWSPLENKFVAVGSGARLISVCYFESENDWWVSKHIKKP  
 IRSTVLSLDWHPNNVLLAAGSCDFKCRVFSAYIKEVDEKPASTPWGSKMPFGQLMSEFFGGSGTGGVWHGV  
 SFSASGSR LAWVSHDSTVSVADASKSVQVSTLRTEFLPLLVSFVSENSVVAAGHDCCPMLFNYYDDRGCL  
 TFVSKLDVPKQSIQRNMSAMERFRNMDKRATTEDRNTALETLHQNSITQVSIYEVDKQDCRKFCTTGIDG  
 AMTIWDFKTLESSIQGLRIM

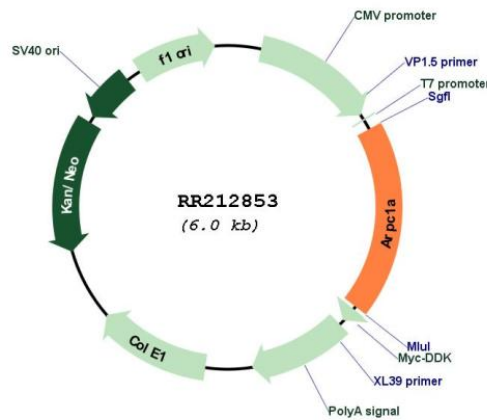
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_031146

<b>ORF Size:</b>	1110 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_031146.2</a> , <a href="#">NP_112408.1</a>
<b>RefSeq Size:</b>	1627 bp
<b>RefSeq ORF:</b>	1113 bp
<b>Locus ID:</b>	81824
<b>UniProt ID:</b>	<a href="#">Q99PD4</a>
<b>Cytogenetics:</b>	12p11
<b>MW:</b>	41.6 kDa
<b>Gene Summary:</b>	Probably functions as component of the Arp2/3 complex which is involved in regulation of actin polymerization and together with an activating nucleation-promoting factor (NPF) mediates the formation of branched actin networks (By similarity). 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 (By similarity). [UniProtKB/Swiss-Prot Function]