

## Product datasheet for **MG217895**

### Actr3 (NM\_023735) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Actr3 (NM_023735) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Actr3
Synonyms:	1200003A09Rik; Arp3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG217895 representing NM_023735 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGGACGGCTGCCGCCTGTGTGGTGGACTGTGGCACGGGATATACAAAACAGGATATGCTGGAA  
ATACAGAGCCACAGTTTATCATCCCATCATGTATTGCCATTAAAGAGTCTGCAAAAGTGGGTGACCAAGC  
CCAGAGGAGGGTATGAAAGGCGTGGATGACCTAGACTTCTTCATTGGTATGAAGCAATAGAAAAGCCC  
ACATATGCAACAAAGTGCCAATTCGCCATGGTATAGTTGAAGACTGGGACTTAATGAAAAGTTTATGG  
AGCAAGTGATTTTTAAATATTTAAGGGCAGAACCTGAAGATCATTACTTTCTTTGACTGAACCTCCACT  
GAATACTCCAGAAAACAGGGAATACTGCTGAAATAATGTTTGAATCCTTCAATGTTCCAGGCTTGATC  
ATTGCTGTGCAGGCTGTTCTTGCCCTTAGCTGCATCCTGGACCTCAAGACAAGTAGGAGAGCGGACGCTGA  
CGGGTACAGTAATAGACAGTGGAGACGGAGTCACTCATGTATTCTGTGGCTGAAGGATATGTTATCGG  
CAGCTGTATTAACACATTCCAATCGCAGGAAGAGATATAACATATTTTATTCAGCAACTGCTGCGAGAC  
CGAGAAGTAGGAATCCCTCCTGAGCAGTCTTGAAAACGCGAAAGCAGTGAAGGAACGCTACAGTTATG  
TCTGCCAGATTTAGTAAAAGAGTTTAAACAAGTATGACACCGATGGGTCAAAGTGGATCAAACAGTACAC  
CGGAGTCAACGCCATCTCAAAGAAAGAGTTTTCTATTGATGTTGGCTATGAGCGATTCTGGGACCCGAG  
ATCTTTTTCCATCCAGAGTTTGCTAATCCAGATTTTACACAACCTATCTCAGAAGTTGATAGTGAAGTCA  
TTCAGAATTGCCCATGATGTCCGGCGTCTCTACAAGAACATTGCTCTCTGTTGGTTCACCAT  
GTTCCAGGACTTTGGACGTCGTTTGCAAAGAGATTTGAAGAGAAGTGTAGATGCCAGGCTGAAGTTAAGC  
GAGGAGCTGAGTGGTGGTAGATTGAAGCCCAAGCCTATTGATGTACAAGTTATTACACCATATGCAGC  
GGTATGCAGTCTGGTTGGAGGGTCAATGCTGGCTTCCACGCCTGAGTTCTACCAAGTATGCCACACCAA  
AAAGGATTATGAAGAAATTGGACCTAGCATTGTGCTCACAATCCAGTGTGGAGTCATGTCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG217895 representing NM\_023735  
 Red=Cloning site Green=Tags(s)

MAGRLPACVVDCGTGYTKLGYAGNTEPQFIIPSCIAIKESAKVGDQAQRRVMKGVDLDFFIGDEAIEKP  
 TYATKWPIRHGIVEDWDLMERFMEQVIFKYLRAEPEDHYFLLTEPLNTPENREYTAEIFESFNVPGLY  
 IAVQAVLALAASWTSRQVGERTLTGTVIDSGDGVTHVIPVAEGYVIGSICKIHIPIAGRDIYFIQQLLRD  
 REVGIPPEQSLETAKAVKERYSYVCPDLVKEFNKYDTDGSKWIKQYTGVNAISKKEFSIDVGYERFLGPE  
 IFFHPEFANPDFTQPISEVVDEVIQNCPIDVRRPLYKNIIVLGGSTMFRDFGRRLQRDLKRTVDARLKLS  
 EELSGGRLKPKPIDVQVITHMQRYAVWFGGSMFASTPEFYQVCHTKKDYEEIGPSICRHNPFVFGVMS

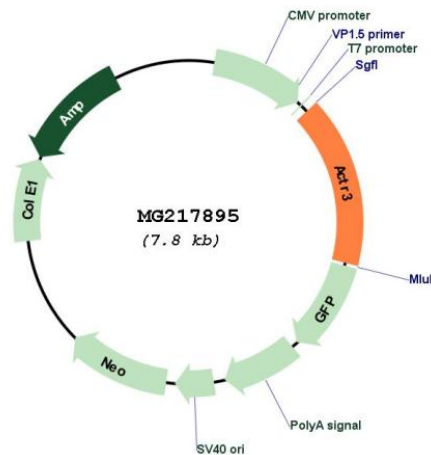
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_023735

<b>ORF Size:</b>	1254 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_023735.2</a> , <a href="#">NP_076224.1</a>
<b>RefSeq Size:</b>	2746 bp
<b>RefSeq ORF:</b>	1257 bp
<b>Locus ID:</b>	74117
<b>UniProt ID:</b>	<a href="#">Q99JY9</a>
<b>Cytogenetics:</b>	1 E2.3
<b>Gene Summary:</b>	ATP-binding 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. Seems to contact the pointed end of the daughter actin filament. 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). Plays a role in ciliogenesis.[UniProtKB/Swiss-Prot Function]