

Product datasheet for **MR229801**

Actr3 (NM_001205385) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Actr3 (NM_001205385) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Actr3
Synonyms:	1200003A09Rik; Arp3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR229801 representing NM_001205385 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGGACGGCTGCCGCCTGTGTGGTGGACTGTGGCACGGGATATACAAAACAGGATATGCTGGAA
ATACAGAGCCACAGTTTATCATCCCATCATGTATTGCCATTAAGAGTCTGCAAAAGTGGGTGACCAAGC
CCAGAGGAGGGTATGAAAGGCGTGGATGACCTAGACTTCTTCATTGGTATGAAGCAATAGAAAAGCCC
ACATATGCAACAAAGTGCCAATTCGCCATGGTATAGTTGAAGACTGGGACTTAATGAAAAGTTTATGG
AGCAAGTGATTTTTAAATATTTAAGGGCAGAACCTGAAGATCATTACTTTCTTTGACTGAACCTCCACT
GAATACTCCAGAAAACAGGGAATACTGCTGAAATAATGTTGAATCCTTCAATGTTCCAGGCTTGATC
ATTGCTGTGCAGGCTGTTCTTGCCCTTAGCTGCATCCTGGACCTCAAGACAAGTAGGAGAGCGGACGCTGA
CGGGTACAGTAATAGACAGTGGAGACGGAGTCACTCATGTATTCTGTGGCTGAAGGATATGTTATCGG
CAGCTGTATTAACACATTCCAATCGCAGGAAGAGATATAACATATTTTATTCAGCAACTGCTGCGAGAC
CGAGAAGTAGGAATCCCTCCTGAGCAGTCTTGGAAACTGCGAAAGCAGTGAAGGAACGCTACAGTTATG
TCTGCCAGATTTAGTAAAAGAGTTTAAACAAGTATGACACCGATGGGTCAAAGTGGATCAAACAGTACAC
CGGATTTCAACGCCATCTCAAAGAAAGAGTTTCTATTGATGTTGGCTATGAGCGATTCTGGGACCCGAG
ATCTTTTTCCATCCAGATTTGCTAATCCAGATTTTACACAACCTATCTCAGAAGTTGATAGTGAAGTCA
TTCAGAATTGCCCATTTGATGTCCGGCGTCTCTACAAGAACATTGCTCTCTGTTGGTTC AACCAT
GTTCCAGGACTTTGGACGTCGTTTGC AAAAGAGATTTGAAGAGA ACTGTAGATGCCAGGCTGAAGTTAAGC
GAGGAGCTGAGTGGTGGTAGATTGAAGCCCAAGCCTATTGATGTACAAGTTATTACACCATATGCAGC
GGTATGCAGTCTGGTTGGAGGGTCAATGCTGGCTTCCACGCCTGAGTTCTACCAAGTATGCCACACCAA
AAAGGATTATGAAGAAATTGGACCTAGCATTTGCTGCACAAATCCAGTGTGGAGTCATGTCC

ACGGTACGGCGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >MR229801 representing NM_001205385
 Red=Cloning site Green=Tags(s)

MAGRLPACVVDCGTGYTKLGYAGNTEPQFIIPSCIAIKESAKVGDQAQRRVMKGVDLDFFIGDEAIEKP
 TYATKWPIRHGI VEDWDLMERFMEQVIFKYLRAEPEDHYFLLTEPLNTPENREYTAEIFESFNVPGLY
 IAVQAVLALAASWTSRQVGERTLTGTVIDSGDGVTHVIPVAEGYVIGSCKIHIPIAGRDIYFIQQLRD
 REVGIPPEQSLETA KAVKERYSYVCPDLVKEFNKYD TDGSKWIKQYTG VNAISKKEFSIDVGYERFLGPE
 IFFHPEFANPDFTQPISEVVDEVIQNCPI DVRRPLYKNI VL SGGSTMFRDFGRRLQRDLKRTVDARLKL
 EELSGRLKPKPIDVQVI THMQRYAVWFGG SMLASTPEFYQVCHTKKDYEEIGPSICRHNPFVFGVMS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001205385

ORF Size: 1254 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:

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: [NM_001205385.1](#), [NP_001192314.1](#)

RefSeq Size: 2554 bp

RefSeq ORF: 1257 bp

Locus ID: 74117

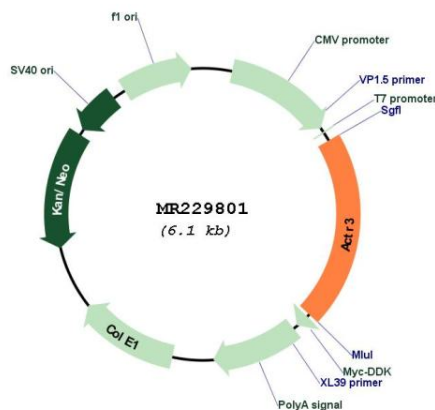
UniProt ID: [Q99JY9](#)

Cytogenetics: 1 E2.3

MW: 47.4 kDa

Gene Summary: 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]

Product images:



Circular map for MR229801