

Product datasheet for **MG206161**

Actr2 (NM_146243) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Actr2 (NM_146243) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Actr2
Synonyms:	4921510D23Rik; AA409782; Arp2; D6Ertd746e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG206161 representing NM_146243 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACAGCCAGGGCAGGAAGGTGGTGGTGTGCGACAACGGCACTGGGTTTGTGAAGTGTGGATATGCAG
GCTCTAATTTCCAGAACACATCTCCAGCTTTGGTTGGAAGACCTATTATCAGATCAACCACCAAAGT
GGGAAACATTGAAATCAAGGACCTTATGGTTGGTGTGATGAGGCAAGTGAGCTGCGTTCCATGTTGGAAGT
AACTACCCTATGGAGAATGGCATCGTGCGAATTGGGATGACATGAAGCACCTGTGGACTACACATTTG
GACCAGAGAACTCAATATAGACACCAGAACTGCAAGATTTTACTTACAGAACCTCCCATGAATCCAAC
CAAAAACAGAGAGAAGATTGTAGAGGTAATGTTTGAAACTTACCAGTTTTCTGGTGTGTATGTAGCCATC
CAGGCAGTTCTGACTTTGTATGCTCAAGGTTTACTGACTGGTGTAGTAGTGGACTCTGGAGATGGCGTCA
CTCACATTTGCCAGTATATGAAGGCTTTTCTCTCCCTCACCTTACAAGGAGGCTGGATATTGCTGGGAG
GGATATTACCAGGTATCTTATCAAGCTGCTGCTGTTGCGAGGATATGCCTTCAACCATTCTGCTGATTTT
GAGACAGTTCGCATGATTAAGGAAAACTTTGTTATGTGGTTACAATATTGAGCAGGAGCAGAAGCTGG
CCTTAGAGACCACAGTGTAGTTGAGTCATATACACTCCAGATGGACGTATCATTAAGGTTGGAGGAGA
ACGATTTGAAGCACCAGAGGCTTTATTTACGCTCATTTGATCAATGTCGAGGGGTTGGTGTGCTGAA
CTGCTTTTTAACACAATCCAGGACCCGACATTTGATACCAGATCTGAATTTTACAAGCACATTTGCTTTT
CTGGAGGTTCTACCATGTATCCTGGCCTGCCATCGAGGTTGGAACGAGAGCTTAAACAGCTTTACTTAGA
ACGAGTCTGAAAAGGAGATGTGGA AAACTTTCAAATTTAAGATCCGAATTGAAGACCCACCCCGCAGG
AAGCACATGTTGTTCTTGGGTGGCGAGTCTAGCAGACATCATGAAAGACAAAGACAACCTTTGGATGA
CCAGACAAGAGTACCAAGAAAAGGGTGTCCGTGTGCTGGAGAACTTGGTGTAACTGTTCTGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG206161 representing NM_146243
 Red=Cloning site Green=Tags(s)

MDSQGRKVVVCDNGTGFVKCGYAGSNFPEHIFPALVGRPIIRSTTKVGNIEIKDLMVGDEASELRSMLEV
 NYPMENGIVRNWDDMKHLWDYTFGPEKLNIDTRNCKILLTEPPMNPTKNREKIVEVMFETYQFSGVYVAI
 QAVLTLYAQGLLTGVVDSGDGVTHICPVYEGFSLPHLTRRLDIAGRDITRYLIKLLLRGYAFNHSADF
 ETVRMIKEKLCYVGYNIEQEQLALETTVLVESYTLPDGRIKIKVGERFEAPEALFQPHLINVEGVGVAE
 LLFNTIQAADIDTRSEFYKHIVLSGGSTMYPGLPSRLERELKQLYLERVLKGDVEKLSKFKIRIEDPPRR
 KHMVFLGGAVLADIMKDKDNFWMTRQEYQEKGVRVLEKLGVTVR

TRTRPLE - GFP Tag - V

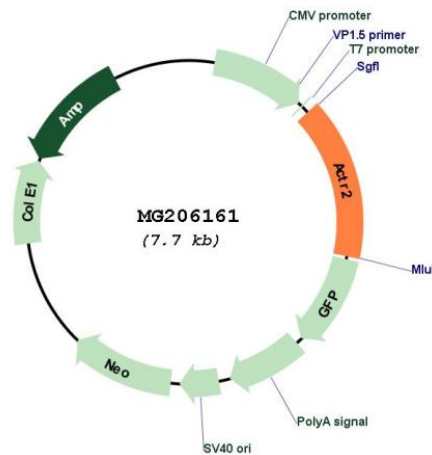
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN:

NM_146243

ORF Size:	1182 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:	<ol style="list-style-type: none">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_146243.1 , NP_666355.1
RefSeq Size:	3659 bp
RefSeq ORF:	1185 bp
Locus ID:	66713
UniProt ID:	P61161
Cytogenetics:	11 12.88 cM
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).[UniProtKB/Swiss-Prot Function]