

Product datasheet for RN207334

Actr2 (NM_001009268) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
 Product Name: Actr2 (NM_001009268) Rat Untagged Clone
 Tag: Tag Free
 Symbol: Actr2
 Synonyms: MGC95085
 Vector: pCMV6-Entry (PS100001)
 E. coli Selection: Kanamycin (25 ug/mL)
 Cell Selection: Neomycin
 Fully Sequenced ORF: >RN207334 representing NM_001009268
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGGACAGCCAGGGCAGGAAGGTGGTGGTGTGCGACAACGGCACTGGGTTTGTGAAGTGTGGATATGCAG
 GCTCTAACTTTCCAGAACACATCTCCAGCTTTGGTTGGAAGACCTATTATCAGATCAACCACAAAGT
 GGGAAACATTGAAATCAAGGATCTCATGGTTGGCGATGAGGCAAGTGAAGTGCCTCCATGTTGGAGGTG
 AACTACCCGATGGAGAACGGCATCGTGCGCAACTGGGACGACATGAAGCACCTGTGGACTACACATTCCG
 GGCCAGAGAAGCTCAATATAGACACCAGGAGCTGCAAGATCTTACTTACAGAACCCCAATGAATCCAAC
 CAAGAACAGAGAGAAGATTGTCGAGGTAATGTTTGAACCTTACCAGTTTTCTGGTGTGTATGTAGCCATC
 CAAGCAGTTCTGACTTTGTATGCTCAAGGTTTACTGACTGGTGTGGTAGTGGACTCTGGAGATGGTGTCA
 CTCACATTTGCCAGTATATGAAGGCTTTCCCTCCCTCACCTTACAAGGAGGCTGGATATTGCTGGGAG
 GGATATTACCAGGTATCTTATCAAGCTGCTGCTGTTGCGAGGATATGCCTTCAACCATTCTGCTGACTTT
 GAGACAGTTCGCATGATTAAGAAAAAATTTGTTATGTGGTTACAATATTGAGCAAGAGCAGAAGCTGG
 CCTTAGAGACCACAGTGCTAGTTGAGTCATACACTCTCCAGATGGACGTATTATTAAGTTGGAGGAGA
 AAGATTTGAAGCACCAGAAGCTTTATTTACGCCTCATTTGATCAATGTTGAGGGGTTGGTGTGCTGAA
 TTGCTTTTTAACACAATCCAGGCAGCCGACATTGATACCAGATCTGAATTTTATAAGCACATTGTGCTTT
 CTGGAGGTTCTACCATGTATCCTGGCCTGCCATCGAGGTTGGAACGAGAGCTTAAACAGCTTTACCTAGA
 ACGAGTTCTGAAAGGAGATGTGGAGAACTTTGAAAATTAAGATCCGCATTGAAGACCCGCTCGCAGG
 AAGCACATGGTGTCTTGGGTGGCGCAGTCTAGCAGACATCATGAAAGACAAAGACAACCTCTGGATGA
 CCAGACAAGAGTACCAAGAAAAGGGTGTCCGTGTGCTGGAGAACTCGGTGTGACTGTTCGAT**AA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI



ACCN:	NM_001009268
Insert Size:	1185 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_001009268.1</u> , <u>NP_001009268.1</u>
RefSeq Size:	1326 bp
RefSeq ORF:	1185 bp
Locus ID:	289820
UniProt ID:	<u>Q5M7U6</u>
Cytogenetics:	14q22
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]