

## Product datasheet for **RR204782**

### Actn1 (NM\_031005) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Actn1 (NM_031005) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Actn1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR204782 representing NM\_031005  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACCATTATGATTCCAGCAGACCAATGACTATATGCAGCCTGAAGAGGACTGGGACCGGGACCTGC  
 TCCTGGATCCGGCTGGGAGAAGCAGCAGAGAAAAGACCTTACGGCCTGGTGCAACTCCCACCTGCGCAA  
 AGCAGGGACCCAGATTGAGAACATTGAAGAGGACTTCCGAGATGGCCTGAAGCTCATGCTGCTCCTGGAG  
 GTCATCTCAGGTGAGCGTTTGGCCAAGCCAGAGAGAGGCAAGATGCGAGTGCACAAGATCTCCAACGTCA  
 ACAAGGCCCTGGATTTTCATAGCCAGCAAAGGGTCAAGCTGGTGTCCATTGGAGCTGAAGAAATTGTGGA  
 CGGGAATGTGAAGATGACCCTGGGCATGATCTGGACCATCATCCTTCGTTTTGCCATCCAAGACATCTCT  
 GTGGAAGAGACATCAGCTAAAGAAGGGTGTCTCTGTGGTGTGAGAGGAAGACAGCCCCATAAAAATG  
 TCAACATCCAAAACCTCCACATCAGTTGGAAGGATGGTCTTGGTTTCTGTGCCTTGATCCACCGGCACCG  
 GCCCGAGTTGATTGACTATGAAAAGCTTCGAAAGGATGATCCACTCACAACCTGAACACAGCCTTTGAT  
 GTGGCAGAGAGATACCTGGACATTCGAAAGATGCTGGATGCAGAAGACATCGTCGGAACGCCCGGCCAG  
 ATGAGAAAAGCCATTATGACCTATGTGTCTAGCTTCTACCATGCCTTCTCTGGAGCCCAGAAGCGGAAAC  
 AGCAGCCAATCGCATCTGTAAAGTGTGGCCGTCAATCAAGAGAAATGAACAGCTTATGGAAGACTATGAG  
 AAGCTGGCCAGTGATCTGTTAGAGTGGATCCGCCGCACCATCCCATGGCTGGAGAATCGGGTGCCCGAGA  
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 GGTGCAGGAGAAGTGCCAGCTGGAGATCAACTTCAACACACTGCAGACCAAGCTGCGGCTAAGCAACCGG  
 CCTGCCTTCATGCCCTCCGAGGGCAGGATGGTCTCGGATATCAACAATGCCTGGGGCTGCCTGGAACAGG  
 CAGAGAAGGGCTACGAGGAGTGGTTGTGAATGAGATCCGGAGGCTAGAGAGGTTGGACACCTGGCAGA  
 GAAGTTCCGGCAGAAGGCCCTCCATCCATGAAGCCTGGACAGACGGCAAAGAAGCCATGCTGCGGCAGAAG  
 GATTATGAGACGGCCACCTTGTCCGAGATCAAGGCCCTACTCAAGAAGCACGAGGCTTTGAGAGTGACC  
 TGGCTGCCACCAGGACCGCTGGAGCAGATCGCGGCCATTGCCAGGAGCTTAATGAGCTGGACTATTA  
 TGACTACCAAGTGTCAACGCTCGATGCCAAAAGATCTGTGACCAGTGGGACAATCTAGGGGCCCTGACT  
 CAGAAGCGGAGGGAAGCTTTAGAGCGAACAGAGAAGCTGCTGGAGACCATCGACCAGCTATACTTGGAGT  
 ACGCCAAGAGGGCTGCACCCTTCAACAACCTGGATGGAGGGAGCCATGGAGGACCTTCAAGACACCTTCAT  
 CGTACATACCATTGAGGAGATCCAGGGACTGACCACAGCCCATGAGCAGTTCAAGGCTACCTCCCGGAT  
 GCAGACAAGGAGCGCCTGGCCATCCTGGGCATCCACAATGAAGTGTCCAAGATTGTCAGACCTATCATG  
 TCAACATGGCAGGCACCAACCCCTATACAACCATCACACCTCAGGAGATCAATGGCAAATGGGACCATGT  
 ACGGCAGCTGGTCCCCGGAGGGACAGGCTCTAACAGAGGAGCACTCGAGGCAGCAGCACAACGAGAGG  
 TTACGCAAGCAGTTTGGGGCACAAGCCAATGTCATCGGACCCTGGATCCAGACCAAGATGGAGGAGATTG  
 GGAGGATCTCCATTGAGATGCACGGTACCCTGGAGGACCAACTCAGCCACCTGCGGCAGTATGAAAAGAG  
 CATCGTCAATTATAAGCCAAAGATTGACCAGCTGGAGGGCGACCACCAGCTCATCCAGGAAGCACTTATC  
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 TTGCCAGGACCATCAATGAAGTGGAGAACCAGATCTTGACCCGGATGCCAAAGGCATCAGCCAGGAACA  
 GATGAACGAATTCGGGGCTCCTTCAACCCTTTGACCGGGATCACTCCGGCACGTTGGGTCCCGAAGAG  
 TTCAAAGCCTGCCTCATCAGCTTGGGTTATGATATTGGCAACGACCCCAAGGGAGAGGCAGAATTTGCC  
 GGATCATGAGCATTGTAGACCCCAACCGCTTGGGGTAGTGACATTCCAGGCCTTCATCGACTTCATGTC  
 CCGAGAGACGGCTGACACAGATACAGCGGATCAGGTGATGGCTTCTTCAAGATCCTGGCTGGAGATAAG  
 AATTACATCACCGGGGATGAGCTGCGCCGAGCTGCCACCTGACCAAGCCGAGTACTGCATCGCGAGAA  
 TGGCCCCCTACGCGGGCCCTGACTCCGTGCCGGGTGCTCTAGACTACATGTCTTCTCCACGGCGCTGTA  
 CGGCGAGAGTGACCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR204782 representing NM\_031005  
 Red=Cloning site Green=Tags(s)

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MDHYDSQQTNDYMQPEEDWDRDLLLDPaweKQQRKFTTAWCNshLRKAGTQIENIEEDFRDGLKLMllLE
VISGERLAKPERGKMRVHKISNVNKALDFIASKGVKLVSIGAEEIVDGNVKMTLGMiWTIILRFAIQDIS
VEETSAKEGLLLWCQRKTAPYKNVNIQNFHISWKDGLGFCALiHRHRPELIDYgKLRKDDPLTNLNTAFD
VAERYLDIPKMLDAEDIVGTARPDEKAIMTYVSSFYHAFSGAQKAETAANRICKVLAVNQENEQLMEDYE
KLASDLLEWIRRTIPWLENRPENTMQAMQQKLEDFRDYRRLHKPPKVQEKCLEINFNTLQTKLRLSNR
PAFMPSEGRMVSDINNAWGCLEQAekGYEEWLLNEIRRLERLDHLAEKFRQKASiHEAWTDGKEAMLRQK
DYETATLSEIKALLKKHEAFESDLAAHQDRVEQIAAIAQELNELDYDSPSVNARCQKICDQWDNLGALT
QKRREALERTEKlLETIDQLYLEYAKRAAPFNNWMEGAMEDLQDTFIVHTIEEIQGLTTAHEQFKATLPD
ADKERLAILGIHNEVSKIvQTYHVNMAgTNPYTTITPQeINGKWDHVRQLVPRRDQALTEEHSRQQHNER
LRKQFGAQANVIGPWIQTkMEEIGRISIEMHGTLedQLSHLRQYEKSIVNYKPKIDQLEGDHQLIQEALI
FDNKHTNYTMEHIRVgWEQLLTTIARTINEVENQILTRDAKGISQEQMNEFRASFNHFDRDHSGLGPEE
FKACLISLGYDIGNDPQGEAEfARIMSIvDPNRLGVVTFQAFIDFMSRETADTDTADQVMASFKILAGDK
NYITGDELRRRELPPDQAEYCIARMAPYAGPDSVPGALDYMSFSTALYGESDL
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

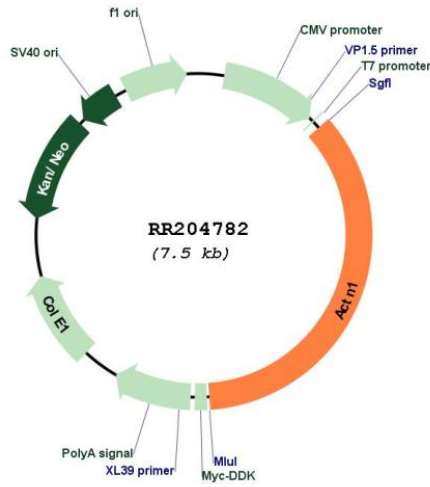
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



<b>ACCN:</b>	NM_031005
<b>ORF Size:</b>	2676 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_031005.3</a> , <a href="#">NP_112267.1</a>
<b>RefSeq Size:</b>	2956 bp
<b>RefSeq ORF:</b>	2679 bp
<b>Locus ID:</b>	81634
<b>UniProt ID:</b>	<a href="#">Q9Z1P2</a>
<b>Cytogenetics:</b>	6q24
<b>MW:</b>	103 kDa
<b>Gene Summary:</b>	F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein (By similarity).[UniProtKB/Swiss-Prot Function]