

## Product datasheet for **MR211156**

### Actn4 (NM\_021895) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Actn4 (NM_021895) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Actn4
Synonyms:	C77391
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR211156 representing NM\_021895  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGGACTACCACGCAGCGAACCAGGCGTACCAGTACGGCCCCAACAGCGCGCGGCAATGGCGCGG  
 GTGGCGCGGAAGCATGGGCGACTACATGGCCCAGGAGGATGACTGGGACCGGGACTGCTGTTGGACCC  
 GGCTGGGAGAAGCAGCAGCGCAAGACCTTACAGCCTGGTGCAACTCTCATCTTCGGAAGGCTGGCACT  
 CAGATCGAGAATATCGATGAGGACTTCAGGGATGGGCTCAAACCTATGCTTCTGTTGGAGGTCATTTGAG  
 GGGAGCGTTTGCCTAAGCCAGAGCGGGGAAGATGCGAGTGCACAAGATCAACAATGTAACAAAGCCCT  
 GGACTTCACTCGCCAGCAAGGGAGTCAAGCTGGTGTCCATCGGGCAGAAGAGATTGTGGATGGCAATGCA  
 AAGATGACCTGGGAATGATCTGGACCATCATCCTCAGATTTGCCATCCAGGACATCTCTGTGGAAGAGA  
 CCTCTGCTAAGGAAGGACTCCTCCTCTGGTGCCAGAGAAAAGACAGCCCCATATAAAAACGTCAACGTCCA  
 GAACCTCCATATCAGCTGGAAGGACGGGCTGGCCTTCAATGCACTCATCCACCGGCACAGGCCTGAGCTG  
 ATTGAGTATGACAAGCTCGCGAAGGATGATCCAGTCAACCAACCTAAACAATGCATTTGAAGTGGCTGAGA  
 AATACCTCGATATCCCCAAGATGTTGGATGCTGAGGACATCGTGAACACAGCCCCGGCCGACGAGAAGGC  
 CATAATGACATATGTGTCCAGCTTCTACCATGCCTTTTCAGGAGCGCAGAAGGCTGAGACCGCTGCCAAC  
 CGGATCTGCAAGGTGCTGGCTGTGAACCAGGAAAATGAGCACCTGATGGAAGACTATGAACGCTGGCCA  
 GTGATCTTCTAGAGTGGATTTCGGCGCACCATCCCCTGGCTGGAGGACCGGGTGCCTCAGAAGACCATCCA  
 GGAATGCAGCAGAAGCTGGAGGACTTCGAGACTATAGGCGTGTGCACAAGCCGCCAAGGTGCAGGAG  
 AAGTGTGAGTGGAGATCAACTTCAACACACTGCAGACCAAGCTGCGGCTCAGCAACCGGCTGCCTTCA  
 TGCCCTCCGAGGGCAGGATGGTCTCCGACATCAACAATGGATGGCAGCACCTGGAGAGGAGGAGGAGG  
 CTATGAAGAATGGCTGCTGAATGAAATCCGTAGGCTGGAACGGCTTGACCACCTGGCAGAGAAGTCCCGG  
 CAGAAGGCTTCCATCCACGAGGCTGGACTGATGGGAAGGAGGCCATGCTGAAGCAACGGGACTACGAGA  
 CAGCCACCCTGTGAGACATCAAAGCTCTGATCCGAAAACATGAGGCCTTTGAAAGTGACCTGGTGCACA  
 CCAGGACCGAGTGGAGCAGATTGCTGCAATTGCTCAGGAGCTCAACGAGCTGGACTACTATGACTCCCAC  
 AACGTCAACACACGGTGCCAGAAGATCTGCGACCAGTGGGATAACCTGGGCTCTCTGACACACAGTCGCA  
 GGAAGCCTTGGAGAAAACAGAGAAACAGCTAGAGACCATCGACCAGCTACATTTGGAGTATGCCAAGCG  
 GGCTGCACCCTTCAACAAGTGGATGGAGAGTGCATGGAGGACCTGCAGGACATGTTTCATCGTCCACACC  
 ATCGAGGAGATCGAGGGCTGATCTCAGCCATGACCAGTTCAAGTCCACCCTGCCAGATGCTGACAGGG  
 AGCGTGAGGCCATCCTGGCCATCCACAAGGAGGCCAGAGGATCGCTGAGAGCAATCACATCAAGCTGTC  
 GGGCAGCAATCCCTACACCCTGTTACCCCCAGATCATCAACTCCAAGTGGGAGAAGGTGCAGCAGCTG  
 GTGCCAAGAGGGGACCATGCACTCCTGGAGGAGCAGAGCAAGCAGCAATCCAATGAGCACCTTCGCCGAC  
 AGTTCCGACGCAAGCCAATATGGTGGGGCCGTGGATCCAGACCAAGATGGAGGAGATCGGGCGCATCTC  
 CATTGAGATGAACGGGACTCTGGAAGACCAGCTGAGCCACCTGAAGCAGTACGAGCGCAGCATCGTGGAC  
 TACAAGCCAGCTGGACCTGCTGGAGCAGCAGCACCAGCTCATCCAGGAGGCCCTCATCTTCGACAACA  
 AGCACACCAACTACACAATGGAGCATATCCGTGTGGGCTGGGAGCAGCTGCTCACGACCATTGCCCGCAC  
 CATCAATGAGGTGGAACCAGATCCTCACCCGAGATGCCAAGGGTATCAGCCAGGAGCAGATGCAAGGAG  
 TTCCGGGCATCCTTCAACCATTTGACAAGGACCATGGCGGGGCACTGGGCCTGAGGAATTCAAGGCCT  
 GCCTCATCAGCCTGGGCTATGACGTGGAGAATGACCGGCAGGGTATGCTGAGTTCAACCGATCATGAG  
 TGTGGTTGATCCCAACCATAGTGGCCTCGTGACCTTCCAAGCCTTCATTGACTTCATGTCAAGGGAGACC  
 ACAGACACAGACAGCTGATCAGGTATCGCCTCCTTCAAGGTCTGGCAGGAGACAAGAACTTCATCA  
 CTGCTGAGGAACTGCGGAGAGAGCTGCCCCCGACCAGGCCGAGTACTGCATCGCCCGCATGGCACCCCTA  
 CCAGGGGCTGATGCTGCTCCTGGCGCCCTTGACTACAAGTCTTCTCCACAGCCCTCTATGGGAGAGC  
 GACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAAGTTTAA

**Protein Sequence:** >MR211156 representing NM\_021895  
 Red=Cloning site Green=Tags(s)

MVDYHAANQAYQYGPNSGGGNGAGGGGSMGDYMAQEDDWRDLLLLDPAWEKQQRKFTAWCNSHLRKAGT  
 QIENIDEDFRDGLKMLLLEVISGERLKP PERGKMRVHKINNVNKALDFIASKGVKLVSIGAEEIVDGN  
 KMTLGMIIWIIILRF AIQDISVEETS SAKEGLLLWCQRKTAPYKNNVQNFHISWKDGLAFNALIHRHPEL  
 IEYDKLRKDDPVTNLNNAFEVAEKYLDIPKMLDAEDIVNTARPDEKAIMTYVSSFYHAFSGAQAETAAN  
 RICKVLAVNQENEHLMEDYERLASDLEWIRRTIPWLEDRVPQKTIQEMQQKLEDFRDYRRVHKPPKVQE  
 KCQLEINFNTLQTKLRLSNRPAFMPSEGRMVSDINNGWQHLEQAEKG YEEWLLNEIRRLERLDHLAEKFR  
 QKASIHEAWTDGKEAMLKQRDYETATLSDIKALIRKHEAFESDLAAHQDRVEQIAAIAQELNELDYYDSH  
 NVNTRCQKICDQWDNLGSLTHSRREALEKTEKQLETIDQLHLEYAKRAAPFNNWME SAMEDLQDMFIVHT  
 IEEIEGLISAHDQFKSTLPDADREREAILAIHKEAQRIAESNHIKLSGSNPYTTVTPQIINSKWEKVQQL  
 VPKRDHALLEEQSKQSQSNEHLRRQFASQANMVGPIQTKMEEIGRIS IEMNGTLEDQLSHLKQYERSIVD  
 YKPSLDLLEQQHQLIQEALIFDNKHTNYTMEHIRVGEQLTTIARTINEVENQILTRDAKGISQEQMQE  
 FRASFNHFDDKHGGALGPEEFKACLISLGYDVENDRQGD AEFNRIMSVVDPNHSGLVTFQAFIDFMSRET  
 TDTDTADQVIASFVKVLAGDKNFITAELRRELPPDQAEYCIARMAPYQGPDAAPGALDYKSFSTALYGES  
 DL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9034\\_a04.zip](https://cdn.origene.com/chromatograms/mm9034_a04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



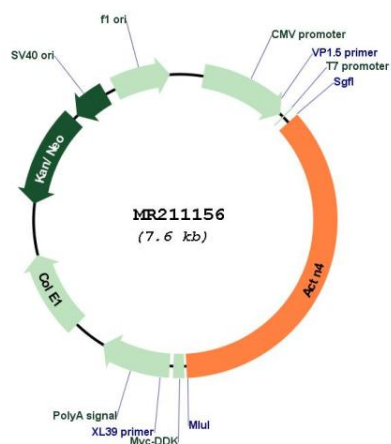
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_021895

**ORF Size:** 2736 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_021895.3</a>
<b>RefSeq Size:</b>	3859 bp
<b>RefSeq ORF:</b>	2739 bp
<b>Locus ID:</b>	60595
<b>UniProt ID:</b>	<a href="#">P57780</a>
<b>Cytogenetics:</b>	7 B1
<b>MW:</b>	105.4 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. Probably involved in vesicular trafficking via its association with the CART complex. The CART complex is necessary for efficient transferrin receptor recycling but not for EGFR degradation (By similarity). Involved in tight junction assembly in epithelial cells probably through interaction with MICALL2. Links MICALL2 to the actin cytoskeleton and recruits it to the tight junctions (PubMed:18332111). May also function as a transcriptional coactivator, stimulating transcription mediated by the nuclear hormone receptors PPARG and RARA (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211156