

## Product datasheet for **MG222171**

### Actn2 (NM\_033268) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Actn2 (NM_033268) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Actn2
Synonyms:	1110008F24Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG222171 representing NM\_033268  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAATCAGATAGAGCCCGCGTGCAGTACAACACTATGTCTACGACGAAGATGAGTATATGATCCAGGAGG  
 AGGAGTGGGACCGGACCTGCTCCTCGACCCGGCTGGGAGAAGCAGCAGAGGAAGACGTTCACTGCCTG  
 GTGCAACTCACACCTGCGAAAGCTGGCACCCAGATCGAGAACATCGAGGAGGATTTTCAGGAACGGCCTC  
 AAGCTCATGCTACTTCTAGAAGTCATCTCAGGGGAAAGGCTGCCAAACCTGACCGGGGAAAAATGCGGT  
 TCCACAAGATTGCGAATGTCAACAAGGCTCTGGATTACATAGCCAGCAAGGGAGTGAAGCTGGTATCTAT  
 TGGAGCTGAAGAAATAGTCGATGGCAATGTGAAGATGACCCTGGGTATGATCTGGACCATCATCTCCGC  
 TTCGCCATTCCAGGACATCTCAGTGAAGAAACATCTGCCAAAGAAGGGCTGCTGCTATGGTGTGAGAGGA  
 AGACAGCTCCATACAGAAATGTGAATATCCAGAACTTCCACACCAGCTGGAAAGATGGCCTTGGACTCTG  
 TGCCCGCATCCACAGACACCGGCCCGACCTCATTGACTACTCAAAGCTTAAACAAGGATGACCCCATAGGA  
 AACATTAACTGGCCATGGAAATAGCAGAGAAGCACTTGGATATCCCTAAGATGTTGGATGCTGAAGACA  
 TTGTCAACACTCCAAACCCGATGAAAGAGCCATCATGACTTACGTTTCTGCTTCTACCATGCTTTCGC  
 GGGAGCGGAGCAGGCCGAGACAGCAGCTAACAGAATATGTAAGGTTCTTGTCTGTAATCAAGAGAATGAG  
 AGGCTGATGGAAGAATATGAGAGGCTAGCGAGTGAAGTGTGGAGTGGATTCGGCGCACAAATCCCCTGGC  
 TGGAGAACAGGACGCCTGAGAAGACCATGCAGGCCATGCAGAAGAAGCTGGAGGACTTCCGGGATTACCG  
 TCGTAAGCATAGCCCCCAAGGTGCAGGAGAAGTCCAGCTGGAGATCAACTTCAACACGCTGCAGACC  
 AAGCTTCGGATCAGCAACCGGCCCGCTTCATGCCCTCCGAGGGCAAGATGGTGTGCGACATTGCTGGTG  
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 GCGCTTGGAGCACTTGGCTGAGAAGTTCAGGCAGAAGGCCCTCCACGCACGAGACATGGGCTTATGGCAAA  
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 ACGAGGCCCTTGAGAGCGACCTGGCTGCACACCAGGACCGCTGGAGCAGATCGTGCATTGCGCAGGA  
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 GATAGATTGGGGACGCTCACCCAGAAGAGGAGGGAGGCCCTGGAGAGAAGTGAAGTTCGGAACAA  
 TCGACCAACTGCACCTGGAGTTTGCCAAGAGAGCCGCGCCCTTCAACAAGTGGATGGAGGGAGCCATGGA  
 GGACCTGCAGAACATGTTTATTGTCACAGCATCGAGGAGATCCAGAGTCTGATCACTGCACATGAGCAG  
 TTCAAGGCCACACTGCCGAGGCCGACGGGGAGCGGCAGTCCATCCTGGCCATCCAGAACGAGGTGGAGA  
 AGGTGATCCAGAGCTACAGCATCCGGATCAGCTCCAGCAACCCCTACAGCACTGTACCATGGATGAGCT  
 GCGCAACAAGTGGGACAAGGTGAAACAGCTGGTCCGGTCCGGGATCAGTCCCTGCAGGAGGAGCTGGCT  
 CGCCAACATGCTAATGAGCGTCTGCGGGCCAGTTTGGTCTCAGGCCAATGCCATTGGGCCCTGGATCC  
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 GCTGAAGCAGTACGAACAACATCATCAACTACAAGAACAACATCGACAAGCTGGAGGGCGACCACCAG  
 CTCATCCAGGAGGCCCTGGTCTTCGACAACAAGCACACGAACTACACCATGGAGCATATCCGTGTCGGAT  
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 GGCTGATGGATCATGAGGATTCAGAGCCTGCCTCATTTCCATGGGCTATGACTTGGGTGAAGCTGAAT  
 TTGCCCGCATTATGACTTTGGTTGACCCCAACGGACAAGGCACGGTACCTTCCAGTCTTCATTGACTT  
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 GATAAGCCTTACATCTTGGCAGAGGAGCTTCGTCGAGAGTGCCTCCGGATCAGGCCAGTACTGCATCA  
 AGAGAATGCCCCATACTCAGGCCCGGCAGTGTCCCGGGGCCCTGGACTACACTGCCTTCTCCTCTGC  
 CCTTACGGGAAAGCGACCTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG222171 representing NM\_033268  
 Red=Cloning site Green=Tags(s)

MNQIEPGVQYNYVYDEDEYMIQEEEWDRDLLLDPAWEKQQRKFTTAWCNShLRKAGTQIENIEEDFRNGL  
 KLMLLLLEVISGERL PKPDRGKMRFHKIANVNKALDYIASKGVKLVSIGAEIIVDGNVKMTLGMIIWTIILR  
 FAIQDISVEETS AKEGLLLWCQRKTAPYRNVNIQNFHTSWKDGLGLCARIHRHRPDLIDYSKLNKDDPIG  
 NINLAMEIAEKHLDIPKMLDAEDIVNTPKPDERAIMTYVSCFYHAFAGAEQAETAANRICKVLAVNQENE  
 RLMEEYERLASELLEWIRRTIPWLENRTPEKTMQAMQKLEDFRDYRRKHKPPKVQEKQLEINFNTLQT  
 KLRISNRPAFMPSEGKMSVSDIAGAWQRLEQAEGYEEWLLNEIRRLERLEHLAEKFRQKASTHETWAYGK  
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 DRLGTLTQKRREALERTEKLETTIDQLHLEFAKRAAPFNNWMEGAMEDLQNMFI VHSIEEIQSLITAEHQ  
 FKATLPEADGERQSILAIQNEVEKVIQSYISIRISSNPYSTVTMDEL RNKWDKVKQLVPVRDQSLQEELA  
 RQHANERLRRQFAAQANAIGPWIQNKMEEIARSSIQITGALEDQMNQLKQYEHNIINYKNNIDKLEGDHQ  
 LIQEALVFDNKHTNYTMEHIRVGWELLLTTIARTINEVETQIL TRDAKGITQEQMNEFRASFNHFDRRKN  
 GLMDHEDFRACLISMGYDLGEAEFARIMTLVDPNGQGT VTFQSFIDFMTRETADTD TAEQVIASFRILAS  
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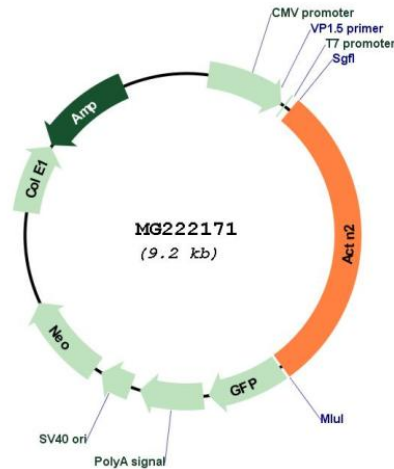
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_033268

**ORF Size:** 2682 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\\_033268.3](#)

**RefSeq Size:** 3091 bp

**RefSeq ORF:** 2685 bp

**Locus ID:** 11472

**UniProt ID:** [Q9JI91](#)

**Cytogenetics:** 13 4.54 cM

**Gene Summary:** 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]