

## Product datasheet for **RG203151**

### ACTG2 (NM\_001615) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACTG2 (NM_001615) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACTG2
Synonyms:	ACT; ACTA3; ACTE; ACTL3; ACTSG; VSCM; VSCM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203151 representing NM_001615 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGTGAAGAGGAGACCACCGCCTCGTGTGTGACAATGGCTCTGGCCTGTGCAAGGCAGGCTTCGCAG  
GAGATGATGCCCCCGGCTGTCTCCCTCCATTGTGGGCCGCCCTCGCCACCAGGGTGTGATGGTGGG  
AATGGGCCAGAAAGACAGCTATGTGGGGATGAGGCTCAGAGCAAGCGAGGGATCCTAACTCTCAAATAC  
CCCATTGAACACGGCATCATACCAACTGGGATGACATGGAGAAGATCTGGCACCCTCTTCTACAATG  
AGCTGCGTGTAGCACCTGAAGAGCACCCACCCTGCTCACAGAGGCTCCCCTAAATCCCAAGGCCAACAG  
GGAGAAGATGACCCAGATCATGTTTGAAACCTCAATGTCCCTGCCATGTACGTCGCCATTCAAGCTGTG  
CTCTCCCTCTATGCCTCTGGCCGCACGACAGGCATCGTCTGGATTACAGGTGATGGCGTACCCACAATG  
TCCCCATCTATGAAGGCTATGCCCTGCCCATGCCATCATGCGCCTGGACTTGGCTGGCCGTGACCTCAC  
GGACTACCTCATGAAGATCCTCACAGAGAGAGGCTATTCCTTTGTGACCACAGCTGAGAGAGAAATTGTG  
CGAGACATCAAGGAGAAGCTGTGCTATGTGGCCCTGGATTTTGAGAAATGAGATGGCCACAGCAGCTTCT  
CTTCTCCCTGGAGAAGAGCTATGAGCTGCCAGATGGGCAGGTTATCACCATTGGCAATGAGCGCTTCCG  
CTGCCCTGAGACCCTCTCCAGCCTTCTTTATTGGCATGGAGTCCGCTGGAATTCATGAGACAACCTAC  
AATCCATCATGAAGTGTGACATTGACATCCGTAAGGACTTATATGCCAACAAATGCCTCTGGGGGCA  
CCACCATGTACCCTGGCATTGCTGACAGGATGCAGAAGGAGATCACAGCCCTGGCCCCAGCACCATGAA  
GATCAAGATTATTGCTCCCCAGAGCGGAAGTACTCAGTCTGGATCGGGGCTCTATCCTGGCCTCTCTC  
TCCACCTTCCAGCAGATGTGGATCAGCAAGCCTGAGTATGATGAGGCAGGGCCCTCATTGTCCACAGGA  
AGTGCTTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG203151 representing NM\_001615  
 Red=Cloning site Green=Tags(s)

MCEEETALVCDNGSGLCKAGFAGDDAPRAVFPISIVGRPRHQVMVGMGQKDSYVGDEAQSKRGILTLKY  
 PIEHGII TNWDDMEKIWHHSFYNELRVAPEEHPTLL TEAPLNPKANREKMTQIMFETFNVPAMYVAIQAV  
 LSLYASGRITGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREIV  
 RDIKEKLCYVALDFENEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETTY  
 NSIMKCDIDIRKDLIANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASL  
 STFQQMWISKPEYDEAGPSIVHRKCF

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001615

**ORF Size:** 1128 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\\_001615.3](#), [NP\\_001606.1](#)

**RefSeq Size:** 1345 bp

**RefSeq ORF:** 1131 bp

**Locus ID:** 72

**UniProt ID:** [P63267](#)

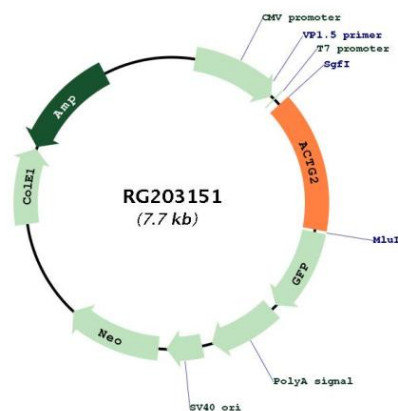
**Cytogenetics:** 2p13.1

**Domains:** ACTIN

**Protein Pathways:** Vascular smooth muscle contraction

**Gene Summary:** Actins are highly conserved proteins that are involved in various types of cell motility and in the maintenance of the cytoskeleton. Three types of actins, alpha, beta and gamma, have been identified in vertebrates. Alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins co-exist in most cell types as components of the cytoskeleton and as mediators of internal cell motility. This gene encodes actin gamma 2; a smooth muscle actin found in enteric tissues. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Based on similarity to peptide cleavage of related actins, the mature protein of this gene is formed by removal of two N-terminal peptides.[provided by RefSeq, Dec 2010]

### Product images:



Circular map for RG203151