

Product datasheet for **RG203655**

ACTC1 (NM_005159) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACTC1 (NM_005159) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACTC1
Synonyms:	ACTC; ASD5; CMD1R; CMH11; LVNC4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203655 representing NM_005159 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGTGACGACGAGGAGACCACCGCCCTGGTGTGCGACAACGGCTCTGGGCTGGTGAAGGCCGGCTTTG
CGGGCGATGACGCGCCCCGCGTGTCTTCCCGTCCATCGTGGGCCGCCGCGGCACCAGGGAGTTATGGT
GGGTATGGGTGAGAAGGACTCCTACGTAGGTGATGAAGCCAGAGCAAGAGAGGCATCCTGACCCTGAAG
TATCCCATCGAGCATGGTATCATCACCACCTGGGACGACATGGAGAAGATCTGGCACCACACCTTCTACA
ATGAGCTCCGTGTGGCTCCCGAGGAGCACCCACCTGCTCACAGAGGCCCGCTGAACCCCAAGGCCAA
CCGGGAGAAGATGACTCAGATCATGTTTGAGACCTTCAATGTCCCTGCCATGTACGTGGCCATCCAGGCA
GTGCTATCCCTGTATGCTTCTGGCCGTACCACAGGCATTGTTCTGGACTCTGGGGATGGTGTAACTCACA
ATGTCCCATCTATGAGGGCTACGCTTTGCCCATGCCATCATGCGTCTGGATCTGGCTGGTCCGGGACCT
CACTGACTACCTCATGAAGATCCTCACTGAGCGTGGCTACTCCTTTGTCACCACTGCTGAACGTGAAATT
GTCCGTGACATTAAGAGAAGCTGTGCTATGTCGCCCTGGATTTTGAGAATGAGATGGCCACAGCTGCC
CTTCTCCTCCCTGGAGAAGAGCTATGAACTGCCTGATGGCAAGTCATCACTATTGGCAATGAGCGCTT
CCGCTGTCCTGAGACACTTCCAGCCCTCCTTATTGGTATGGAATCTGCTGGCATCCATGAAACAAT
TACAATAGCATCATGAAGTGTGACATTGATATCCGAAGGACCTGTATGCCAACAATGTCTTATCTGGAG
GCACCACTATGTACCCTGGTATTGCTGATCGTATGCAGAAGGAAATCACTGCTCTGGCTCCTAGCACCAT
GAAGATTAAGATTATTGCTCCCCCTGAGCGTAAATACTCTGTCTGGATTGGGGGCTCCATCCTGGCCTCT
CTGTCCACCTTCCAGCAAATGTGGATTAGCAAGCAAGGTACGATGAGGCAGGCCATCCATTGTCCACC
GCAAATGCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG203655 representing NM_005159
Red=Cloning site Green=Tags(s)

MCDDEETALVCDNGSGLVKAGFAGDDAPRAVFPISVGRPRHQVVMGMGQKDSYVGDEAQSIRGILTLK
 YPIEHGIITNWDMEKIWHHTFYNELRVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQ
 VLSLYASGRRTTGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREI
 VRDIKEKLCYVALDFENEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETT
 YNSIMKCDIDIRKDLYANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILAS
 LSTFQQMWISKQEYDEAGPSIVHRKCF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005159

ORF Size: 1131 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_005159.5](#)

RefSeq Size: 3693 bp

RefSeq ORF: 1134 bp

Locus ID: 70

UniProt ID: [P68032](#)

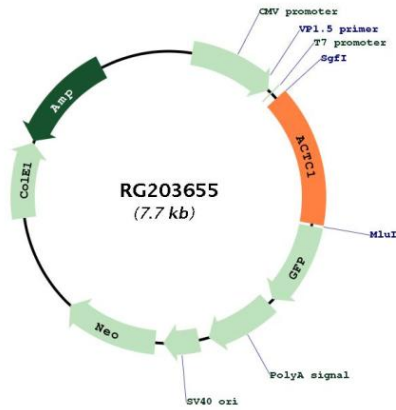
Cytogenetics: 15q14

Domains: ACTIN

Protein Pathways: Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

Gene Summary: Actins are highly conserved proteins that are involved in various types of cell motility. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to four others. The protein encoded by this gene belongs to the actin family which is comprised of three main groups of actin isoforms, alpha, beta, and gamma. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. Defects in this gene have been associated with idiopathic dilated cardiomyopathy (IDC) and familial hypertrophic cardiomyopathy (FHC). [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG203655