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Product datasheet for RC203655

ACTC1 (NM_005159) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACTC1 (NM_005159) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACTC1
Synonyms:	ACTC; ASD5; CMD1R; CMH11; LVNC4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203655 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGTGACGACGAGGAGACCACCGCCCTGGTGTGCGACAACGGCTCTGGGCTGGTGAAGGCCGGCTTTG
CGGGCGATGACGCGCCCCGCGCTGTCTTCCCGTCCATCGTGGGCCGCCCGCGGCACCAGGGAGTTATGGT
GGGTATGGGTCAGAAGGACTCCTACGTAGGTGATGAAGCCCAGAGCAAGAGAGGCATCCTGACCCTGAAG
TATCCCATCGAGCATGGTATCATCACCAACTGGGACGACATGGAGAAGATCTGGCACCACACCTTCTACA
ATGAGCTCCGTGTGGCTCCCGAGGAGCACCCCACCCTGCTCACAGAGGCCCCGCTGAACCCCAAGGCCAA
CCGGGAGAAGATGACTCAGATCATGTTTGAGACCTTCAATGTCCCTGCCATGTACGTGGCCATCCAGGCA
GTGCTATCCCTGTATGCTTCTGGCCGTACCACAGGCATTGTTCTGGACTCTGGGGATGGTGTAACTCACA
ATGTCCCCATCTATGAGGGCTACGCTTTGCCCCATGCCATCATGCGTCTGGATCTGGCTGGTCGGGACCT
CACTGACTACCTCATGAAGATCCTCACTGAGCGTGGCTACTCCTTTGTCACCACTGCTGAACGTGAAATT
GTCCGTGACATTAAAGAGAAGCTGTGCTATGTCGCCCTGGATTTTGAGAATGAGATGGCCACAGCTGCCT
CTTCCTCCTCCCTGGAGAAGAGCTATGAACTGCCTGATGGCCAAGTCATCACTATTGGCAATGAGCGCTT
CCGCTGTCCTGAGACACTCTTCCAGCCCTCCTTCATTGGTATGGAATCTGCTGGCATCCATGAAACAACT
TACAATAGCATCATGAAGTGTGACATTGATATCCGCAAGGACCTGTATGCCAACAATGTCTTATCTGGAG
GCACCACTATGTACCCTGGTATTGCTGATCGTATGCAGAAGGAAATCACTGCTCTGGCTCCTAGCACCAT
GAAGATTAAGATTATTGCTCCCCCTGAGCGTAAATACTCTGTCTGGATTGGGGGCTCCATCCTGGCCTCT
CTGTCCACCTTCCAGCAAATGTGGATTAGCAAGCAAGAGTACGATGAGGCAGGCCCATCCATTGTCCACC
GCAAATGCTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC203655 protein sequence
Red=Cloning site Green=Tags(s)

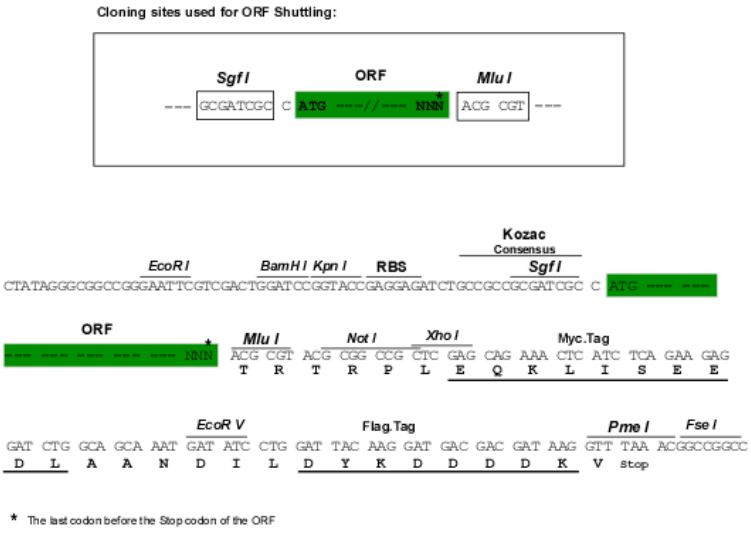
MCDDEETTALVCDNGSGLVKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLK
YPIEHGIITNWDDMEKIWHHTFYNELRVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQA
VLSLYASGRTTGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREI
VRDIKEKLCYVALDFENEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETT
YNSIMKCDIDIRKDLYANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILAS
LSTFQQMWISKQEYDEAGPSIVHRKCF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6423_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005159

ORF Size: 1131 bp

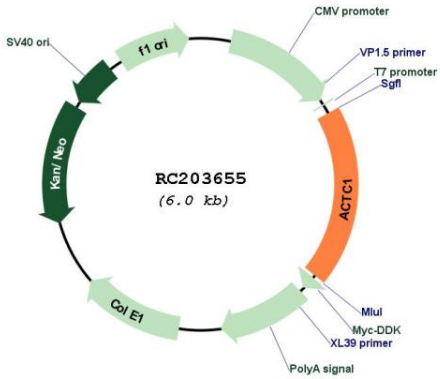
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

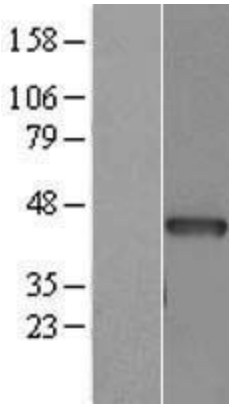
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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)
MW:	42 kDa
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]

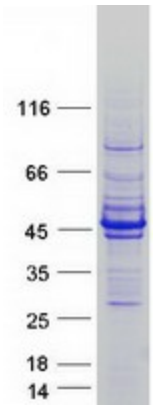
Product images:



Circular map for RC203655



Western blot validation of overexpression lysate (Cat# [LY417479]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203655 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACTC1 protein (Cat# [TP303655]). The protein was produced from HEK293T cells transfected with ACTC1 cDNA clone (Cat# RC203655) using MegaTran 2.0 (Cat# [TT210002]).