OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC203151

ACTG2 (NM_001615) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACTG2 (NM_001615) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACTG2
Synonyms:	ACT; ACTA3; ACTE; ACTL3; ACTSG; VSCM; VSCM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203151 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGTGAAGAGGAGACCACCGCGCTCGTGTGTGACAATGGCTCTGGCCTGTGCAAGGCAGGCTTCGCAG
GAGATGATGCCCCCCGGGCTGTCTTCCCCTCCATTGTGGGCCGCCCTCGCCACCAGGGTGTGATGGTGGG
AATGGGCCAGAAAGACAGCTATGTGGGGGATGAGGCTCAGAGCAAGCGAGGGATCCTAACTCTCAAATAC
CCCATTGAACACGGCATCATCACCAACTGGGATGACATGGAGAAGATCTGGCACCACTCCTTCTACAATG
AGCTGCGTGTAGCACCTGAAGAGCACCCCACCCTGCTCACAGAGGCTCCCCTAAATCCCAAGGCCAACAG
GGAGAAGATGACCCAGATCATGTTTGAAACCTTCAATGTCCCTGCCATGTACGTCGCCATTCAAGCTGTG
CTCTCCCTCTATGCCTCTGGCCGCACGACAGGCATCGTCCTGGATTCAGGTGATGGCGTCACCCACAATG
TCCCCATCTATGAAGGCTATGCCCTGCCCCATGCCATCATGCGCCTGGACTTGGCTGGCCGTGACCTCAC
GGACTACCTCATGAAGATCCTCACAGAGAGAGGCTATTCCTTTGTGACCACAGCTGAGAGAGAAATTGTG
CGAGACATCAAGGAGAAGCTGTGCTATGTGGCCCTGGATTTTGAGAATGAGATGGCCACAGCAGCTTCCT
CTTCCTCCCTGGAGAAGAGCTATGAGCTGCCAGATGGGCAGGTTATCACCATTGGCAATGAGCGCTTCCG
CTGCCCTGAGACCCTCTTCCAGCCTTCCTTTATTGGCATGGAGTCCGCTGGAATTCATGAGACAACCTAC
AATTCCATCATGAAGTGTGACATTGACATCCGTAAGGACTTATATGCCAACAATGTCCTCTCTGGGGGCA
CCACCATGTACCCTGGCATTGCTGACAGGATGCAGAAGGAGATCACAGCCCTGGCCCCCAGCACCATGAA
GATCAAGATTATTGCTCCCCCAGAGCGGAAGTACTCAGTCTGGATCGGGGGCTCTATCCTGGCCTCTCTC
TCCACCTTCCAGCAGATGTGGATCAGCAAGCCTGAGTATGATGAGGCAGGGCCCTCCATTGTCCACAGGA
AGTGCTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC203151 protein sequence
Red=Cloning site Green=Tags(s)

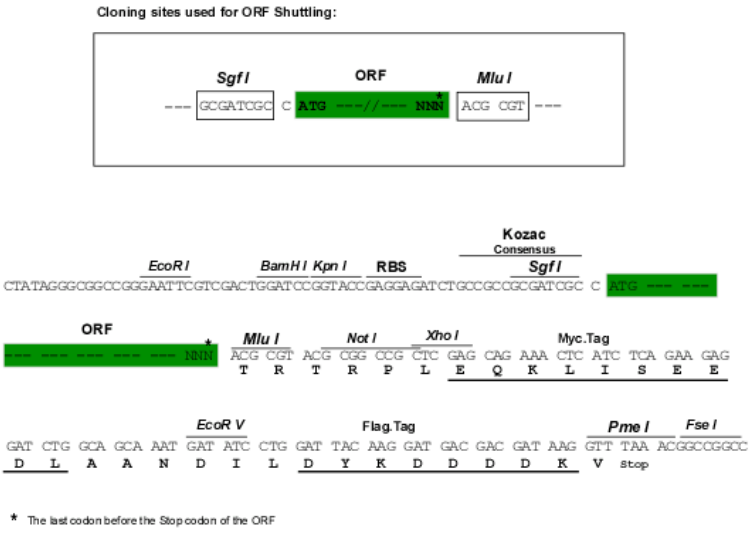
MCEEETTALVCDNGSGLCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKY
PIEHGIITNWDDMEKIWHHSFYNELRVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAV
LSLYASGRTTGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREIV
RDIKEKLCYVALDFENEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETTY
NSIMKCDIDIRKDLYANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASL
STFQQMWISKPEYDEAGPSIVHRKCF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6247_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001615

ORF Size: 1128 bp

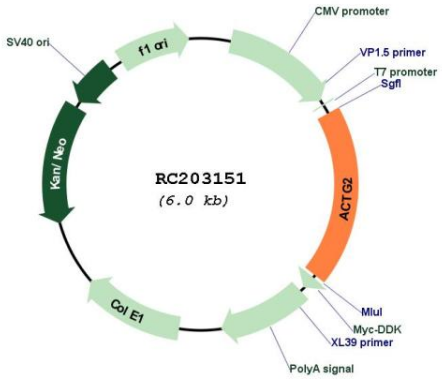
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

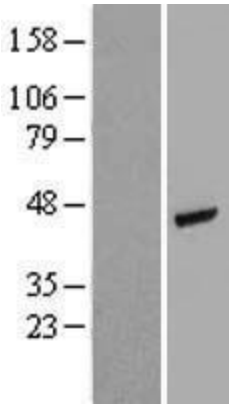
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001615.4
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
MW:	41.9 kDa
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 RC203151



Western blot validation of overexpression lysate (Cat# [LY419843]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203151 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).