

Product datasheet for **RC211319**

ECT2 (NM_018098) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ECT2 (NM_018098) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ECT2
Synonyms:	ARHGEF31
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC211319 representing NM_018098
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTGAAAATAGTGTATTAACATCCACTACTGGGAGGACTAGCTTGGCAGACTCTTCCATTTTGGATT
 CTAAGTTACTGAGATTTCCAAGGAAAACCTTACTTATTGGATCTACTTCATATGTAGAAGAAGAGATGCC
 TCAGATTGAAACAAGAGTGATATTGGTTCAAGAAGCTGGAAAACAAGAAGAACTTATAAAAAGCCTTAAAG
 GACATTAAGTGGGCTTTGTAAGATGGAGTCAGTGGAAGAATTTGAAGTTTGGATTCTCCGGAATTTG
 AAAATGTATTTGTAGTCACGGACTTTCAGGATTCTGTCTTAAATGACCTCTACAAGGCTGATTGTAGAGT
 TATTGGACCACCAGTTGTATTAATTTGTTACAAAAAGGAGAGCCTTTGCCATTTTCATGTCGCCCGTTG
 TATTGTACAAGTATGATGAATCTAGTACTATGCTTTACTGGATTTAGGAAAAAGAAGAACTAGTCAGGT
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 GGCAAATTTGACACAAGGAGAAAAATTCAGGGTGTCTGTGAGTCTAGGTACTCCAATTATGAAGCCAGAA
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 AATTTAAAGTTCCTCCATTTCAAGATTGTATTTAAAGTTTCTGGGATTTTCAGATGAAGAGAAAACCAA
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 GTAGTTGAAGAGAATATAGTAAAAGATCTTCCCTTTGAACCTTCAAAGAACTTTATGTTGTCAAGCAAG
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 TACTCTGAGCTCAAGAAATCAGTGTCAATGCTTCTCTAAATACCCCTAACAGCAATCGCAAACGACGT
 CGTTTAAAAGAAACACTTGCTCAGCTTTCAAGAGAGACAGACGTGTCAACATTTCCACCCCGTAAGCGCC
 CATCAGCTGAGCATTCCCTTTCCATAGGTCACCTCTAGATATCTCCAACACACCAGAGTATGACATTA
 CTATGGAGACACCCCAAAGTCTTGTACTAAGTCTTCTAAAAGCTCCACTCCAGTTCTTCAAAGCAGTCA
 GCAAGGTGGCAAGTTGCAAAAAGAGCTTTATCAAAGTAAATATGTTAATATATTGGCAACAATTA
 TTCAGTTATTTCAAGTACCATTGGAAGAGGAAGGACAACGTGGTGGACCTATCCTTGACACAGAGGAGAT
 TAAGACTATTTTGGTAGCATCCAGATATCTTTGATGTACACACTAAGATAAAGGATGATCTTGAAGAC
 CTTATAGTTAATTGGGATGAGAGCAAAGCATTGGTGACATTTTCTGAAATATTCAAAAGATTTGGTAA
 AAACCTACCTCCCTTTGTAACCTCTTTGAAATGAGCAAGGAAACAATTATTAATGTAAAAACAGAA
 ACCAAGATTTTCATGCTTTTCTCAAGATAAACCAAGCAAAACCAGAATGTGGACGGCAGAGCCTTGTGAA
 CTTCTTATCCGACCAGTACAGAGGTTACCCAGTGTGCATTACTTTTAAATGATCTTAAGAAGCATACAG
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 TAATGAGGATAAGAGAAAAACAGAAAGCTCAAAGCAAATTTTGTGTTGTTTATGAAGTAGATGGATGC
 CCAGCTAATCTTTTATCTTCTCACCGAAGCTTAGTACAGCGGGTTGAAACAATTTCTCTAGGTGAGCACC
 CCTGTGACAGAGGAGAACAAGTAACTCTCTTCTTCAATGATTGCCTAGAGATAGCAAGAAAACGGCA
 CAAGGTTATTGGCACTTTTAGGAGTCTCATGGCCAAACCCGACCCCAAGCTTCTCTTAAGCATATTCAC
 CTAATGCCTCTTCTCAGATTAAGAAGGATTGGACATAAGAGAGACAGAAGATTGCCATAATGCTTTTG
 CCTTGCTTGTGAGGCCACCAACAGAGCAGGCAAATGTGCTACTCAGTTTCCAGATGACATCAGATGAAT
 TCCAAAAGAAAACCTGGCTAAAGATGCTGTGTGACATGTAGCTAACACCATTTGTAAGCAGATGCTGAG
 AATCTTATTTTACTGCTGATCCAGAATCTTTGAAGTAAATACAAAAGATATGGACAGTACATTGAGTA
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 AAGCATGTAATGAGTCGTCTTTCTAGCACATCATCATTAGCAGGTATCCCTTCTCCCTCCCTTGTGACGC
 TTCCTTCTTCTTTGAAAGGAGAAGTCATACGTTAAGTAGATCTACAACCTATTTGATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211319 representing NM_018098
 Red=Cloning site Green=Tags(s)

MAENSVLTSTTGRTSLADSSIFDSKVTEISKENLLIGSTSYVEEEMPQIETRVILVQEAGKQEELIKALK
 DIKVGFKMESVEEFEGLDSPFENFVVTDFQDSVFNLYKADCRVIGPPVVLNCSQKGEPLPFSCRPL
 YCTSMNLLVLCFTGFRKKEELVRLVTLVHHMGGVIRKDFNSKVTHLVANCTQGEKFRVAVSLGTPIMKPE
 WIYKAWERRNEQDFYAAVDDFRNEFKVPPFQDCILSFLGFSDDEEKTNMEEMTEMQGGKYLPLGDERCTHL
 VVEENIVKDLPFEPSSKLYVVKQEFWGSIQMDARAGETMYLYEKANTPELKKSVSMLSLNTPNSNRKRR
 RLKETLAQLSRETDVSPFPKRKPSAEHLSIGSLLDISNTPESSINYGDTPKSCTKSSKSSTPVPSKQS
 ARWQVAKELYQTESNYVNILATIIQLFQVPLEEEGQGGPILAPEEIKTIFGSIPIFDVHTKIKDDLED
 LIVNWDESKSIGDIFLKYSKDLVKTYPFVNFEMSKETIIKCEKQKPRFHAFKINQAKPECGRQSLVE
 LLIRPVQRLPSVALLLNDLKKHTADENPKSTLEKAIGSLKEVMTHINEDKRKTEAQKQIFDVVVEVDGC
 PANLLSSHRSLVQRVETISLGEHPCDRGEQVTLFLFNDCLEIARKRHKVIIGTFRSPHGQTRPPASLKHIIH
 LMPLSQIKKVLDIRATEDCHNAFALLVRPTEQANVLLSFQMTSDELKPNWLMKLRHVANTICKADAE
 NLIYTADPESFEVNTKMDSTLSRASRAIKKTSKKVTRAFSFSKTPKRALRRALMTSHGSVEGRSPSSND
 KHMSRLSSTSSLAGIPSPSLVSLPSFFERRSHTLSRSTHLI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6692_g03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

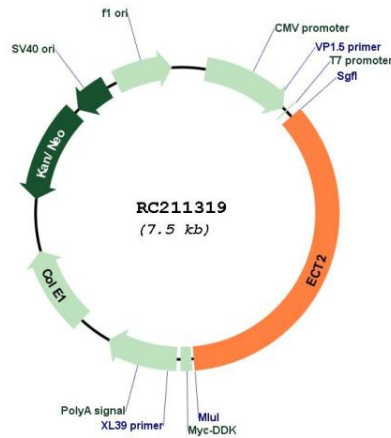


* The last codon before the Stop codon of the ORF

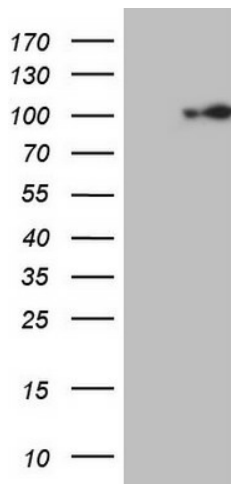
ACCN:	NM_018098
ORF Size:	2649 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_018098.6
RefSeq Size:	3916 bp
RefSeq ORF:	2652 bp
Locus ID:	1894
UniProt ID:	Q9H8V3
Cytogenetics:	3q26.31
Domains:	RhoGEF, BRCT
Protein Families:	Druggable Genome
MW:	99.9 kDa

Gene Summary:

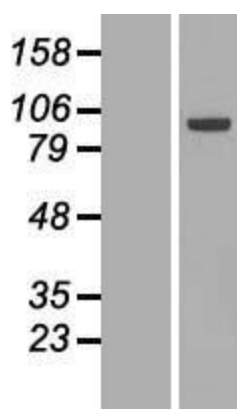
The protein encoded by this gene is a guanine nucleotide exchange factor and transforming protein that is related to Rho-specific exchange factors and yeast cell cycle regulators. The expression of this gene is elevated with the onset of DNA synthesis and remains elevated during G2 and M phases. In situ hybridization analysis showed that expression is at a high level in cells undergoing mitosis in regenerating liver. Thus, this protein is expressed in a cell cycle-dependent manner during liver regeneration, and is thought to have an important role in the regulation of cytokinesis. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2017]

Product images:


Circular map for RC211319



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ECT2 (Cat# RC211319, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ECT2 (Cat# [TA807408]). Positive lysates [LY413314] (100ug) and [LC413314] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413314]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211319 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).