

Product datasheet for **RG235028**

ECT2 (NM_001258315) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ECT2 (NM_001258315) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ECT2
Synonyms:	ARHGEF31
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG235028 representing NM_001258315
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTGAAAATAGTGTATTAACATCCACTACTGGGAGGACTAGCTTGGCAGACTCTTCCATTTTTGATT
 CTAAGTTACTGAGATTTCCAAGGAAAACCTTACTTATTGGATCTACTTCATATGTAGAAGAAGAGATGCC
 TCAGATTGAAACAAGAGTGATATTGGTTCAAGAAGCTGAAAAACAAGAAGAACTATAAAAAGCCTTAAAG
 ACTATTAATAATGGAAGTCCCTGTTATAAAGATAAAAAGAAAGTTGTCCTGGAAAATCGGATGAAAAAT
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 AGGTTTGGATTCTCCGAATTTGAAAATGTATTTGTAGTCACGGACTTTCAGGATTCTGTCTTAAATGAC
 CTCTACAAGGCTGATTGTAGAGTATTGGACCACAGTTGTATTAATTTGTTACAAAAAGGAGAGCCTT
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 AGCAGTTGATGACTTTAGAAATGAATTTAAAGTTCCTCCATTTCAAGATTGTATTTAAAGTTTCTGGGA
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 CTCCAGTTCCTTCAAAGCAGTCAGCAAGGTGGCAAGTTGCAAAAGAGCTTTATCAAAGTAAATTA
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 CTGAAGGAAGTAATGACGCATATTAATGAGGATAAGAGAAAAACAGAAGCTCAAAAGCAAATTTTGGATG
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 CCCTTCTCCCTCCCTTGTGAGCCTTCTTCTTCTTTGAAAGGAGAAGTCATACGTTAAGTAGATCTACA
 ACTCATTGATA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG235028 representing NM_001258315
 Red=Cloning site Green=Tags(s)

MAENSVLTSTTGRTSLADSSIFDSKVTEISKENLLIGSTSYVEEEMPQIETRVILVQEAGKQEELIKALK
 TIKIMEVPVIKIKESCPGKSDEKLIKSVINMDIKVGFVKMESVEEFGLDSPEFENVFVTDQDSVFND
 LYKADCRVIGPPVVLNCSQKGEPLPFSRPL YCT SMMNLVLCFTGFRKKEELVRLVTLVHHMGGVIRKDF
 NSKVTHLVANCTQGEKFRVAVSLGTPIMKPEWIYKAWERRNEQDFYAAVDDFRNEFKVPPFQDCILSFLG
 FSDEEKTNMEEMTEMQGGKYLPLGDERCTHLVVEENIVKDLPFEP SKLYVVKQEFWFGSIQMDARAGET
 MYLYEKANTPELKKSVSMSLNLTPNSNRKRRRLKETLAQLSRET DVSPFPPRKRPSAEHLSIGSLLDIS
 NTPESSINYGDTPKSCTKSSKSSTPVPSKQ SARWQVAKELYQTESNYVNILATIIQLFQVPLEEEGQRGG
 PILAPEEIKTIFGSIPDIFDVHTKIKDDLEDLIVNWDSEK SIGDIFLKYSKDLVKTYPPFVNFFEMSKET
 IIKCEKQKPRFHAF LKINQAKPECGRQSLVELLIRPVQRLPSVALLLNDLKKHTADENPDKSTLEKAIGS
 LKEVMTHINEDKRKTEAQKQIFDVVYVDGCPANLLSSHRSLVQRVETISLGEHPCDRGEQVTLFLFNDC
 LEIARKRHKVI GTFRSPHGQTRPPASLKH IHL MPLSQIKKVLDIR ETDCHNAFALLVRPPEQANVLLS
 FQMTSDEL PKENWLKMLCRHVANTICKADAENLIYTADPE SFVNTKMDMDSTLSRASRAIKKT SKKVTRA
 FFSFKTPKRALRRALMTSHGSVEGRSPSSNDKHVMSRLSSTSSLAGIPSPSLVSLPSFFERRSHTLSRST
 THLI

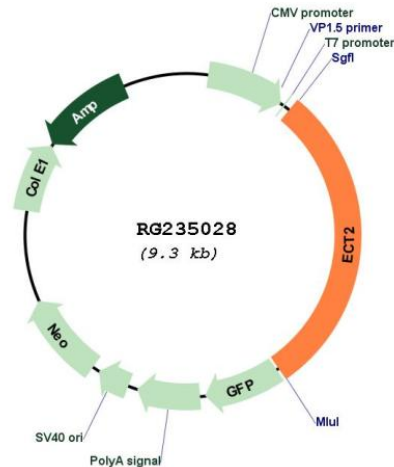
TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001258315

ORF Size: 2742 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_001258315.2](#)

RefSeq Size: 4192 bp

RefSeq ORF: 2745 bp

Locus ID: 1894

UniProt ID: [Q9H8V3](#)

Cytogenetics: 3q26.31

Protein Families: Druggable Genome

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]