

Product datasheet for **RG226198**

CDC27 (NM_001114091) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDC27 (NM_001114091) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDC27
Synonyms:	ANAPC3; APC3; CDC27Hs; D0S1430E; D17S978E; H-NUC; HNUC; NUC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG226198 representing NM_001114091
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACGGTGTGCAGGAACCCGTCAGGCTGCTATATGGCAAGCACTAAACCACTATGCTTACCGAGATG
 CGGTTTTCTCGCAGAAGCCTTTATGCAGAAGTACACTCAGAAGAAGCCTTGTTTTACTGGCAACCTG
 TTATTACCGCTCAGGAAAAGGCATATAAAGCATATAGACTCTTGAAAGGACACAGTTGTACTIONACACCGCAA
 TGCAAATACCTGCTTGCAAAATGTTGTGTGATCTCAGCAAGCTTGCAAGGGGAACAAATCTTATCTG
 GTGGAGTGTAAATAAGCAGAAAAGCCATGATGATATTGTTACTGAGTTTGGTGATTGAGCTTGTCTTAC
 TCTTTTATTGTTGGGACATGTATATTGCAAGACAGATCGGCTTGCCAAAGGATCAGAATGTTACCAAAAAG
 AGCCTTAGTTAAATCCTTCTGCTCCCTTTGAATCATTATGTGAAATAGGTGAAAAGCCAGATC
 CTGACCAACATTTAAATTCACATCTTTACAGAAGTTAGCAACTGTCTGCCAACTCTTGACAACACA
 AGTACCTAATCATAGTTTATCTCACAGACAGCCTGAGACAGTTCTTACGAAAACACCCAGGACACAATT
 GAATTAACAGATTGAATTTAGAATCTTCCAATCAAAGTACTCCTTGAATACAGATTCCCTAGTGTCTT
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 GGTTCAAAATAAACCAAAAAGTGGTGAAGTTTATTAGGAGGACCAGCAGCTCTTAGTCCATTAACCCCA
 AGTTTTGGGATTTGCCATTAGAAAACCCCAAGTCTGGAGATGGATCCTATTTACAAAACACTACTAATA
 CACCTCTGTAATTGATGTGCCATCCACCGGAGCCCTTCAAAAAGACTTTTCGTGTTTACAGTCTGT
 TGCCAGAATCGGCCAACTGGAACAAAGTCTGTCTTCTCACAGAGTGAAATAGCCGAGAGGTAACCTCA
 ATCTTTGACAAAACAAAAGTTCTGGTCCAAAACAAGTACACACCTCAGGTATTGAGCCCACTATTA
 CATCTCCCAACCGCACTGCCTCGAAGAAGTTACGACTCTTTACTAGTGACAGCTCCACAACCAAGGA
 GAATAGCAAAAATTAATAATGAAGTTTCCACCTAAAATCCCAACAGAAAACAAAAGTAAAACATAAT
 AAAGGAGGAATAACTCAACCTAACATAAATGATAGCCTGGAAATTACAAAATTGGACTCTTCCATCATT
 CAGAAGGGAAAATATCCACAATCACACCTCAGATTGAGGCCTTTAATCTACAAAAGCAGCAGCAGAAGG
 TTTGATGAGCCTTCTCGTGAATGGGAAAGGTTATTTAGCTTGTGTTTATACAACTGCAAAAGAGCT
 ATAAATATTTGAGCCATCTACCTTCTCACCACACTACAATACTGGTTGGTACTGTGCCAAATTGGAAGG
 CCTATTTGAACTTTGAGAGTACATGCAAGCTGAAAGAATATTCTCAGAGGTTAGAAGGATTGAGAATTA
 TAGAGTTGAAGGCATGGAGATCTACTCTACAACACTTTGGCATCTTCAAAAAGATGTTGCTCTTTCAGTT
 CTGTCAAAAGACTTAACAGACATGGATAAAAATTCGCCAGAGGCCTGGTGTGCTGCAGGGAACTGTTTCA
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 TTATGCCTATACTCTATTAGGGCATGAGTTTGTCTTAACTGAAGAATTGGACAAAAGCATTAGCTTGT
 CGAAATGCTATCAGAGTCAATCCTAGACATTATAATGCATGGTATGGTTTAGGAATGATTTATTACAAGC
 AAGAAAATTCAGCCTTGCAAAATGCATTTCCAAAAGCGCTTGATATCAACCCCAAAGTTGAGTTTT
 ACTTTGCCACATTGGAGTAGTTCAACATGCACTGAAAAATCAGAGAAGGCTTTGGATACCTAAACAAA
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 AATATAAGTCTGCTTTACAAGAAGTTAGGTCAAACGCACCTCGCCCTGATGAATTTCTCTTGGGCTATG
 GATTTAGATCCTAAAGGAGCCAATAACAGATTAAGAGGCAATTGATAAGCGTTATCTTCCAGATGATG
 AGGAGCCAATAACCAAGAAGACAGATCATGGGAACAGATGAATCCCAGGAGAGCAGCATGACAGATGC
 GGATGACACACAACCTTATGCAGCTGAAAGTGAATTT

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG226198 representing NM_001114091
 Red=Cloning site Green=Tags(s)

MTVLQEPVQAAIWQALNHAYRDAVFLAERLYAEVHSEEALFLLATCYRSGKAYKAYRLLKGHSCTTPQ
 CKYLLAKCCVDLSKLAEGEQILSGGVFNKQKSHDDIVTEFGDSACFTLSLLGHVYCKTDRLAKGSECYQK
 SLSLNPFLWSPFESLCEIGEKDPDQTFKFTSLQNF SNCLPNSCTTQVPNHSLSHRQPETVLTETPQDTI
 ELNRLNLESSNSKYSLNTDSSVSYIDSAVISPDTVPLGTGTSILSKQVQNKPKTGRSLLGGPAALSPLTP
 SFGILPLETPSPGDG SYLQNYTNTPPVIDVPSTGAPSKKTFRVLQSVARIGQTGKSVFSQSGNSREVTP
 ILAQTQSSGPQTSTTPQVLSPTITSPPNALPRRSRLFTSDSSTTKENSKKLMKFPPKIPNRKTKSKTN
 KGGITQPNINDSLEITKLDSSIISEGKISTITPQIQAFNLQKAAAEGMSLLREMGKYLALCSYNCKEA
 INILSHLPSHHYNTGWLCQIGRAYFELSEYMQAERIFSEVRRRIENYRVEGMEIYSTTLWHLQKDVALSV
 LSKDLTMDKNSPEAWCAAGNCFSLQREHDIAIKFFQRAIQVDPNYAYAYTLGHEFVLTEELDKALACF
 RNAIRVNP RHYNAWYGLGMIYYKQEKFLAEMHFQKALDINPQSSVLLCHIGVVQHALKKSEKALDTLNK
 AIVIDPKNPLCKFHRSVLFANEKYKSALQELEELKQIVPKESLVYFLIGKVYKKGQTHLALMNF SWAM
 DLDPKGANNQIKEAIDKRYLPDDEEPIQEEQIMGTDESQESSMTDADDTQLHAAESDEF

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:

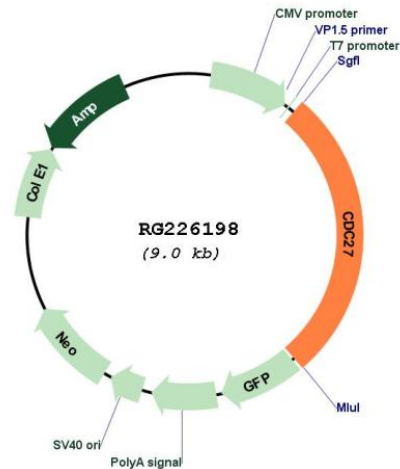


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                                     Kozac
                                     Consensus
                                     SgfI
      EcoRI      BamHI KpnI      RBS      AscI
CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

      HindIII  NheI  RsrII  MluI      NotI  XhoI      GFP Tag
CAAGCTTAACTAGCTAGCGGACCG  ACG CGT  ACG CGG  CCG CTC GAG  ATG GAG  AGC GAC  ---
                                     T  R  T  R  P  L  E  M  E  S  D  -  -  -

                                     PmeI  FseI
--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
- - - E E R V  Stop
    
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Plasmid Map:


ACCN: NM_001114091

ORF Size: 2490 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_001114091.4](#)

RefSeq Size: 5611 bp

RefSeq ORF: 2493 bp

Locus ID: 996

UniProt ID: [P30260](#)

Cytogenetics:	17q21.32
Protein Families:	Druggable Genome
Protein Pathways:	Cell cycle, Oocyte meiosis, Progesterone-mediated oocyte maturation, Ubiquitin mediated proteolysis
Gene Summary:	<p>The protein encoded by this gene shares strong similarity with <i>Saccharomyces cerevisiae</i> protein Cdc27, and the gene product of <i>Schizosaccharomyces pombe</i> nuc 2. This protein is a component of the anaphase-promoting complex (APC), which is composed of eight protein subunits and is highly conserved in eukaryotic cells. This complex catalyzes the formation of cyclin B-ubiquitin conjugate, which is responsible for the ubiquitin-mediated proteolysis of B-type cyclins. The protein encoded by this gene and three other members of the APC complex contain tetratricopeptide (TPR) repeats, which are important for protein-protein interactions. This protein was shown to interact with mitotic checkpoint proteins including Mad2, p55CDC and BUBR1, and it may thus be involved in controlling the timing of mitosis. Alternative splicing of this gene results in multiple transcript variants. Related pseudogenes have been identified on chromosomes 2, 22 and Y. [provided by RefSeq, May 2014]</p>