

Product datasheet for **RC202804**

Centrin 3 (CETN3) (NM_004365) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Centrin 3 (CETN3) (NM_004365) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Centrin 3
Synonyms: CDC31; CEN3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202804 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGTTTAGCTCTGAGAAGTGAGCTTGTAGTGGACAAAACAAAGAGGAAAAAAGAAGAGAAGTGTCTG
 AGGAACAGAAACAAGAAATTAAGATGCTTTTGAACATTTTGATACAGACAAAGATGAAGCAATAGATTA
 TCATGAATTAAGGTGGCAATGAGAGCCTTGGGGTTTGATGTAAGAAAGCTGATGACTGAAGATTCTT
 AAAGATTATGACAGAGAAGCCACAGGGAAAATCACCTTTGAAGATTTAATGAAGTTGTGACAGACTGGA
 TATTGAAAGAGATCCCCATGAAGAAATACTCAAGGCATTTAACTATTTGATGATGATGATTTCAGGTAA
 AATAAGCTTGAGGAATTTGCGACGTGTTGCTAGAGAATGGGTGAAAACATGAGTGATGAAGAACTCGA
 GCTATGATAGAAGAATTTGACAAAGATGGTGATGGAGAAATAACCAAGAGGAGTTCATTGCTATTATGA
 CTGGTGACATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202804 protein sequence
 Red=Cloning site Green=Tags(s)
 MSLALRSELVVDKTKRKRRELSEEQQEIKDAFELFDTDKDEAIDYHELKVAMRALGFDVKKADVLKIL
 KDYDREATGKITFEDFNVEVTDWILERDPHEEILKAFKLFDDDDSGKISLRNLRRVARELGENMSDEELR
 AMIEEFDKGDGEINQEEFIAIMTGDI

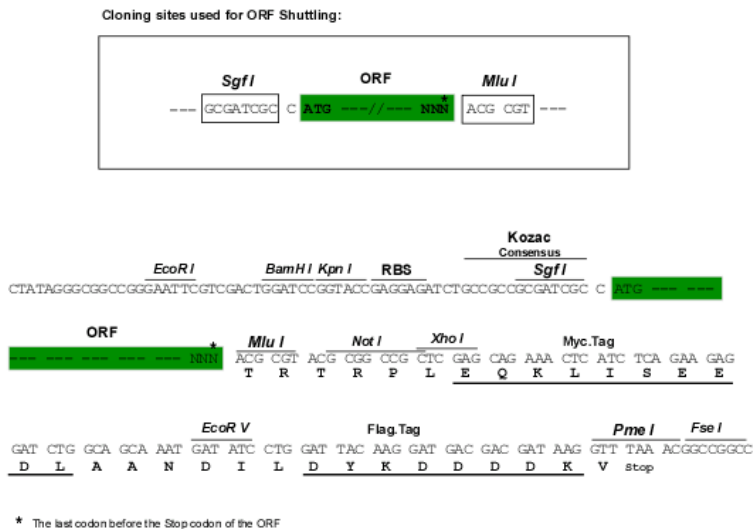
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6415_b12.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004365

ORF Size: 501 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_004365.4](#)

RefSeq Size: 1374 bp

RefSeq ORF: 504 bp

Locus ID: 1070

UniProt ID: [O15182](#)

Cytogenetics: 5q14.3

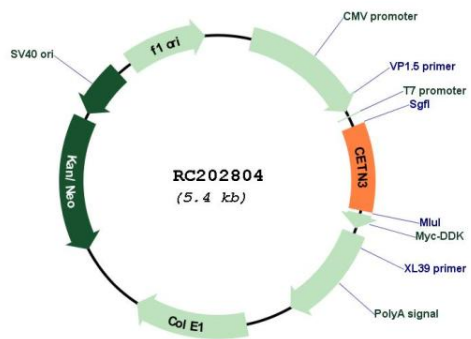
Domains: EFh

Protein Families: Druggable Genome

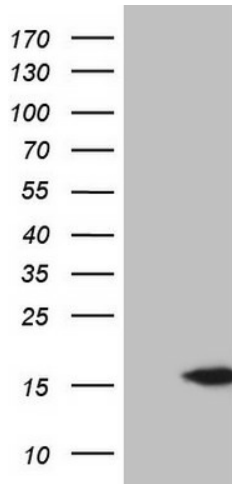
MW: 19.6 kDa

Gene Summary: The protein encoded by this gene contains four EF-hand calcium binding domains, and is a member of the centrin protein family. Centrins are evolutionarily conserved proteins similar to the CDC31 protein of *S. cerevisiae*. Yeast CDC31 is located at the centrosome of interphase and mitotic cells, where it plays a fundamental role in centrosome duplication and separation. Multiple forms of the proteins similar to the yeast centrin have been identified in human and other mammalian cells, some of which have been shown to be associated with centrosome fractions. This protein appears to be one of the most abundant centrins associated with centrosome, which suggests a similar function to its yeast counterpart. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2014]

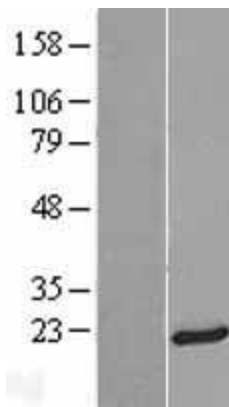
Product images:



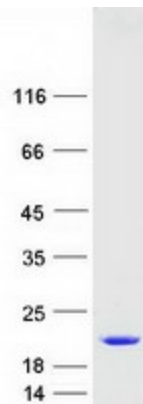
Circular map for RC202804



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CETN3 (Cat# RC202804, 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-CETN3 (Cat# [TA805890]). Positive lysates [LY418039] (100ug) and [LC418039] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418039]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202804 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CETN3 protein (Cat# [TP302804]). The protein was produced from HEK293T cells transfected with CETN3 cDNA clone (Cat# RC202804) using MegaTran 2.0 (Cat# [TT210002]).