

Product datasheet for **RC208066**

Cullin 3 (CUL3) (NM_003590) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cullin 3 (CUL3) (NM_003590) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CUL3
Synonyms:	CUL-3; NEDAUS; PHA2E
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC208066 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGAATCTGAGCAAAGGCACGGGCAGCCGGAAGGACACCAAGATGCGGATCCGGCCTTTCCGATGA
 CCATGGATGAAAAATATGTAACAGCATTGGGACCTTCTGAAAAATGCAATTCAGAAATCCAGCGTAA
 GAATAACAGTGGTCTTAGTTTTGAGGAGCTCTATAGAAATGCATATACAATGGTTTTGCATAAACATGGA
 GAAAAGCTCTACACTGGACTAAGAGAAGTTGTTACCGAACATCTCATAAATAAGGTGCGAGAAGATGTAC
 TAAATTCATTGAATAACAACCTTTCTTCAAACGCTAAATCAAGCTTGGAAATGATCATCAAACAGCTATGGT
 GATGATTAGAGACATACTAATGTACATGGACCGTGTGTATGTACAACAAAATAATGTGGAGAACGTCTAC
 AATTTGGGATTAATATTTTTCGAGATCAAGTTGTACGTTATGGGTGATTTAGGGATCATCTACGGCAA
 CTCTATTGGATATGATTGCAAGAGAGCGGAAAGGAGAAGTCGTAGACAGAGGCGCAATAAGAAATGCTTG
 CCAGATGTTAATGATTTTAGGTCTCGAAGGAAGATCAGTCTATGAAGAAGATTTTGAGGCTCCTTTTTTG
 GAAATGTCTGCAGAATTTTTTCAGATGGAAAGCCAGAAATTTTTAGCAGAAAATAGTGCTTCAGTATATA
 TAAAGAAAGTAGAAGCTAGAATTAATGAAGAAATAGAACGAGTGTGACTGCCTTGACAAATCAACGGA
 AGAACCAATTGTAAGGTGGTTGAAAGGGAACCTATTTCCAAGCACATGAAGACTATAGTAGAAATGGAG
 AATTCTGGGCTAGTACATATGTTGAAAAATGGAAGACAGAAGACCTTGGTTGCATGTACAAGTTATTTA
 GTCGTGTGCCAAATGGTTTGAACAATGTGTGAGTGTATGAGTTCCTATTTGAGGGAGCAAGGTAAGGC
 TCTTGTCTGAAGAAGGAGAAGGAAAGAAATCCTGTTGACTATATCCAGGGCTTATTGGATCTGAAGAGT
 AGGTCGATCGCTTCTCCTGGAATCATTCAACAATGACCGTCTCTTTAAACAACTATTGCGGGTGACT
 TTGAGTATTTCTCAACCTCAACTCCAGGTCTCCTGAATACCTCATTATTTATTGATGATAAGAGTAA
 AAAGGGAGTCAAAGGGCTAACAGAACAAGAAGTAGAAACAATATTGGATAAAGCAATGGTCTTTTTAGG
 TTTATGCAAGAAAAGATGTATTTGAACGTTATTATAACAACACTTGGCAAGGAGACTTCTCACAAATA
 AAAGTGTCTGATGACTCTGAAAAAACATGATATCTAAGTTAAAGACTGAATGTGGATGTCAGTTCAC
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 CTACAGGCAACTGGTGTATCTTTAGGTGGTGTGATCTTACAGTCCGGGTGCTCACGACAGGATATTGGC
 CCACTCAGTCAGCCACACCAAAGTGCAACATCCCACCAGCACCAAGACATGCTTTTGAGATATTCAGAAG
 GTTCTACTTAGCCAAACACAGTGGTCGACAGCTCACACTCCAGCATCATATGGGTCTGCAGATCTCAAT
 GCCACATTTTATGGACCAGTTAAAAGGAAGATGGATCTGAAGTTGGTGTGGAGGTGCACAAGTAACTG
 GCTCTAATACACGGAAGCACATATTGCAAGTTTCCACTTTCAGATGACCATATTAATGCTCTTTAATAA
 TAGAGAAAAATACACATTTGAGGAAATTCAGCAAGAGACAGATATCCCTGAAAGAGAGCTTGTAGAGCC
 CTACAGTCCCTCGCTGTGGTAAACCAACACAGCGGGTCTTACAAAAGAACCCTAAATCAAAGGAAATAG
 AAAATGGTCATATATTTACAGTTAATGATCAGTTCACATCCAACTACACAGAGTCAAGATTCAAACAGT
 TGCTGCCAAACAAGGTGAATCCGACCCAGAGAGGAAAGAAACAAGGCAGAAAGTAGACGACGACAGAAAA
 CATGAGATAGAAGCTGCTATAGTGCGGATAATGAAATCTAGAAAGAAGATGCAGCACAATGTTCTAGTAG
 CGGAGGTAACCTCAGCAGTTGAAGGCGGATTCTTACCAAGTCCAGTTGTTATTAAGAAACGTATTGAAGG
 ACTTATTGAGAGAGAATTTTGGCACGAACACCTGAGGATCGCAAAGTATACACATATGTAGCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208066 protein sequence
 Red=Cloning site Green=Tags(s)

MSNL SKGTGSRKDTKMRIRAFPM TDEKYVNSIWDLLKNAIQEIQRKNNSGLSFEELYRNAYTMVLHKHG
 EKLYTGLREVVTEHLINKVREDVLSLNNNF LQTLNQA WNDHQ TAMVMIRDILMYMDRVVYVQNNVENVY
 NLGLIIFRDQVVRVYGCIRDHLRQTLDDMIARERKGEVVD RGAIRNACQMLMILGLEGRSVYEEDFEAPFL
 EMSAEFFQMESQKFLAENSASVYIKKVEARINEEIERVMHCLDKSTE EPIVKVVERELISKHMKTI VEME
 NSGLVHMLKNGKTEDLGCMYKLSRVPNGLKTMCECMSSYLREQKALVSEE GEGKNPVDYIQGLLDLKS
 RFDRFLLESFNDR LFKQTIAGDFEYFLNLSRSPEYLSLFI DDKLLKKGVKGLTEQE VETILDKAMV LFR
 FMQEKDVFERYKQHLARRLLTNKSVSDDSEKNMISKLKTECGCQFTSKLEGMFRDMSISNTT MDEF RQH
 LQATGVS LGGVDLTVRVLTTGYWPTQSATPKCNI PPAPRHA FEIFRRFYLA KHSGRQLTLQHMGSA DLN
 ATFYGPVKKEDGSEVGVGAQVTGSNTRKHILQVSTFQMTILMLFNNREKYTFEEIQQETDIPERELVRA
 LQSLACGKPTQRVLTKEPKSKEIENGHIFTVNDQFTSKLHRVKIQTVAAKQGESDPERKETRQKVDDDRK
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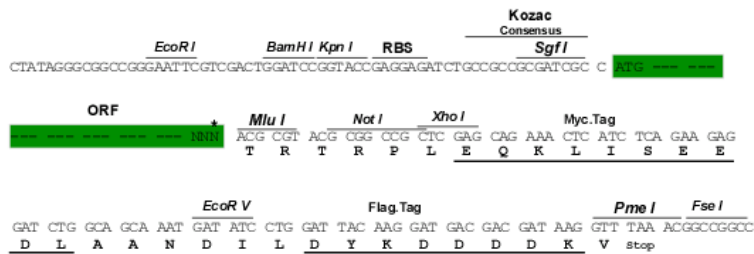
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6202_b01.zip

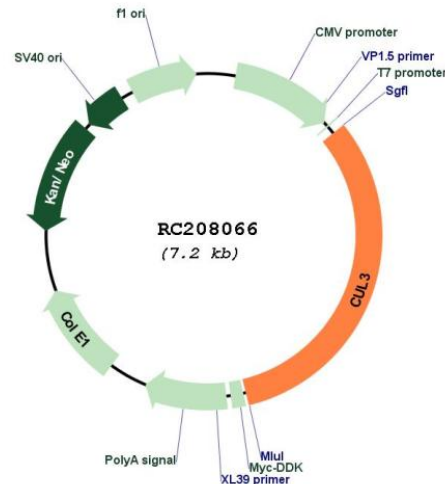
Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_003590

ORF Size: 2304 bp

OTI Disclaimer: 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.

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).

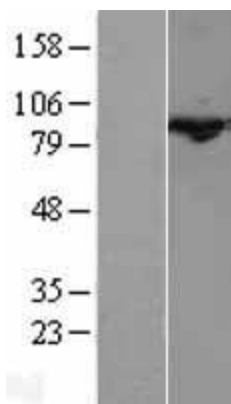
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_003590.5](#)

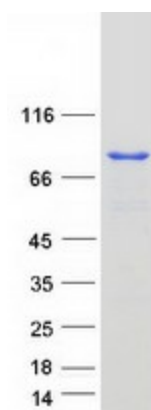
RefSeq Size:	6790 bp
RefSeq ORF:	2307 bp
Locus ID:	8452
UniProt ID:	Q13618
Cytogenetics:	2q36.2
Domains:	CULLIN
Protein Families:	Druggable Genome
Protein Pathways:	Ubiquitin mediated proteolysis
MW:	88.9 kDa

Gene Summary: This gene encodes a member of the cullin protein family. The encoded protein plays a critical role in the polyubiquitination and subsequent degradation of specific protein substrates as the core component and scaffold protein of an E3 ubiquitin ligase complex. Complexes including the encoded protein may also play a role in late endosome maturation. Mutations in this gene are a cause of type 2E pseudohypoaldosteronism. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Mar 2012]

Product images:



Western blot validation of overexpression lysate (Cat# [LY401191]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208066 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CUL3 protein (Cat# [TP308066]). The protein was produced from HEK293T cells transfected with CUL3 cDNA clone (Cat# RC208066) using MegaTran 2.0 (Cat# [TT210002]).