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Product datasheet for SC321610

Cullin 2 (CUL2) (NM_003591) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cullin 2 (CUL2) (NM_003591) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cullin 2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>OriGene sequence for NM_003591.2
GGCGGCGGCCGGCCGGGGAGGCGGCCTCGGCGCACAGTAATGGCAGCGCTGTGAGCAGGG
GAACGCGAGCTGACAGCCGCCGCCGCCGCCGCCTCCGCCCACCTTCCTCGCCGGGGCTTC
GTCTTTCACTCCTTCGGGCTGCCTCCCCCTCCCCTTGTCCCCTGCCCCTTGCCCTGCTTC
TGCAGAAGATTTCAACACTACACTTGCACAATGTCTTTGAAACCAAGAGTAGTAGATTTT
GATGAAACATGGAACAAACTTTTGACGACAATAAAAGCCGTGGTCATGTTGGAATACGTC
GAAAGAGCAACATGGAATGACCGTTTCTCAGATATCTATGCTTTATGTGTGGCCTATCCT
GAACCCCTTGGAGAAAGACTTTATACAGAAACTAAGATTTTTTTGGAAAATCATGTTCGG
CATTTGCATAAGAGAGTTTTGGAGTCAGAAGAACAAGTACTTGTTATGTATCATAGGTAC
TGGGAAGAATACAGCAAGGGTGCAGACTATATGGACTGCTTATATAGGTATCTCAACACC
CAGTTTATTAAAAAGAATAAATTAACAGAAGCGGACCTTCAGTATGGCTATGGTGGTGTA
GATATGAATGAACCACTTATGGAAATAGGAGAGCTAGCATTGGATATGTGGAGGAAATTG
ATGGTTGAACCACTTCAGGCCATCCTTATCCGAATGCTGCTCCGAGAAATCAAAAATGAT
CGTGGTGGAGAAGACCCAAACCAGAAAGTAATCCATGGGGTTATTAACTCCTTTGTTCAT
GTTGAACAGTATAAGAAAAAATTCCCCTTAAAGTTTTATCAGGAAATTTTTGAGTCTCCC
TTTCTGACTGAAACAGGAGAGTATTACAAACAAGAAGCTTCAAATTTATTACAAGAATCA
AACTGCTCACAGTATATGGAAAAGGTTCTAGGTAGATTAAAAGATGAAGAAATTCGATGT
CGAAAATACCTACATCCAAGTTCATATACTAAGGTGATTCATGAATGTCAACAACGAATG
GTAGCAGACCACTTACAGTTTTTACATGCAGAATGTCATAATATAATTCGACAAGAGAAA
AAAAATGACATGGCAAATATGTACGTCTTACTCCGTGCTGTGTCCACTGGTTTACCTCAT
ATGATTCAGGAGCTGCAAAACCACATCCATGATGAGGGCCTTCGAGCAACCAGCAACCTT
ACTCAGGAAAACATGCCAACACTATTTGTGGAGTCAGTTTTGGAAGTGCATGGTAAATTT
GTTCAGCTTATCAACACTGTTTTGAATGGTGATCAGCATTTTATGAGTGCGTTGGATAAG
GCCCTTACGTCAGTTGTAAATTACAGAGAACCTAAGTCTGTTTGCAAAGCACCTGAACTG
CTTGCTAAGTACTGTGACAACTTACTGAAGAAGTCAGCGAAAGGGATGACAGAGAATGAA
GTGGAAGACAGGCTCACGAGCTTCATCACAGTGTTCAAATACATTGATGACAAGGACGTC
TTTCAAAAGTTCTACGCAAGAATGCTGGCAAAACGTTTAATTCATGGGTTATCCATGTCT
ATGGACTCTGAAGAAGCCATGATCAACAAATTAAAGCAAGCCTGTGGTTATGAGTTTACC
AGCAAGCTACATCGGATGTATACAGATATGAGTGTCAGCGCTGATCTCAACAATAAGTTC
AACAATTTTATCAAAAACCAAGACACAGTAATAGATTTGGGAATTAGTTTTCAAATATAT
GTTCTACAGGCTGGTGCGTGGCCTCTTACTCAGGCTCCTTCATCTACGTTTGCAATTCCC
CAGGAATTAGAAAAAAGTGTACAGATGTTTGAATTATTTTATAGCCAACATTTCAGTGGA
AGGAAACTTACATGGTTACATTATCTGTGTACAGGTGAAGTTAAAATGAACTATTTGGGC
AAACCATATGTAGCCATGGTTACAACATACCAAATGGCAGTTCTTCTTGCCTTTAACAAC
AGTGAAACTGTCAGTTATAAAGAGCTTCAGGACAGCACTCAGATGAATGAAAAGGAACTG
ACAAAAACAATCAAATCATTACTTGATGTGAAAATGATTAACCATGATTCAGAAAAGGAA
GATATTGATGCAGAATCTTCGTTTTCATTAAATATGAACTTTAGCAGTAAAAGAACAAAA
TTTAAAATTACTACATCAATGCAGAAAGACACACCACAAGAAATGGAGCAGACTAGAAGT
GCAGTTGATGAGGACCGGAAAATGTATCTCCAAGCTGCTATAGTTCGTATCATGAAAGCA
CGAAAAGTGCTTCGGCACAATGCCCTTATTCAAGAGGTGATTAGCCAGTCAAGAGCTAGG
TTTAATCCCAGTATCAGCATGATTAAGAAGTGTATTGAAGTTCTGATAGACAAACAATAC
ATAGAACGCAGCCAGGCGTCGGCAGATGAATACAGCTACGTCGCGTGATGTCGCTCTCCT
CCAGCGTGGTGTGAGAAGATCATTGCCATCACCATTTGGTGTGTTCCTGTGGGAAAAAGC
AGGACTGTGCCTCCATAATTTGGTCATTTGGCAGCCCCTGTTTTCTGCTGTTTACAACAT
CACCAGTGCCACGTCATGAGCGTCAAAGAAAATGCCTAGAGATATTTCAAGCTCATGTCA
TTATGACATTTCTTAAAACTTTATTAAAAGAATGAGTGAAGTATTGCTGAAAAGTGGAAA
TTCGGTTGGGTACCATGCTTTTTCTCCCCTTCACGTTTGCAGTTGATGTGTCTTTTTTTT
TTTTTTTAATGTATCTTAAAGGACATAAAATTTAAAAACTTAAATATTGTAATATGACAG
ATAACCTAATAATTGTATCTACATTAAAATGACAAACATGATACTGCTGCTTGTCAAATA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN:	NM_003591
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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_003591.2, NP_003582.2
RefSeq Size:	2910 bp
RefSeq ORF:	2238 bp
Locus ID:	8453
UniProt ID:	Q13617
Cytogenetics:	10p11.21
Domains:	CULLIN
Protein Families:	Druggable Genome
Protein Pathways:	Pathways in cancer, Renal cell carcinoma, Ubiquitin mediated proteolysis

Gene Summary: Core component of multiple cullin-RING-based ECS (ElonginB/C-CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of target proteins. ECS complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed:27565346). May serve as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme. The E3 ubiquitin-protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and is inhibited by the association of the deneddylated cullin subunit with TIP120A/CAND1. The functional specificity of the ECS complex depends on the substrate recognition component. ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF).[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (3) differs in the 5' UTR and coding sequence compared to variant 1. The resulting isoform (c) is shorter at the N-terminus compared to isoform a. Variants 3 and 4 both encode the same isoform (c). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.