

Product datasheet for **MG210588**

Cul1 (NM_012042) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cul1 (NM_012042) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cul1
Synonyms:	Cul-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210588 representing NM_012042
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCATCAAACAGGAGTCAGAATCCTCATGGACTGAAGCAGATTGGTCTTGACCAGATCTGGGATGACC
 TCAGAGCTGGAATTCAGCAGGTGTATACCAGACAAAGCATGGCAAAGTCCAGATACATGGAATCTACAC
 TCATGTTTATAACTACTGTACTAGTGTGCATCAGTCCAACCAAGCCCGGGTCTGGAGTCCCTCCTTCC
 AAGTCAAAAAGGGGAGACTCCTGGGGAGCTCAGTTTGTGGCTTGGAGTTATAACAAGCGATTGAAGG
 AATTTTTGAAGAATTATTTGACAAATCTTCTAAGGATGGAGAAGATTTAATGGATGAGAGTGTCTGAA
 GTTCTACACTCAGCAGTGGGAAGATTACCGATTCTCCAGCAAAGTGTGAATGGAATCTGTGCCTACCTC
 AATAGACATTGGGTTCCCGTGAATGTGATGAAGGACGAAAAGGAATATATGAAATCTATCACTTGCAT
 TGGTGACATGGAGAGATTGTTTGTTCAGGCCATTGAATAAACAGGTAACAAATGCTGTTTTAAAGTTGAT
 TGAAAAGGAAAGAAATGGAGAAACCATCAATACAAGACTGATTAGTGGAGTTGTACAATCTTATGTGAA
 TTGGGGCTGAATGAAGATGATGCATTTGCAAAGGGCCCTACGTTAACAGTGTATAAAGAATCCTTTGAAT
 CTCAATTTTTGGCTGACACAGAGAGATTTATACCAGAGAAAGTACTGAATTCCTACAGCAGAACCCAGT
 TACTGAATATATGAAAAGGCTGAAGCTCGTTTGCTTGAGGAACAGCGGAGAGTTTACGTTTACCTCCAC
 GAGAGCACACAAGATGAACTAGCACGGAATGTGAGCAGGTCTCATTGAAAAACTTGGAAAATTTTTC
 ACACAGAGTTTCAGAATTTATGGATGCTGACAAGAATGAAGATTTGGCCCGCATGTATAATCTTGATC
 TAGAATTCAGGATGGCCTAGGAGAATGAAAAACTACTAGAGACACATATTCATAATCAGGGTCTTGCA
 GCAATTTGAGAAGTGTGGAGAAGCTGCTCTAAATGACCCCAAGATGTATGTGCAGACAGTGTGGATGTT
 ATAAAAATACAATGCCCTGGTGTGATGTCAGCATTCAACAACGATGCTGGCTTCGTAGCTCTTGATAA
 GGCTTGTGGTCGCTTCATAAACAACAATGCGGTTACCAAAATGGCCAGTCATCCAGTAAATCCCTGAG
 CTGCTTGCTCGGTACTGTGACTCCTTGCTGAAGAAAAGTTCCAAGAACCAGAAGAGGCAGAACTAGAAG
 ACACCCTCAATCAAGTGTGGTGGTCTTCAAGTACATCGAGGACAAAGATGTATTTCAGAAGTTCTATGC
 AAAGATGCTTGCCAAGAGACTGGTACATCAAAACAGTGCAGTGACGATGCTGAAGCAAGCATGATCTCC
 AAGTTAAAGCAAGCTTGTGGTTTTGAGTACACTCCAACTTCAGCGAATGTTTCAAGACATTGGTGTA
 GCAAAGATCTGAATGAACAGTTCAAAAACACCTGACGAATTCAGAACCCTGGACTTGGACTTCAGTAT
 TCAGGTCCTGAGTCTGGATCGTGGCCCTTTCAGCAGTCTGCACGTTTGCCTTGCCGTCAGAGTTGGAG
 CGCAGTTATCAGCGATTTACAGCTTTCTACGCCAGCCGTCACAGTGGCAGAAAATGACATGGTTGTATC
 AACTGTCCAAAGGGAACTAGTCACTAACTGCTTCAAAAACAGATACACTTTGCAGGCGTCCACATTTCA
 GATGGCAATCCTGCTTCAAGTATAACACAGAAGACGCCTATACTGTGCAGCAGTTGACTGACAGCACTCAG
 ATTAATAATGGACATTTTGGCACAAGTCTACAGATTTTACTGAAGTCGAAATGCTGGTCTTAGAAGATG
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 TAAGAAATGAGGGTTAATATCAATGTACCAATGAAAACCTGAACAGAAGCAGGAACAAGAAACTACACAC
 AAAAATATAGAGGAAGACCGCAAACCTACTGATTACGGCGCCATCGTGAGAATCATGAAATGAGGAAGG
 TCCTGAAACACCAGCAGTACTTGGTGAAGTCTCACTCAGCTCTCCTCCAGGTTCAAACCTCGGGTCCC
 GGTGATCAAGAAATGCATTGATATCTCATCGAAAAAGAATATTTGGAGCGAGTCGATGGTGAGAAGGAC
 ACCTACAGTTACTTGGCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210588 representing NM_012042
Red=Cloning site Green=Tags(s)

MSSNRSQNPGLKQIGLDQIWDDL RAGIQQVYTRQSMASRYMELYTHVYNYCTSVHQSNQARGAGVPPS
 KSKKGQTPGGAQFVGLLEYKRLKEFLKNYL TNLKDGEDLMDESVLKFYQWEDYRFSKVLNGICAYL
 NRHWVRRECDEGRKGIYEIYSLALVTRDCLFRPLNKQVTVNAV LKIEKERNGETINTRLISGVVQSYVE
 LGLNEDDAFAKGP TLTVYKESFESQFLADTERFYTR ESTEFLQQNPVTEYMKKAEARLLEEQR RVQVYLH
 ESTQDELARKCEQVLIEKHLEIFHTEFQNL LDADKNEDLGRMYNLVSRIQDGLGELK KLLLETHIHQGLA
 AIEKCGE AALNDPKMYVQTVL DVHKKYNALVMSAFNNDAGFVAALDKACGRFINNNAVTKMAQSSSKSPE
 LLARYCDSL LKKSSKNPEEALEDTLNQVMVFKYIEDKDV FQKFYAKMLAKRLVHQNSASDDAEASMS
 KLKQACGFEYTSKLQRMFQDIGVSKDLNEQFKHL TNSEPLDLDFSIQVLS SSGSWPFQ QSCTFALPSELE
 RSYQRFTAFYASRHSRKL TWL YQLSKGELVTNCFKNRYTLQASTFQMAILLQYNTEDAYTVQQLTDSTQ
 IKMDILAQVLQ ILLKSKLLVLEDENANVDEVELK PDTLIKLYLGYKNKLRVNI NVPMKTEQKQE QETHH
 KNIEEDRKL LIQAAIVRIMKMRKVLKHQQLLGEVLTQLSSRFKPRVPVIK KCIDILIEKEYL ERVDGEKD
 TYSYLA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012042

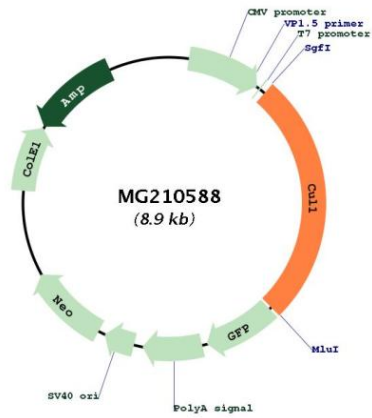
ORF Size: 2328 bp

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:	<ol style="list-style-type: none">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_012042.4
RefSeq Size:	3171 bp
RefSeq ORF:	2331 bp
Locus ID:	26965
UniProt ID:	Q9WTX6
Cytogenetics:	6 B2.3
Gene Summary:	<p>Core component of multiple cullin-RING-based SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of proteins involved in cell cycle progression, signal transduction and transcription. SCF complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins. In the SCF complex, serves as a rigid scaffold that organizes the SKP1-F-box protein and RBX1 subunits. 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 exchange of the substrate recognition component is mediated by TIP120A/CAND1. The functional specificity of the SCF complex depends on the F-box protein as substrate recognition component. SCF(BTRC) and SCF(FBXW11) direct ubiquitination of CTNNB1 and participate in Wnt signaling. SCF(FBXW11) directs ubiquitination of phosphorylated NFKBIA. SCF(BTRC) directs ubiquitination of NFKBIB, NFKBIE, ATF4, SMAD3, SMAD4, CDC25A, FBXO5 and probably NFKB2. SCF(BTRC) and/or SCF(FBXW11) direct ubiquitination of CEP68. SCF(SKP2) directs ubiquitination of phosphorylated CDKN1B/p27kip and is involved in regulation of G1/S transition. SCF(SKP2) directs ubiquitination of ORC1, CDT1, RBL2, ELF4, CDKN1A, RAG2, FOXO1A, and probably MYC and TAL1. SCF(FBXW7) directs ubiquitination of cyclin E, NOTCH1 released notch intracellular domain (NICD), and probably PSEN1. SCF(FBXW2) directs ubiquitination of GCM1. SCF(FBXO32) directs ubiquitination of MYOD1. SCF(FBXO7) directs ubiquitination of BIRC2 and DLGAP5. SCF(FBXO33) directs ubiquitination of YBX1. SCF(FBXO1) directs ubiquitination of BCL6 and DTL but does not seem to direct ubiquitination of TP53. SCF(BTRC) mediates the ubiquitination of NFKBIA at 'Lys-21' and 'Lys-22'; the degradation frees the associated NFKB1-RELA dimer to translocate into the nucleus and to activate transcription. SCF(CCNF) directs ubiquitination of CCP110. SCF(FBXL3) and SCF(FBXL21) direct ubiquitination of CRY1 and CRY2. SCF(FBXO9) directs ubiquitination of TTI1 and TELO2. SCF(FBXO10) directs ubiquitination of BCL2.[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MG210588