

Product datasheet for **MG215691**

Cul2 (NM_029402) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cul2 (NM_029402) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cul2
Synonyms:	1300003D18Rik; 4932411N15Rik; AI327301; mKIAA4106
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG215691 representing NM_029402
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCTTTAAACCAAGAGTAGTGGATTTTGTAGAGACATGGAACAAACTCCTAACTACAATCAAAGCTG
 TTGTTATGTTGGAATATGTCGAGCGAGCAACATGGAATGACCGCTTCTCAGATATCTATGCTTTATGTGT
 GGCTATCCTGAACCACTTGGAGAAAGACTTTATGCGGAAACAAAGATTTTTTTGGAAAGTCACGTTTCGG
 CATTGTATAAGAGAGTTCTGGAGTCTGAAGAACAAGTCTTGTATGTATCATAGGTAAGTGGGAAGAAT
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 AGTATATGGAAAAGGTTCTAGGTAGATTAAGAAATGAAGAAATAGATGTCGAAAATATTTGCATCCAAG
 TTCATATACTAAAGTGATTATGAGTGTGAGCAGCGGATGGTAGCAGACCACTTACAGTTCTTACATTCA
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 CAAGAGGTAATCAGCCAGTCAAGAGCCAGGTTCAATCCAGTATCAGCATGATTAAGAAGTGCATAGAAG
 TTCTGATAGACAAACAGTACATCGAGCGCAGCCAAGCATCTGCAGATGAATACAGTTACGTCGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG215691 representing NM_029402
 Red=Cloning site Green=Tags(s)

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MSLKPRVVDVDFDETWNKLLTTIKAVVMLEYVERATWDRFSDIYALCVAYPEPLGERLYAETKIFLESHVR
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ELALDMWRKLMVEPLQNILIRMLLREIKNDRGGEDPNQKVIHGVINSFVHVEYQYKKKFKFYQGIFVSP
FLTETGEYYKQEAASLLQESNCSQYMEKVLGRLKDEEIRCRKYLHPSSYTKVIHECQQRMVADHLQFLHS
ECHSIIQQRKNDMANMYVLLRAVSSGLPHMIEELQKHIHDEGLRATSNLTQEHMPTLFVESVLEVHGKF
VQLINTVLNGDQHFMSALDKALTSVVNYREPKSVCKAPELLAKYCDNLLKKSAGMTENEVEDKLTFSFIT
VFKYIDDKDVFQKFYARMLAKRLIHGLSMSMDSEEAMINKLKQACGYEFTSKLHRMYTDMVSADLNKFK
NNFIRNQDVIDLGISFQIYVLQAGAWPLTQAPSSTFAIPQELEKSVQMFELFYSQHFSGRKLTLWHLK
TGEVKMNYLGKPYVAMVTTYQMAVLLAFNNSETVSYKELQDSTQMNKELTKTIKSLLDVKMINHDSEKE
DIDAESSFSLNMSFSSKRTKFKITTSMQKDTPQELEQTRSAVDEDRKMYLQAAIVRIMKARKVLRHNALI
QEVISQSRARFNPSISMIKKCIEVLIDKQYIERSQASADEYSYVA
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_029402

ORF Size: 2235 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_029402.3](#), [NP_083678.2](#)

RefSeq Size: 4158 bp

RefSeq ORF: 2238 bp

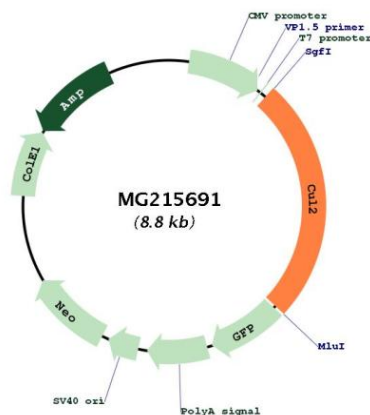
Locus ID: 71745

UniProt ID: [Q9D4H8](#)

Cytogenetics: 18 A1

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 (By similarity). 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 (By similarity). The functional specificity of the ECS complex depends on the substrate recognition component. ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF) (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG215691