

Product datasheet for **MR209424**

Cul4b (NM_001110142) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cul4b (NM_001110142) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cul4b
Synonyms:	2700050M05Rik; AA409770; CUL-4B; mKIAA0695
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209424 representing NM_001110142
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCACGTTCAACTAGTCTAAAGAAAGAAGAGAGAATGACACCGACTCAGAAGATAACAGTTCGGAAA
 CCTCCAATCAAGAGCGCCGAAGGTGTGCGCAAGGTCCGCCCGCCCTCCCTATCCACCTCTTTACCCCC
 CGTGTTCCTCCCCCAACCCCCCACTCAAGTCCGGCGGACCCGGGGGTTTCAGGATCTGGGAGCTATG
 AAAAGTGTCTGCCAGGCACTTCCGGTTTTTCTCCCAATCCCTCTGTGCTTCTGCTGCTCAGG
 AGGTCAGATCTGCCACTGATGGTAATACCAGCACCCTCCGCCACCTCTGCCAAGAAGAGAAAGTTAAA
 CAGCAGCAGTAGCAGCAGTAACAGTAGTAACGAGAGAGAAGACTTTGATTCACCTCTTCTCTCCACC
 CCTCCACAACCCAGAGATTCGGCGTCCCCTTCAACCTCGTCTTCTGCCTGGGGTTCCAGTGGCCACTT
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 AAGAGGGCAAAAAAGAACTTCAGGCTCTCTTTTTCAAACCATGGTGTCTGCTAATGTTTAAATGAAGGAGA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR209424 representing NM_001110142
 Red=Cloning site Green=Tags(s)

MSRSTRSKERRENDTSEDNSSETSNQERRRCRQPPRPYPPLLPVFPPTPPPQVRRTRGLQDLGAM
 KSVCPGTSFGFSSPNPSAASAAAQEVRSATDGNSTTTPPTS AKKRKLNSSSSSSNSNEREDFDSTSSSST
 PPQPRDSASPSTSSFCLGVPVATSSHVPIQKKLRFEDTLEFVGIDTKMAEESSSSSSPTAATSQQQQ
 QQQLKTKSILISSVASVHHANGLAKSSTAVSSFANSKPGSAKKLVIKNFKDKPKLPENYTDWQKLKEA
 VEAIQNSTSIKYNLEEL YQAVENLCSHKISANLYKQLRQICEDHIKAQIHQFREDSLDSVLFKKIDRCW
 QNHCRQMIMIRSIFLFLDRTYVLQNSMLPSIWDMGLEL FRAHIISDQKVQTKTIDGILLLIERERNGEAI
 DRSLRLSLLSMLSDLQIYQDSFEQQFLQETNRLYAAEQQLMQEREVPEYLHHVNRLEEEADRLLITYLD
 QTTQKSLIASVEKQLLGEHLTALQKGLNSLLDENRIQDLSLLYQLFSRVGGVQVLLQQWIEYKAFGS
 TIVINPEKDKTMVQELDFDKVDHIIDTCFLKNEKF INAMKEAFETFINKRPNKPAELIAKYVDSKLR
 GNKEATDEELEKMLDKIMIIIFRFIYGKDVFEAFYKDLAKRLLVGKSASVDAEKSMKSLKHECGAAFTS
 KLEGMFKDMELSKDIMIQFKQYMQNQVPGNIELTVNILTMGYWPTYVPMVHLPPMEVQLQEIKFTFYL
 GKHSGRKLQWQSTLGHCVLKAEFKEGKELQVSLFQTMVLLMFNEGEEFSLEEIKHATGIEDGELRRTLQ
 SLACGKARVLAKNPKGKDIEDGDKFICNDDFKHKLFRIKINQIQMKETVEEQASTTERVQDRQYQIDAA
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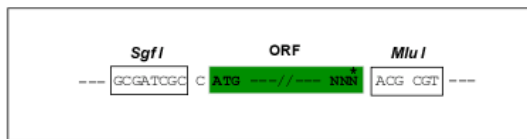
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9034_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



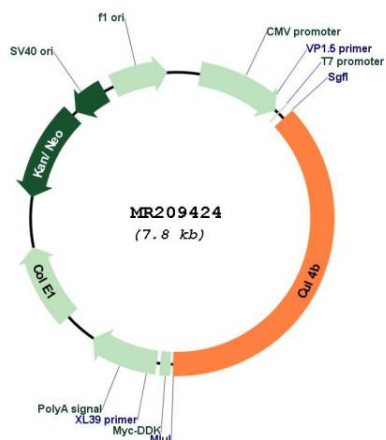
* The last codon before the Stop codon of the ORF

ACCN: NM_001110142

ORF Size: 2910 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_001110142.1 , NP_001103612.1
RefSeq Size:	5079 bp
RefSeq ORF:	2913 bp
Locus ID:	72584
UniProt ID:	A2A432
Cytogenetics:	X A3.3
MW:	111.1 kDa
Gene Summary:	Core component of multiple cullin-RING-based E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins. The functional specificity of the E3 ubiquitin-protein ligase complex depends on the variable substrate recognition subunit. CUL4B may act within the complex as a scaffold protein, contributing to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme. Plays a role as part of the E3 ubiquitin-protein ligase complex in polyubiquitination of CDT1, histone H2A, histone H3 and histone H4 in response to radiation-induced DNA damage. Targeted to UV damaged chromatin by DDB2 and may be important for DNA repair and DNA replication. Required for ubiquitination of cyclin E, and consequently, normal G1 cell cycle progression. Regulates the mammalian target-of-rapamycin (mTOR) pathway involved in control of cell growth, size and metabolism. Specific CUL4B regulation of the mTORC1-mediated pathway is dependent upon 26S proteasome function and requires interaction between CUL4B and MLST8 (By similarity). With CUL4A, contributes to ribosome biogenesis (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209424