

## Product datasheet for **MC222909**

### **Cul4b (NM\_001110142) Mouse Untagged Clone**

#### **Product data:**

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



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**Fully Sequenced ORF:** >MC222909 representing NM\_001110142  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCACGTTCAACTAGTCTAAAGAAAGAAGAGAGAATGACACCGACTCAGAAGATAACAGTTCGGAAA  
 CCTCCAATCAAGAGCGCCGAAGGTGTGCCAAGGTCCGCCCGCCCTCCCTATCCACCTCTTTACCCCC  
 CGTGTTCCCTCCCCCAACCCCCCACTCAAGTCCGGCGGACCCGGGGGTTTCAGGATCTGGGAGCTATG  
 AAAAGTGTCTGCCAGGCACTTCCGGTTTTTCTCCCAATCCCTCTGCTGCTTCTGCTGCTCAGG  
 AGGTCAGATCTGCCACTGATGGTAATACCAGCACCCTCCGCCACCTCTGCCAAGAAGAGAAAGTTAAA  
 CAGCAGCAGTAGCAGCAGTAACAGTAGTAACGAGAGAGAAGACTTTGATTCACCTCTTCTCTCCACC  
 CCTCCACAACCCAGAGATTCGGCGTCCCCTTCAACCTCGTCTTCTGCCTTGGGGTTCAGTGGCCACTT  
 CCAGCCACGTACCTATACAGAAGAAGCTGCGGTTTGAAGACACCCTGGAGTTTGTAGGGATTGATACGAA  
 AATGGCTGAGGAATCTTCTCCTCATCTTCTCATCTTCGCCAAGTCTGCAACCTCACAGCAGCAGCAG  
 CAGCAACAACCTAAAACCTAAGAGTATATTAATTTCTTCTGTGGCTTCAGTGCACCATGCAAAACGGCTGG  
 CTAATCTTCTACCGCGGTCTCTAGCTTTGCTAACAGCAAGCCCGGCTCAGCTAAGAAGTTAGTGATCAA  
 GAACCTTTAAAGATAAGCCTAAATACCAGAAAATACGGATGAGACATGGCAAAAGCTAAAAGAAGCA  
 GTGGAAGCCATTGAGAATAGTACTTCAATTAAGTACAATTTAGAAGAAGTCTACCAGGCTGTAGAAAATC  
 TTTGTTCTCATAAGATTTCTGCAAAATTTGTATAAGCAGCTGAGGCAGATATGTGAAGATCACATCAAAGC  
 ACAGATTCATCAGTTCAGAGAGGATTATTGGATAGTGTCTTTTTCTCAAAAAGATCGATAGATGCTGG  
 CAAAACCACTGTAGGCAATGATAATGATCAGGAGCATTTTTTGTCTGGATAGAAGTATGTTCTTC  
 AGAATCAATGCTACCTCCATTTGGGACATGGGATTAGAGTATTTAGGGCTCATATTAAGTGATCA  
 AAAAGTACAGACAAAAACGATTGATGGCATCTTCTCTTGATTGAGAGAGAGCGGAATGGTGAAGCAATT  
 GATAGAAGTTTACTTCGAAGCCTTTAAGTATGCTGTCTGATTTGCAATTTACCAAGATCTTTTGAAC  
 AGCAATTTTGAAGAACTAATCGGCTTTACGCAGCCGAAGGTCAGAAGTTAATGCAAGAAAGAGAGGT  
 TCCTGAGTATCTTCATCATGTTAATAAACGCCTAGAAGAAGAAGCTGACAGACTTATTACTTACTTAGAT  
 CAGACCACCCAGAAGTCACTAATTGCTTCTGTTGAAAAACAATCTAGGTGAACACTTAACGGCAATTC  
 TTCAAAAAGGTTTAAATAGCCTCCTTGATGAAAACCGAATCAAGATTTGTCTCTCTGTATCAGCTCTT  
 CAGTAGAGTTCGGGTGGAGTTCAGGTTCTTACAGCAGTGGATTGAGTATATCAAGGCTTTTGAAGT  
 ACCATTGTTAATCCTGAAAAAGATAAACTATGGTTCAAGAATTATTGGACTTTAAAGATAAAGTTG  
 ACCATATAAATTGATACCTGCTTTCTGAAAAATGAAAAATTTATCAATGCCATGAAAGAAGCTTTTGAAC  
 ATTCATTAATAAAAAGACCAAAATAGCCAGCTGAAGTATAGTAAAGTATGTGGATTCAAAAACCTCGTGCA  
 GGCAACAAAGAAGCTACAGATGAAGAGCTTGAGAAAATGTTGGATAAAAATGATTATATTTAGATTTA  
 TCTATGGTAAAGATGTTTTGAGGCCTTCTATAAGAAAGATTTAGCCAAACGCCTATTAGTTGGCAAGAG  
 TGCATCAGTAGATGCTGAAAAATCAATGCTGTCCAACTGAAACACGAATGTGGAGCCGCTTTTACCAGC  
 AAGCTTGAAGGAATGTTCAAAGACATGGAGCTTCTAAAGATATCATGATTCAGTTTAAACAGTATATGC  
 AGAACCAGAATGTACCTGGCAATATTGAATTAAGTGTAAATATCTGACAATGGGTTACTGGCCAACATA  
 TGTGCCTATGGAAGTCCATTTGCCGCAGAGATGGTAAAGCTTCAGGAAATTTTCAAGACATTTTACTTTA  
 GGCAAGCACAGTGGCAGGAACTCCAGTGGCAGTCAACCTTGGGACACTGTGTGCTAAAAGCTGAATTTA  
 AAGAGGGCAAAAAAGAACTTCAGGTCTCTTTTTTCAAACCATGGTGTCTGCTAATGTTTAAATGAAGGAGA  
 AGAATTCAGTTTAGAAGAGATCAAGCATGCTACTGGGATAGAGGATGGAGAATTAAGAAGAACACTGCAG  
 TCACTAGCCTGTGGCAAAGCTAGAGTCTGGCTAAAAATCCTAAGGGCAAAGATATTGAAGATGGTGACA  
 AATTTATTTGTAATGACGATTTCAAACACAACTATTCAAGGATAAAGATCAATCAATCCAGATGAAAGA  
 AACGGTTGAAGAACAAGCAAGCACTACAGAAAGAGTATTTCAAGACAGACAGTACCAATGATGCTGCG  
 ATCGTTGCAATTATGAAGATGAGAAAAACACTTAGCCACAATCTTCTGTTTTCAGAAGTCTACAATCAGC  
 TAAAATTTCCAGTTAAACCTGCTGATCTTAAGAAGAGAATAGAATCCCTCATTGACCGGGACTACATGGA  
 AAGAGATAAAGAAAATCCAAATCAGTACAACCTATATTGCAT**AG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001110142
<b>Insert Size:</b>	2913 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001110142.1</a> , <a href="#">NP_001103612.1</a>
<b>RefSeq Size:</b>	5079 bp
<b>RefSeq ORF:</b>	2913 bp
<b>Locus ID:</b>	72584
<b>UniProt ID:</b>	<a href="#">A2A432</a>
<b>Cytogenetics:</b>	X A3.3
<b>Gene Summary:</b>	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]