

Product datasheet for **MC221182**

Dtl (NM_029766) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dtl (NM_029766) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Dtl
Synonyms:	2810047L02Rik; 5730564G15Rik; L2dtl; Ramp
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC221182 representing NM_029766
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCTCTTCAACTCGGTACTCCGCCAGCCGAGCTCGGCGTCTGAGAACGGTGGTCTTCACATTACC
 CTCTACAATCCCTTCTAAGTGGTTATCAGTGCAACTGTAAACGATGAACACACGTCTTATGGAGAAACAGG
 AGTCCCAGTTCCTCTTTTGGATGCACCTTCTGTACCGCTCCAGTATGGAGCATATATTAGCAGTTGCT
 AATGAAGAAGGCTTTGTGAGATTATATAATACAGAATCACAACTAGCAAAAAGACATGCTTCAAGGAGT
 GGATGGCTCACTGGAATGCTGTCTTTGACTTGGCCTGGTCCCTGGTGAACCTTAACTTGTACAGCAGC
 CGGTGATCAGACAGCCAAATTTGGGATGTAAGAGCTGGTGAAGCTGATGGGGACATGCAAAGGCCACCAG
 TGCAGCCTCAAGTCTGTAGCCTTCCCAAGTTCAAAAAGCTGTGTTCTCTACAGGGGGAGAGACGGCA
 ACATTATGATCTGGGACACCAGGTGTAAACAAAAAGATGGATTTTATAGACAAGTGAATCAAATCAGTGG
 AGCTCACAACTGCAGACAAGCAAACCCCTTCAAAGCCCAAGAAGAAAACAAAATCAAAGGACTTGTCT
 CCTGCTGTGGATCCCAGCAGAGTGTACTGTGGTCTCTTTTCCAGGATGAGAATACATTAGTCTCAGCAG
 GAGCCGTGGATGGAATAATCAAAGTATGGGATTTGCGCAAGAATTACACTGCTTATCGACAAGAACCAT
 AGCATCCAAGTCTTCTGTACCCAGGTACCAGCACTCGAAAGCTAGGATACTCGAGTTTGGTTTTAGAC
 TCTACTGGCTCTACTTTATTTGCTAACTGCACAGATGACAACATCTATATGTTCAATATGACTGGCTTAA
 AGACTTCTCCGGTGGCTGTCTTCAATGGACACCAGAAGTCTACCTTTTATGTAATAATCAAGTCTTAGTCC
 AGATGACCAGTTTTTAATCAGTGGTCAAGTGTGAAGCTGCCTACATTTGGAAGTTTCCATGCCATGG
 CATCCTCTACTGTCTCTGGTCAATCTCAAGAGTCAAGTCTGTGTGCTGGTGTCCATCAGACTTCA
 CCAAGATTGCAACCTGCTGATGATAATACACTGAAAATCTGGCGCTTGAATAGAGGCTAGAGGAGAA
 ACCAGGTGATAAACATTCCATAGTGGTGGACCTCTCAGAAGAAAAAGAAAGTGAAGCCTGCCAGTA
 ACGGTACCAAGTAGCCAGAGTACTCCTGCCAAAGCTCCAGAGCCAAGAGCAGTCCATCCATCTCCTCTC
 CTTCTGTCAGCAGTTGTACTCCGAGCTGTGCAGGAGACCTCCCTCTTCTTCAAGTACCCCCACATTCTC
 AGTCAAAACCACTCCTGCCACGACCCGTTCTTCCAGTCAAGAGAGGCTCCATCTCTTCTGTGTCTCCC
 AAGCCACTCTCATCTTCAAGATGTGCTTAGAACTGGGTGACCCGAACACCTTCTCATCACCACCTG
 TCACTCCACCTGCTTCTGAGACAAAGATCTCATCTCAAGAAAAGCTCTTATTCTGTGAGCCAGAAGTC
 ATCACAGGCAGATGCTTGTCTGAATCTAGAAATAGAGTGAAGAGGCGTCTTGAAGTCAAGTGTCTGGAG
 AGTGTGAAACAAAAGTGTGTAAGAGTTGCAACTGTGTCAGTCTGAGCTTACCGCCAAAGCGGAGAGTCTT
 GTTTGGATCTGTGCTGCCTTCCGGCACCCAGGAAGTCCCTAGCCAAGACTCCGAGGGTCCCTACCAATC
 AAGCAAGACTGAAGGTGCTGGCACAAGCATCTCAGAACCCTCTTCTCTGTGAGTCTTATGCTTCTGAA
 GGCTGTGGACCACTGCCTCTTCTTTGAGACCTTGTGGAGAAGGATCTGAGATGGTGGGCAAGAGAATA
 GCTCTCCAGAGAATAAGAACTGGTTGTTGGCCATAGCAGCCAAACGCAAGGCAGAAAATTCATCCCCAAG
 AAGTCCATCATCTCAGACACCCAGTCCAGGAGACAAAGTGGGAAGACGTACCAGGCCCGGTACCATT
 ACTCCAGCTCCATGAGGAAGATATGTACATACTTTCGTAGAAAAGACTCAAGATGACTTCTGCAGTCTG
 AACACTCAACTGAATTA TAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_029766
Insert Size: 2190 bp
OTI Disclaimer:

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).

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:	<u>NM_029766.3</u> , <u>NP_084042.1</u>
RefSeq Size:	4221 bp
RefSeq ORF:	2190 bp
Locus ID:	76843
UniProt ID:	<u>Q3TLR7</u>
Cytogenetics:	1 H6
Gene Summary:	<p>Substrate-specific adapter of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex required for cell cycle control, DNA damage response and translesion DNA synthesis. The DCX(DTL) complex, also named CRL4(CDT2) complex, mediates the polyubiquitination and subsequent degradation of CDT1, CDKN1A/p21(CIP1), FBH1, KMT5A and SDE2. CDT1 degradation in response to DNA damage is necessary to ensure proper cell cycle regulation of DNA replication. CDKN1A/p21(CIP1) degradation during S phase or following UV irradiation is essential to control replication licensing. KMT5A degradation is also important for a proper regulation of mechanisms such as TGF-beta signaling, cell cycle progression, DNA repair and cell migration. Most substrates require their interaction with PCNA for their polyubiquitination: substrates interact with PCNA via their PIP-box, and those containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to their degradation. In undamaged proliferating cells, the DCX(DTL) complex also promotes the 'Lys-164' monoubiquitination of PCNA, thereby being involved in PCNA-dependent translesion DNA synthesis. The DDB1-CUL4A-DTL E3 ligase complex regulates the circadian clock function by mediating the ubiquitination and degradation of CRY1 (By similarity).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) encodes the longer isoform (1).</p>