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Product datasheet for MR216290

Dtl (NM_029766) Mouse Tagged ORF Clone

Product data:

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

ORF Nucleotide Sequence:

>MR216290 representing NM_029766
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCTTCAACTCGGTACTCCGCCAGCCGCAGCTCGGCGTCCTGAGGAACGGGTGGTCTTCACATTACC
CTCTACAATCCCTTCTAAGTGGTTATCAGTGCAACTGTAACGATGAACACACGTCTTATGGAGAAACAGG
AGTCCCAGTTCCTCCTTTTGGATGCACCTTCTGTACCGCTCCCAGTATGGAGCATATATTAGCAGTTGCT
AATGAAGAAGGCTTTGTCAGATTATATAATACAGAATCACAAACTAGCAAAAAGACATGCTTCAAGGAGT
GGATGGCTCACTGGAATGCTGTCTTTGACTTGGCCTGGGTCCCTGGTGAACTTAAACTTGTTACAGCAGC
CGGTGATCAGACAGCCAAATTTTGGGATGTAAGAGCTGGTGAGCTGATGGGGACATGCAAAGGCCACCAG
TGCAGCCTCAAGTCTGTAGCCTTTCCCAAGTTTCAAAAAGCTGTGTTCTCTACAGGGGGGAGAGACGGCA
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AGCTCACAATACTGCAGACAAGCAAACCCCTTCAAAGCCCAAGAAGAAACAAAATTCAAAAGGACTTGCT
CCTGCTGTGGATTCCCAGCAGAGTGTTACTGTGGTCCTCTTTCAGGATGAGAATACATTAGTCTCAGCAG
GAGCCGTGGATGGAATAATCAAAGTATGGGATTTGCGCAAGAATTACACTGCTTATCGACAAGAACCCAT
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CATCCTCCTACTGTGCTCCTGGGTCATTCTCAAGAGGTCACGTCTGTGTGCTGGTGTCCATCAGACTTCA
CCAAGATTGCAACCTGCTCTGATGATAATACACTGAAAATCTGGCGCTTGAATAGAGGCCTAGAGGAGAA
ACCAGGTGATAAACATTCCATAGTGGGTTGGACCTCTCAGAAGAAAAAAGAAGTGAAAGCCTGCCCAGTA
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GGCTGTGGACCACTGCCTCTTCCTTTGAGACCTTGTGGAGAAGGATCTGAGATGGTGGGCAAAGAGAATA
GCTCTCCAGAGAATAAGAACTGGTTGTTGGCCATAGCAGCCAAACGCAAGGCAGAAAATTCATCCCCAAG
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ACTCCCAGCTCCATGAGGAAGATATGTACATACTTTCGTAGAAAGACTCAAGATGACTTCTGCAGTCCTG
AACACTCAACTGAATTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR216290 representing NM_029766
Red=Cloning site Green=Tags(s)

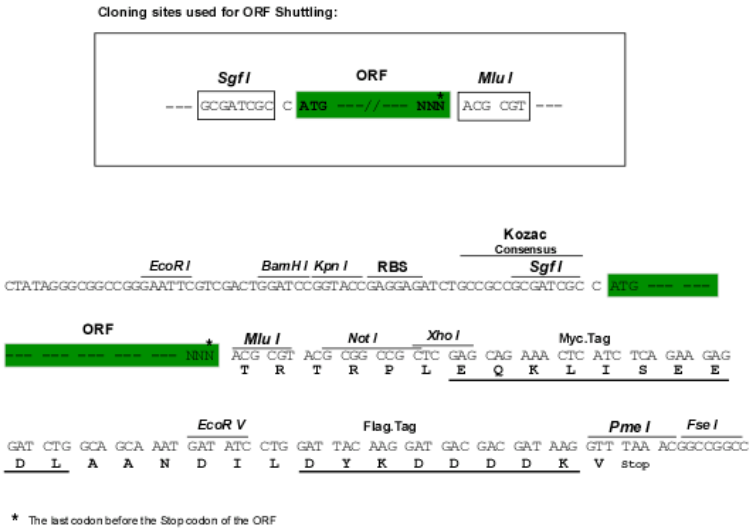
MLFNSVLRQPQLGVLRNGWSSHYPLQSLLSGYQCNCNDEHTSYGETGVPVPPFGCTFCTAPSMEHILAVA
NEEGFVRLYNTESQTSKKTCFKEWMAHWNAVFDLAWVPGELKLVTAAGDQTAKFWDVRAGELMGTCKGHQ
CSLKSVAFPKFQKAVFSTGGRDGNIMIWDTRCNKKDGFYRQVNQISGAHNTADKQTPSKPKKKQNSKGLA
PAVDSQQSVTVVLFQDENTLVSAGAVDGIIKVWDLRKNYTAYRQEPIASKSFLYPGTSTRKLGYSSLVLD
STGSTLFANCTDDNIYMFNMTGLKTSPVAVFNGHQNSTFYVKSSLSPDDQFLISGSSDEAAYIWKVSMPW
HPPTVLLGHSQEVTSVCWCPSDFTKIATCSDDNTLKIWRLNRGLEEKPGDKHSIVGWTSQKKKEVKACPV
TVPSSQSTPAKAPRAKSSPSISSPSSAACTPSCAGDLPLPSSTPTFSVKTTPATTRSSVSRRGSISSVSP
KPLSSFKMSLRNWVTRTPSSSPPVTPPASETKISSPRKALIPVSQKSSQADACSESRNRVKRRLDSSCLE
SVKQKCVKSCNCVTELDGQAESLRLDLCCLSGTQEVLSQDSEGPTKSSKTEGAGTSISEPPSPVSPYASE
GCGPLPLPLRPCGEGSEMVGKENSSPENKNWLLAIAAKRKAENSSPRSPSSQTPSSRRQSGKTSPGPVTI
TPSSMRKICTYFRRKTQDDFCSPEHSTEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9046_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_029766

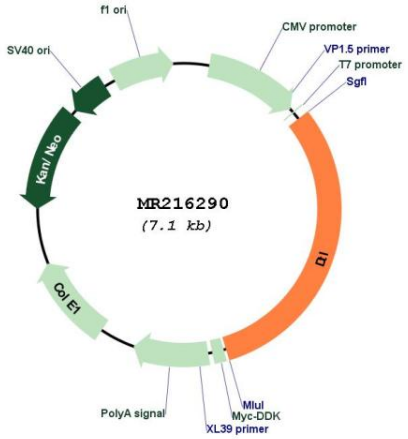
ORF Size: 2187 bp

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_029766.3, NP_084042.1
RefSeq Size:	4202 bp
RefSeq ORF:	2190 bp
Locus ID:	76843
UniProt ID:	Q3TLR7
Cytogenetics:	1 H6
MW:	79.6 kDa
Gene Summary:	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]

Product images:



Circular map for MR216290