

## Product datasheet for **MR210070**

### **Dtx3l (NM\_001013371) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dtx3l (NM_001013371) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dtx3l
Synonyms:	AU042200; BC023741
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR210070 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGGCTTCCAGTCCCACCCGCGTCCCGCTACTCGTACGGCTGCGGGAGTCCATCCCCAAGGCGCACA  
GGAAGCTCGAGATATACTTCCAGAGCCGGCCTCGGGAGGTGGGAGTGCCTGTGCCAGCCGTTGGGCC  
CAGCGCTCCGGACACCTACGAGGTGAAGTTCCTAAAAAGCAGATAAGGAGAAAGTGTGAAAAAGAGC  
GAACACGAGATGTTGGTCCATAACAACCTGTGACCATTGTCTGGAACTACTAAAAAGCCAGTAGAGG  
ACCTGAGACCCAGACTCCCATCCTTGACACAGCCAGTGGAGACACCAAGCTCCAGACCTCCGTCCTTAC  
GGGTCTCTGGATGAAGCACTTTGTGATGACATACATCCCAGGACGGGCTCGTTTCTAACTCTGTTGAC  
TCAGTTGTCCAAAAGATCTTCTTGCTGTGACCGCTGAGCTGAACTGTGACCTGCTCTCTAAAGAGCAGA  
GAGCATCTATAACCACTGTCTGCCCTCACATCAAAAAGCATGGAGGGTGTGATGGAATTAAGAAGGT  
GTGTGGCAACTTCAAAGATATTGAAAAGATACATCACTTCTTGTGAGTGTGAGCAGCTTTTGGAAACGGGAGCAG  
AAACGGAAGGGAAGCAGCAGAAACGGAAGTGCGCCACAGAAACACACACCTCCCGATGTGGAGCGGG  
AGCCCCGTGATCAGAGCAGTATTCAAGTTCCTGTGCTTCTCCTTGAATATTTCAAGCATGTTAATCCGGG  
TAGACTAGAGTTCATAGAGTACAAATTTGGTGTAAACATTGAAATCCAAGCTAGTTCTCCCAATATGGTC  
ACTGTAGGCTTCCCTCCAGCCATTTGGCAACGTAGAAGAAGCAAGTCAGTCTTTGTCCAGAGACTTTC  
AGAAATGCTCGCAGTCTCTGAAGCAAGATTGTATCTCTTTAGAGGAGCACCAGAGAGCAAAGGAGGTGAG  
ACAGGAGCTGAGTCGCTGCTTCCCAAAGCTTTGATAAAGGGACAGGGAAGAAGCAGTCTCTCCCGC  
TCTCCTGCTGACATTTACGCCGCCACAGAAAAGTCTCCCAAAGTCTTGGCCTGAGACCTGTGAAAATAA  
CCGATCTGGGTACACGACGGGCATCGAGTTCGATTCAACACGCTTTAAGCTTCTAGAGCCTGAACTGCT  
CCAGGAAATCTCAGAGATCGAGCAGAAGTTTAAACCCGTGGCAAAGTCCAGGAAAAAGGCCAGAAAACC  
TGCATTCTTTTGTCCCAAGGATAAAGACTTAGACCTGTGAGTGCAGTCTACACAGGTTTTACTGATG  
CCTTCCAGCGTCCACGTGGCAGCTGAGGACAGAAGTTCTGTGCTGAAAGGGTTGGGCAAGGAGAGAGC  
TCGCTTACACAATACCAAGTTTGGCCGACAATTTAAAAAGAGCACCCGAATGTGCACTTTGTGACATCT  
CAGGAGTCAGTGACCTTACTGGCTTGGCCATCACCTTGGCAGGCAATGCAGTATGTCTCCAAAAGAA  
TGGGACTGGCACCCTCATCTGGAGAGAACTCGCTATGGATCAGGAAACCCCATGGAGATCAGCAGTAG  
TGACCCCATGGAGTGCAGCAGGAGAATGCAGCCTTACCTGCTCCCGAGGCACCTTAGCAGCCCTGCA  
GCTTTCGAAGGGGACTGAGGACTACTGTGTCATCTGCATGGATACCATCAGCAACAAGCACGTGCTCCCA  
AGTGCAAGCATGAATTCGCACCTCGTGTATCAGCAAAGCCATGCTTATCAAGCCTGTCTGTCTGTGTG  
TCTGACTTCTACGGCATCCAGAAAGGGAACAGCCAGAGGGAACCATGTCTTACTCCACTCAAAAAGGG  
TCACTTCCAGGTTATGAAGGCTGTGGCACCATTGTGATTAATTATGAAATAAAAGATGGCATCCAAACAA  
AAGAGCACCCAAACCCAGGAAAGGCTTATCATGGAACACGGCAGAACTGCATACTTGCTGATAATACTGA  
GGGAAGAAAGGTTTTGGATCTGCTCCACGAAGCCTTTAAGCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210070 protein sequence  
Red=Cloning site Green=Tags(s)

MASSPDPSPPLL VRLRESIPKAHRKLEIYFQSRASGGGECVQPVGPSAPDTYEVKFLKKADKEKVLKKS  
 EHEMLVHNKPVTIVLETTKKPVEDLRPRLPSLTQPVETPSSRPPSLTGSLEALCDDIHPQDGLVSNVSD  
 SVVQKIFLAVTAELNCDLLSKEQRASITTVCPHIKSMEGSDGIKKVCGNFKDIEKIHFLSEQLLREQ  
 KRKGSEQKRKCAPQKHTPPDVEREPPDQSSIQVPVLLLEVFKHVNPGRLEFIEYKFGVNIEIQASSPNMV  
 TVGFTSSPFGNVEEASQSFVRDFQKCSQSLKQDCISLEEHQRAKEVRQELSRCFPKLLIKGQGRLLTLLG  
 SPADISAATEKVSQGLLRPVKITASGYTTGIEVDSTRFKLLEPELLQEISEIEQKFNTRGKVQEKGGQKT  
 CILFVPKDKDLDSVQSYTGFTDAFQRATWQLRTEVLSLKGLGKERARLHNTKFADNFKKEHPNVHFVTS  
 QESVTLTGLPHHLAQAMQYVSKRMGLAPSSGEKLAMDQETPMEISSDPHGGQENAAAPAPRGTSSSPA  
 ASKGTEDYCVICMDTISNKHVLPKCKHEFCTSCISKAMLKPVCPVCLTSYGIQKGNQPEGTMSYSTQKG  
 SLPGYEGCGTIVINYEIKDGIQTKEHPNPGKAYHGTRRTAYLPDNTGRKVLDLLHEAFKH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001013371

**ORF Size:** 2076 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\\_001013371.1](#)

**RefSeq Size:** 5181 bp

**RefSeq ORF:** 2247 bp

**Locus ID:** 209200

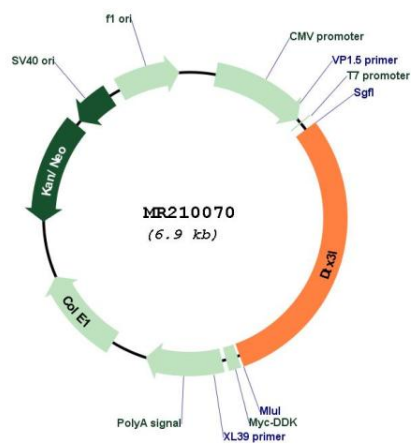
**UniProt ID:** [Q3UIR3](#)

**Cytogenetics:** 16 B3

**MW:** 76.6 kDa

**Gene Summary:** E3 ubiquitin-protein ligase which, in association with ADP-ribosyltransferase PARP9, plays a role in DNA damage repair and in interferon-mediated antiviral responses. Monoubiquitinates several histones, including histone H2A, H2B, H3 and H4. In response to DNA damage, mediates monoubiquitination of 'Lys-91' of histone H4 (H4K91ub1). The exact role of H4K91ub1 in DNA damage response is still unclear but it may function as a licensing signal for additional histone H4 post-translational modifications such as H4 'Lys-20' methylation (H4K20me). PARP1-dependent PARP9-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites. By monoubiquitinating histone H2B HIST1H2BH/H2BJ and thereby promoting chromatin remodeling, positively regulates STAT1-dependent interferon-stimulated gene transcription and thus STAT1-mediated control of viral replication. Independently of its catalytic activity, promotes the sorting of chemokine receptor CXCR4 from early endosome to lysosome following CXCL12 stimulation by reducing E3 ligase ITCH activity and thus ITCH-mediated ubiquitination of endosomal sorting complex required for transport ESCRT-0 components HGS and STAM. In addition, required for the recruitment of HGS and STAM to early endosomes.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR210070