

## Product datasheet for **MR207211**

### **Dclre1b (BC011094) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dclre1b (BC011094) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dclre1b
Synonyms:	AI452214; Apollo; mSNM1B; SNMIB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR207211 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACTGTAACGCTCATAGATGCCAATCACTGCCCTGGTTCTGTCATGTTTCTTTGAAGGATACTTTG  
 GAACAATTCTATACACAGGTGATTTTCGATATACACCATCCATGCTGAAGGAACCTGCTCTGATACTGGG  
 GAAACAGATTCATACTTTGTATCTAGACAACACTAATTGCAATCCAGCCCTGGTTCTTCTCCCGACAA  
 GAGGCTACTCAGCAGATTGTCCAGCTAATCCGACAGTTCCACAACAACAATAAAAAATTGGACTCTATA  
 GTCTAGGAAAAGAATCACTGCTGGAGCAACTAGCCCTTGAGTTTCGGACCTGGGTGGTATTAAGTCTCA  
 ACGCCTGGAGTTGGTACAGTTGCTGGGCCTGGCAGACGTGTTACAGTTGAGGAAGAAGCCGGGCGCATC  
 CATGCTGTGGACCATACGGAGATCTGCCATTCTGCCATGCTTCAGTGAACCAGAGTCACCCCTACCATTG  
 CTATTTTCCCAAGCCGAAAGTGCGCAGCCCTCACCCAGCATCTACACCGTCCCGTACTCTGACCA  
 CTCATCTTACTCCGAGCTCCGTGCTTTTGTGGCGCGCTGAGGCCCTGTCAGGTGGTCCCATCGTCCAT  
 CAAAAGCCTTGTGGAGAGTTCTTTCAGGACAGCTTGAGTCTAGGCTCGCTATGCCTCTGATTCCCACT  
 CTGTGCAGCAGTACATGAGTTCCTCTCTAGGAAAACAAATGTGCTTTGGCAGTTAGAAAGGAGGCTCAA  
 GAGGCCAAGAAGCTCAGGGTGTGTTGTTGAATCCCTGAGGAGAAAGCTAATCAGGTTAAAGTTGACAGA  
 GACTCAAAGAAGCACAAAAAGAAAACCTCTCCCTGGGCTGGGCACCTTGAGAGGCTTTGCCCCATC  
 CTCTGCAGGCCAGGAAGCAGTTGTTCCAGACTTCTGCAGGAAAGAACGTGATGAGCCAGTCCTCTTTTG  
 TGACTCCAACAAGATGGCGACTGTGTTGACTGCCCCACTGGAATTCTCAGTGAATTACAACCTATAGAT  
 GAGTTTCTCTTCCAGAAAACAGGGAGAAAATTGGCTTAGAGTCCCATTGCTATCAAGGGGAGACAGTG  
 GTCACCAGCGAGAGGGAACCAAGTGACTGCGTAGGCTGTGGTTCTCCCGGCTCACATTAGCAGAGTG  
 GTTCTCTAACTCCTGAGTCCAGGGCCCTGGCGCTAAAATACCTTCTCACTCCAGTGCATTTCTCCAA  
 GCAGGGTTCTCTTCCAGGAACCTCGACAAGCAAGTGAAAAACACCAGAGAGTACAGCGTAGCAGTCTG  
 CAGTTCTGAGCCCGTGGATGTTGGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR207211 protein sequence  
 Red=Cloning site Green=Tags(s)

MTVTLIDANHCPGSVMFLFEGYFGTILYTGDFRYTPSMLKEPALILGKQIHTLYLDNTNCPALVLP  
 SRQ EATQQIVQLIRQFPQHNKIGLYSLGKESLLEQLALEFRTWVVLSPQRLELVQLGLADVFTVEE  
 EAGRI HAVDHEICHSAMLQWNQSHPTIAIFPTSARKVRSPPHSIYVTPYSDHSSYSELRAFVAAL  
 RPCQVPIVH QKPCGEFFQDSLSPRLAMPLIPHSVQYMSSSSRKTNVLWQLERRLKRPR  
 TQGVVFEESPEEKANQVKVDR DSKKHKENLSPWAGHLERLCPHPLQARKQLFPDFCRKER  
 DEPVLFCDSNMATVLTAPLEFSVQLQPID EFLFPETREKIGLESPLLSRSDSGSPARGNQSD  
 CVGCGSPPAHISRAVPLTPESRGLALKYLLTPVHFLQ AGFSSRNFDKQVEKHQRVQRSSPA  
 VLSPVDVG

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

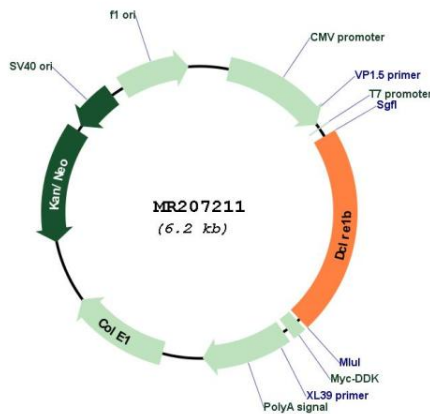
SgfI-MluI



**MW:** 51 kDa

**Gene Summary:** 5'-3' exonuclease that plays a central role in telomere maintenance and protection during S-phase. Participates in the protection of telomeres against non-homologous end-joining (NHEJ)-mediated repair, thereby ensuring that telomeres do not fuse. Plays a key role in telomeric loop (T loop) formation by being recruited by TERF2 at the leading end telomeres and by processing leading-end telomeres immediately after their replication via its exonuclease activity: generates 3' single-stranded overhang at the leading end telomeres avoiding blunt leading-end telomeres that are vulnerable to end-joining reactions and expose the telomere end in a manner that activates the DNA repair pathways. Together with TERF2, required to protect telomeres from replicative damage during replication by controlling the amount of DNA topoisomerase (TOP1, TOP2A and TOP2B) needed for telomere replication during fork passage and prevent aberrant telomere topology. Also involved in response to DNA damage: plays a role in response to DNA interstrand cross-links (ICLs) by facilitating double-strand break formation. In case of spindle stress, involved in prophase checkpoint. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR207211