

Product datasheet for **RN204871**

Dclre1b (NM_001025687) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dclre1b (NM_001025687) Rat Untagged Clone
Tag: Tag Free
Symbol: Dclre1b
Synonyms: MGC114481
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN204871 representing NM_001025687
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAACGGGGTCGTAATCCCCAACCCCATCGCTGTGGATTTTGGAGCCTGCGCCGTGCTGGTACCG
CGCGGCTCTTCTTTATCCCACATGCACTGTGACCACACGGTGGCCTGTCTAGCACTTGGGCACGGCC
CCTCTACTGCTCTCCCATCACTGCCACCTCTTGCATCGTCGCCTGCAGGTGTCTAAGCAGTGGATCCGA
GCTCTGGAGATTGGTGGAGCCATGTATTACTTCTAGATGAAATTGGACAAGAAACCATGACTGTAACCC
TCATAGATGCCAATCACTGTCCTGGTTCTGTCATGTTTCTTTGAAGGATACTTTGGAACAATTCTCTA
CACAGGTATTTTCGATATACACCGTCCATGCTGAAGGAGCCTGCTCTGACACTAGGGAACAGATTCAAT
ACTTTATCTAGACAACACCAATTGCAACCCAGCCCTTGTCTTCTTCCCGACAGGAAGCTACTCAAC
AGATTATCCAGCTAATCCGACAGTTCCCCAACACAACATAAAGATTGGCCTCTATAGTCTAGGAAAAGA
ATCACTGCTGGAGCAGCTAGCCCTTGAGTTTCAGACCTGGGTGGTATTGAGTCTCAACGCCTGGAGTTG
GTACAGCTGCTGGCCTGGCAGACGTGTTACAGTGGAGGAAGAAGCTGGGCGAATCCACGCTGTGGACC
ACATGGAATCTGCCATTCGGCCATGCTTCAGTGGAAACCAGACCCACCCACCATTGCTATTTTCCCCAC
AAGCCGAAAATACGAAGCCCTACCCAGCATCTACAGCATCCCTTACTCTGACCATTCACTACTCT
GAGCTTCGAGCATTTGTTGCAGCTCTGAGGCCTTGCCAGGTGGTCCCATAGTCCGTGAACAGCCTTGTG
GAGAGTTTTTTTCAGGATAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001025687
Insert Size: 930 bp



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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:	NM_001025687.1 , NP_001020858.1
RefSeq Size:	4013 bp
RefSeq ORF:	930 bp
Locus ID:	310745
UniProt ID:	Q4KLY6
Cytogenetics:	2q34
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 (By similarity).[UniProtKB/Swiss-Prot Function]