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Product datasheet for MC203081

Terf2 (NM_001083118) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Terf2 (NM_001083118) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Terf2
Synonyms:	TRF2
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>BC046284
GGCGGCTCGGAACCCCGTCGGTATCATGGCTGCGGGAGCCGGGACAGCGGGCCCTGCTTCCGGCCCGGGC
GTTGTGCGTGACCCGATGGCGTCACAGCCAAGGAAACGGCCCAGTCGGGAGGGCGGGGAGGGCGGGGAGG
GCGAGCGGCGGTCGAACACGATGGCGGGAGGAGGCGGGAGCAGCGATAGCAGCGGGCGGGCGGCGAGCCG
ACGGGCATCGCGCAGCGGCGGGCGGGCTCGACGGGGGCGACACGAGCCAGGGTTGGGAGGCGCGGCCGAG
CGGGGCGCGGGGGAAGCTCGCCTGGAGGAGGCGGTCAACCGCTGGGTGCTCAAGTTCTATTTCCACGAGG
CGCTGCGGGCCTTTCGGAGTAGCCGGTACCGGGACTTCAGGCAGATCCGGGACATCATGCAGGCGTTGCT
TGTCAGGCCCTTGGGGAAGGAGCATACGGTGTCCCGGTTGCTGCGGGTTATGCAGTGTCTGTCGCGCATT
GAAGAAGGAGAAAATTTAGACTGTTCCTTTGATATGGAGGCTGAGCTCACACCCTTGGAATCAGCTATCA
ATGTGCTGGAGATGATTAAAACAGAGTTCACACTGACAGACTCTATGGTTGAATCCAGCAGAAAACTGGT
CAAGGAGGCTGCTGTCATTATTTGTATCAAAAACAAAGAATTTGAAAAGGCTTCAAAGATTTTGAAAAAA
TACATGTCTAAGGACCCCACAACTCAGAAGCTGAGAACTGATCTCCTGAACATTATCCGGGAAAAGAACT
TGGCCCACCCTGTTATCCAGAACTTTTCCTATGAGGTCTTCCAGCAGAAGATGCTGCGTTTCCTAGAGAG
CCACCTGGATGACACGGAGCCCTACCTCCTCACGATGGCTAAAAAAGCTTTGAAATCTGAATCAGCTGCT
TCAAGTACAATGAGGGAAGAAAAGCACCCAGAGCCAGTGGAAAAACCACTTAGAGAGCCTCCAAGCAGAC
AGCCTCAGAACCCTCCAGCCACCATCGGGATCAGGACTCTGAAGGCAGCTTTCAAAGCTCTGTCTACTGC
ACAAGACTCAGAGGCCGCTTTTGCAAAACTGGACCAGAAAGATCTGGTACTTGCTAATCTGGCATCCCCA
TCATCACCAGCCCACAAACACAAGAGACCCAGGAAAGATGAACATGAAAGCGCAGCTCCTGCTGAGGGTG
AGGGAGGCTCAGACCGGCAGCCCAGGAACAGTCCCATGACAATAAGCAGATTGCTGTTGGAGGAGGACAG
CCAGAGTACTGAGCCCAGCCCAGGCCTCAACTCCTCCCACGAGGCCATGTCAGCATCCAAGCCCAGAGCT
CTCAACCAACCCCACCCGGGGGAGAAGAAGCCCAAGTATGAAGACCTTCTTTGTAGGAGTTTGGGGGCTG
GTTGGCGGGCCTGGTTGGGCCTGGTTTTACTTCCATGAATGACGTAATCTTCAGCTAAGCTACTCTCCAC
CAAGGCTTGCTCAGACTGCTAGGATGAGACTGGAGCAGGGAGTGACAATGTGACAGTCCCTGCCAGCTCC
TGAGGCTGCTGTAGGCTGCAGGGCACTGCCCTAGGGCATGAGTAAGCAGGAAAGGGTTCTGAGCCGTCTG
CCTGTTGGTCTGAGTGCCTCAAGGACGAAATATCAGCCTTACTTGTACAATTTGTCTGAAGTTGGGCCTC
ATTATACTTGATATTTATGAAAGACCAGTGAGCACTTAGCTTTATACCTTTGAGCATTTGAGACCCAGCA
AATTCAGCAAAGATCTCCCAATCTTCCATGTTCTGCTAGCTGCTGTAGGACAGTGGTTAGAATATGTTAA
TTAAGTTTATCACCATCATGACTCCCAGCCTGGGTTTTGAGTCCCGCTGCCCCTTTGTACCCTGTGTGGAC
CCCACTCCAGGCACTGGTTTGCTTGTGCTCTCAGAACATACTGTTTGTTTCTCCCGCTGTGCACCTCCTC
TCAGTCCCCCATGGCCTGCCACCCCCCTCCCCCATTTGGTGCTTCCAAGGGGAGAGGAACCTAGGTGTGT
GCACTTCTATACTAGCTTACGGAGTCTGCAGTGCTCGCTCCGTGCCATGGTGGTAGCCCTATCGTATAGA
TGAGGAAGGCACAGAAAAGTTACTAGCTCACCTGATGTCGCTCAGCTGAAAGGAGCAAGCATGGGTGTCC
GGGGTCTTAAGCTGCATGATGCTGGACAGCAGCTGAGGCCACCTATACAGTTCCTCTCCTGAAACTCCCC
CTTCCCCATGAACCCTTGTATAGCTGTCCCTGCCGTAAGGCCTTTGCCACACTGATCTCCCAAGGCCATT
GCCGTCTCTACACACTGTTGTGTATCATGATTGTTTGGAGACCCTGTCCTGACCTGCACTGTGAAAGGCC
TTGGCATGTGATAACATGGCTTCCTTGCATTGGGTGTACTCTTACATTCAGAAACAAGTCACTGGCACAA
GTTCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAA
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Restriction Sites: RsrII-NotI

ACCN: NM_001083118

Insert Size: 1413 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:	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:	BC046284, AAH46284
RefSeq Size:	2539 bp
RefSeq ORF:	1413 bp
Locus ID:	21750
UniProt ID:	O35144
Cytogenetics:	8 53.59 cM
Gene Summary:	Binds the telomeric double-stranded 5'-TTAGGG-3' repeat and plays a central role in telomere maintenance and protection against end-to-end fusion of chromosomes. In addition to its telomeric DNA-binding role, required to recruit a number of factors and enzymes required for telomere protection, including the shelterin complex, TERF2IP/RAP1 and DCLRE1B/Apollo. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded 5'-TTAGGG-3' repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Together with DCLRE1B/Apollo, plays a key role in telomeric loop (T loop) formation by generating 3' single-stranded overhang at the leading end telomeres: T loops have been proposed to protect chromosome ends from degradation and repair. Required both to recruit DCLRE1B/Apollo to telomeres and activate the exonuclease activity of DCLRE1B/Apollo. Preferentially binds to positive supercoiled DNA. Together with DCLRE1B/Apollo, required to control the amount of DNA topoisomerase (TOP1, TOP2A and TOP2B) needed for telomere replication during fork passage and prevent aberrant telomere topology. Recruits TERF2IP/RAP1 to telomeres, thereby participating in to repressing homology-directed repair (HDR), which can affect telomere length. [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) lacks several exons and its 3' terminal exon extends past a splice site that is used in variant 1. This results in a novel 3' coding region and 3' UTR, compared to variant 1. It encodes isoform 2 which is shorter and has a distinct C-terminus, compared to isoform 1.