

Product datasheet for **MC223666**

Rtel1 (NM_001166668) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rtel1 (NM_001166668) Mouse Untagged Clone
Tag: Tag Free
Symbol: Rtel1
Synonyms: AI451565; AW540478; Rtel
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223666 representing NM_001166668
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGCCAGGGTAGTCCTGAATGGTGTGACAGTGGATTTCTTTCCAGCCCTACCCATGCCAACAGGAAT
ATATGACCAAGGTGCTAGAATGTCTCCAGAAGAAAGTGAATGGCATCCTGGAGAGCCCCACAGGCACTGG
GAAGACGCTGTGCCTCCTCTGTTCCACCTTGGCCTGGCAACAACATCTCCGAGATGCAGTTTCTTCCCTA
AAGATTGCTGAGAGAGTTCAAGGGAACTTTGCCAGTCGGACCTTGTCATCCTGGGGGAGTGTGCTGTG
CCGCCAGCGGAGACTCAATAGAGTGTACACAGATATCCCAAAGATCATCTATGCTTCTAGAACGCACTC
CCAGCTAACTCAGGTCATCCGTGAGCTTCGGAATACCGCCTACCGGCCAAAGGTATGTGTGCTGGGCTCC
CGGGAGCAGCTGTGATTATCCTGAAGTGAAGAAGCAGGAGAGTAATCATGCAGATCAGTTTGTGCC
GCAAGAAGGTAGCAAGTCGCTCCTGTCAATTTCTACAACAATGTGGAAGCGAAATTCCTGGAGCAAGATTT
GGCTACCCCATCCTGGATATTGAGGACCTTGCAAGAATGGAAGCAACAAAAATGTGCCATACTAC
CTTTCTCGAAACATGAAACAGCAAGCGGACATCATCTTTATGCCATACAATTACCTGTTGGATGCTAAGA
GTCGTAAGGCGCACAGCATTGACCTGAAGGGAACAGTTGTGATCTTTGATGAAGCTCACAAATGTGGAGAA
GATATGTGAGGAGTCAGCCTCCTTTGACTTGACTCCCCGTGATGTGGCTTCAGGACTGGAGATTATCAAC
CAGGTTTTGGAGGAACAAGCCGGGTGACTCAGCAGGGTGAACCTCAACAGGAGTTCATTGTAGACACGT
CCAGCTCAGGACTCAACATGGAGCTGGAAGACATCGAAAGCTAAAGATGATCCTGCTTCGCTGGAGGA
GGCTATTGATGCCGTTACAGTGCCTGGGGATGACAGAGGCGTCACCAAACCTGGAAGCTATATCTTCGAG
CTGTTTGTGAAGCTCAAATAACATTTCAAACAAAGGCTGCATTTTGAATCACTGGACCAGATAATCC
AGCACCTGGCAGGCCGACTGGTGTGTTACCAACACGGCTGGGTTGCAGAAGCTTATGGACATTATCCA
GATTGTGTTAGCGTGGACCCTCCGAAGGCAGCCCTGGTCTCTGGTGGGGCTGGGTATCTCACATTCC
TATAAGGTACACATACACCTGAAACCAGCCACCGGAGAGCAGCTAAGCGGTGATGCCTGGAGTACCA
CTGCATCCAGGAAACAAGGGAAGGTGCTGAGCTATTGGTCTTCACTCCAGCCAGAGTATGCGGGAAC
GGTCTGCCAAGGAGTTCGTACCCTTATCCTCACCAGCGGTACCCTGGCTCCACTGTCTTCTTTGCTCTG
GAGATGCAGATTCATTCCAGTCTGTCTGGAGAATCCACACATCATTGACAAGAACCAGCTCTGGGTGG



[View online »](#)

```

GGATTGTCCCCAGAGGCCCTGATGGTGTTCAGCTAAGCTCTGCCTATGACAAAAGGTTTTCTGAAGAGTG
TTTATCTTCCCTGGGGAAGGCTCTGAGCAACATTGCTCGCGTGGTGCCCATGGGCTTCTGGTCTTCTTC
CCTTCTACCTGTCTATGGAGAAAAGCCTGGAGTTCTGGCAGGTACAAGGATTGGCCAGGAAGGTAGAGG
CACTAAAGCCTCTGTTCTGTGAACCCAGGAACAAAGGCAGCTTCTCAGAGGTCATTGATGCCTACTACCA
ACAAGTTGCCCTCCCCTGCGTCTAATGGGGCCACCTTCTTAGCAGTGTGTGGGGAAAAGGCCAGCGAAGGG
CTGGACTTCTCAGACATGAATGGTCTGGTGTGATTGTACGGCCCTCCCATATCCTCCACGCATGGATC
CCCGTGTGTCTCAAGATGCAGTTCTTGGATGAGATGAGAGGCCGGAGTGGGGTTGGAGGCCAGTGCCT
CTCTGGGCAGGAATGGTACCAGCAGCAAGCATCCAGGGCTGTGAACCAGGCTATTGGGAGGTTATTCTGA
CACCGCCATGACTATGGGGCCATCTTCTGTGTGACCACAGGTTTCGCTATGCTGATGCCAGGGCCACGC
TGCCCTCTGGGTGCGCCCTACCTTAAGGTGTATGACAACTTTGGCCATGTCATCCGAGATGTGGCCCA
GTTCTTCCGTGTGCTCAGAAAATGATGCCTTTGCCAGTTCCTCAGGCTGTGACCTCAAGTGTGAGTGAG
GGAGAAATTGCTCTCAAGGATGTACATTGTCCAGCTACTCCCTCTTACCAGGAAAGCCATGAGTTTGG
ATGTGCATGTGCCAGCCTGAGGCAGAAGCCCATAGGATTACCAGCTGCTGGAGACTCTGAGAGCAGCCT
GTGTGGGAGTATGAGCAGCAGACATTTCTGCCAGCAGAGACCTATGGGACTGCTAGTCGCCTTAGAA
TACAACGAGCAGAAGGCTGGGGCATCTGAGGAGCAGGCACTGGGCTCCTCCACCCATCTCTCCGTTGCG
AGAAGAGGCTGTCTACTGAGCAAAAAGGAGGAAGGAAGAAAGTCAAGGCTGGTCAACCATCCGAGGAACC
AATGGCTGGCACACAGGCAGGCAGAGCCAAAGATGTTTCATGGTGGCTGTGAAGCAAGCACTGAGCCAAAGT
AACTTTGACACCTTTACCAGGCCCTGCAGCACTATAAGATTTCTGATGACTTTGAAGCCCTAGTGGCCT
CTCTCACCTGTCTTTTGTGAAGACCCCAAGAAACACACCCTGCTTAAAGGTTTCTACCAGTTTGTTCG
ACCCACCCACAAGCAGCAGTTTGGAGACATCTGCTTCCAGCTAACAGGCCAACGATGTGGTACCAGCCA
GGAAAGAGAGAGCTGGAGTCTAACTGACCTTGTCTGAAGGTGTAGACAGGCAGCTGGATCCTGGACAGC
ACCTGAACCAGGGCAGCCTCACCTGTCTGCCATCCAACCTCCAAGGATTTGGCATGTTTGTGCGTCCG
GCATCATAAGCCTCAGTTCTACAGACCTGTGCAGACCTAATGGGCTGCCTACCACAGGCAAGGACTTG
GAGCTCGAAGGTTCCAGAGATGAGAGCCCAACTGTGCCTCTGAGCTTACCCATGAGGACCTGAAACCAG
GGCCCTCGATGTCCAAGAACCTGAGAAGACCCAGAGTAAGATCTCATCCTTCTTTAGACAGAGGCCAGA
TGAGAGTGTGAGGTCTGATGATACCACCCCAAAGCCCATGCAACTTCTCCTAGACTACCCCATGAGCTT
ATGAAGCCTCATCGGAGTAAGCAATAG
    
```

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001166668
- Insert Size:** 3387 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: [NM_001166668.1](#), [NP_001160140.1](#)

RefSeq Size: 4208 bp

RefSeq ORF: 3387 bp

Locus ID: 269400

UniProt ID: [Q0VGM9](#)

Cytogenetics: 2 H4

Gene Summary: ATP-dependent DNA helicase implicated in telomere-length regulation, DNA repair and the maintenance of genomic stability. Acts as an anti-recombinase to counteract toxic recombination and limit crossover during meiosis. Regulates meiotic recombination and crossover homeostasis by physically dissociating strand invasion events and thereby promotes noncrossover repair by meiotic synthesis dependent strand annealing (SDSA) as well as disassembly of D loop recombination intermediates. Also disassembles T loops and prevents telomere fragility by counteracting telomeric G4-DNA structures, which together ensure the dynamics and stability of the telomere.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (5) lacks an in-frame exon in the CDS, as compared to variant 1. The resulting isoform (5) lacks an internal segment, as compared to isoform 1.