

Product datasheet for MC223137

Rtel1 (NM_001166665) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rtel1 (NM_001166665) 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: >MC223137 representing NM_001166665
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGCCAGGGTAGTCCTGAATGGTGTGACAGTGGATTTCTTTCCAGCCCTACCCATGCCAACAGGAAT
ATATGACCAAGGTGCTAGAATGTCTCCAGAAGAAAGTGAATGGCATCCTGGAGAGCCCCACAGGCACTGG
GAAGACGCTGTGCCTCCTCTGTTCCACCTTGGCCTGGCAACAACATCTCCGAGATGCAGTTTCTTCCCTA
AAGATTGCTGAGAGAGTTCAAGGGAACTTTGCCAGTCGGACCTTGTCATCCTGGGGGAGTGTGCTG
CCGCCAGCGGAGACTCAATAGAGTGTACACAGATATCCCAAAGATCATCTATGCTTCTAGAACGCACTC
CCAGCTAACTCAGGTCATCCGTGAGCTTCGGAATACCGCCTACCGGCCAAAGGTATGTGTGCTGGGCTCC
CGGGAGCAGCTGTGTATTCATCCTGAAGTGAAGAAGCAGGAGAGTAATCATGCAGATCAGTTTGTGCC
GCAAGAAGGTAGCAAGTCGCTCCTGTCAATTTCTACAACAATGTGGAAGCGAAATTCCTGGAGCAAGATTT
GGCTACCCCATCCTGGATATTGAGGACCTTGCAAGAATGGAAGCAACAAAAATGTGCCATACTAC
CTTTCTCGAAACATGAAACAGCAAGCGGACATCATCTTTATGCCATACAATTACCTGTTGGATGCTAAGA
GTCGTAAGGCGCACAGCATTGACCTGAAGGGAACAGTTGTGATCTTTGATGAAGCTCACAAATGTGGAGAA
GATATGTGAGGAGTCAGCCTCCTTTGACTTGACTCCCCGTGATGTGGCTTCAGGACTGGAGATTATCAAC
CAGGTTTTGGAGGAACAAGCCGGGTGACTCAGCAGGGTGAACCTCAACAGGAGTTCATTGTAGACACGT
CCAGCTCAGGACTCAACATGGAGCTGGAAGACATCGCAAAGCTAAAGATGATCCTGCTTCGCTGGAGGA
GGCTATTGATGCCGTTACAGTGCCTGGGGATGACAGAGGCGTCACCAAACCTGGAAGCTATATCTTCGAG
CTGTTTGTGAAGCTCAAATAACATTTCAAACAAAGGCTGCATTTTGAATCACTGGACCAGATAATCC
AGCACCTGGCAGGCCGACTGGTGTGTTACCAACACGGCTGGGTGCAGAAGCTTATGGACATTATCCA
GATTGTGTTACAGCTGGACCCTCCGGAAGGCAGCCCTGGTCTCTGGTGGGGCTGGGTATCTCACATTCC
TATAAGGTACACATACACCTGAAACCAGCCACCGGAGAGCAGCTAAGCGGTGATGCCTGGAGTACCA
CTGCATCCAGGAAACAAGGGAAGGTGCTGAGCTATTGGTCTTCACTCCAGCCAGAGTATGCGGGAAC
GGTCTGCCAAGGAGTTCGTACCCTTATCCTCACCAGCGGTACCCTGGCTCCACTGTCTTCTTTGCTCTG
GAGATGCAGATTCATTCCAGTCTGTCTGGAGAATCCACACATCATTGACAAGAACCAGCTCTGGGTGG



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GGATTGTCCCAGAGGCCCTGATGGTGTTCAGCTAAGCTCTGCCTATGACAAAAGGTTTTCTGAAGAGTG
TTTATCTTCCCTGGGGAAGGCTCTGAGCAACATTGCTCGCGTGGTGCCCATGGGCTTCTGGTCTTCTTC
CCTTCTACCTGTCTATGGAGAAAAGCCTGGAGTTCTGGCAGGTACAAGGATTGGCCAGGAAGGTAGAGG
CACTAAAGCCTCTGTTCTGGAACCCAGGAACAAAGGCAGCTTCTCAGAGGTCATTGATGCCTACTACCA
ACAAGTTGCCCTCCCCTGCGTCTAATGGGGCCACCTTCTTAGCAGTGTGTGGGGAAAGGCCAGCGAAGGG
CTGGACTTCTCAGACATGAATGGTGTGGTGTGATTGTACGGGCCTCCCATATCCTCCACGCATGGATC
CCCGTGTGTCTCAAGATGCAGTTCTTGGATGAGATGAGAGGCCGGAGTGGGGTTGGAGGCCAGTGCCT
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GTTCTTCCGTGTGCTCAGAAAATGATGCTTTGCCAGTTCCTCAGGCTGTGACCTCAAGTGTGAGTGAG
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CTCTCACCTGTCTTTTGTGAAGACCCCAAGAAACACACCCTGCTTAAAGGTTTCTACCAGTTTGTTCG
ACCCACCCACAAGCAGCAGTTTGGAGACATCTGCTTCCAGCTAACAGGCCAACGATGTGGTACCAGCCA
GGAAAGAGAGAGCTGGAGTCTAAACTGACCTTGTCTGAAGGTGTAGACAGGCAGCTGGATCCTGGACAGC
ACCTGAACCAGGGGCAGCCTCACCTGTCTGCCCCATCCAACCTCCAAGGACACACCAGCCATTGTACAAA
AGTGGGATGTGCAGTAGAAAAACCTGGCCAGCCTGTGTGAGTGACTACCTATCTGATGTCCACAAGCC
CTGGGATCTGCAAGCTGCAACCAGCTTACGGCAGCTCTGAGGGCATACAACAGGATGATGACCTGGACA
AGTGGTGGCTGTGGTGGCAGCACTGACCACTGCAAAAACCTGAACAATTACCCTTGTACAGAGATTTGG
CATGTTTTGTGCGTCGGCATCATAAGCCTCAGTTCTACAGACCTGTGCAGACCTAATGGGCTGCCTACC
ACAGGCAAGGACTTGGAGCTCGAAGGTCCAGAGATGAGAGCCCAACTGTGCCTCCTGAGCTTACCCATG
AGGACCTGAAACCAGGGCCCTCGATGTCCAAGAAACCTGAGAAGACCCAGAGTAAGATCTCATCTTCTT
TAGACAGAGGCCAGATGAGAGTGTGAGGCTGATGATACCACCCCAAAGCCCATGCAACTTCTCTCTAGA
CTACCCCATGAGCTTATGAAGCCTCATCGGAGTAAGCAATAG
    
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
    
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Restriction Sites:

Sgfl-Mlul

ACCN:

NM_001166665

Insert Size:

3612 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_001166665.1](#), [NP_001160137.1](#)

RefSeq Size: 4433 bp

RefSeq ORF: 3612 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 (2) lacks an in-frame segment in the CDS, as compared to variant 1. The resulting isoform (2) lacks an internal segment, as compared to isoform 1.