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Product datasheet for RC221988

RTEL1 (NM_032957) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RTEL1 (NM_032957) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RTEL1
Synonyms:	C20orf41; DKCA4; DKCB5; NHL; PFBMFT3; RTEL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC221988 representing NM_032957
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCAAGATAGTCCTGAATGGTGTGACCGTAGACTTCCCTTTCCAGCCCTACAAATGCCAACAGGAGT
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GCAACTCACACAGGTCATCAACGAGCTTCGGAACACCTCCTACCGGCCTAAGGTGTGTGTGCTGGGCTCC
CGGGAGCAGCTGTGCATCCATCCTGAGGTGAAGAAACAAGAGAGTAACCATCTACAGATCCACTTGTGCC
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GAGATGCAGATCCCTTTCCCAGTCTGCCTGGAGAACCCACACATCATCGACAAGCACCAGATCTGGGTGG
GGGTCGTCCCCAGAGGCCCCGATGGAGCCCAGTTGAGCTCCGCGTTTGACAGACGGTTTTCCGAGGAGTG
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Protein Sequence:

>RC221988 representing NM_032957
Red=Cloning site Green=Tags(s)

MPKIVLNGVTVDFPFQPYKCQQEYMTKVLECLQQKVNGILESPTGTGKTLCLLCTTLAWREHLRDGISAR
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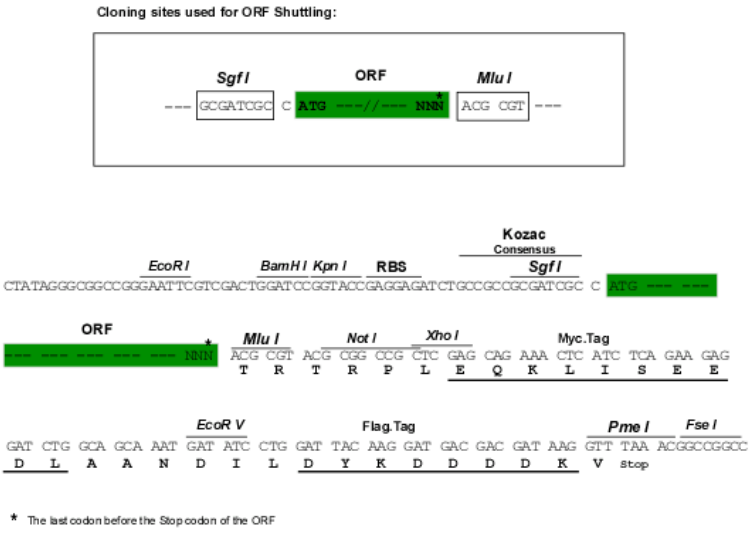
DFQRCQACWQRHLQASRMCPACHTASRKQSVMQVFWPEPQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8039_d07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032957

ORF Size: 3900 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_032957.3, NP_116575.2

RefSeq Size: 4651 bp

RefSeq ORF: 3732 bp

Locus ID: 51750

UniProt ID: Q9NZ71

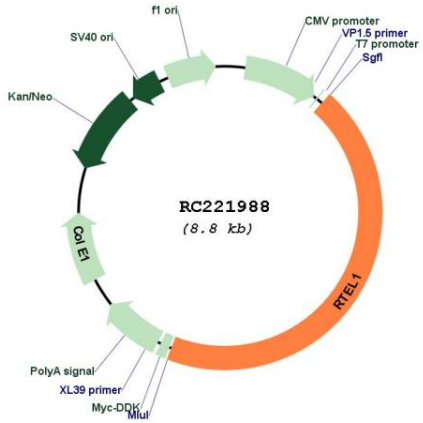
Cytogenetics: 20q13.33

Protein Families: Druggable Genome

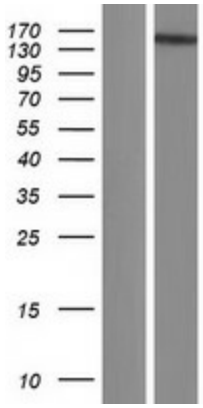
MW: 142.8 kDa

Gene Summary: This gene encodes a DNA helicase which functions in the stability, protection and elongation of telomeres and interacts with proteins in the shelterin complex known to protect telomeres during DNA replication. Mutations in this gene have been associated with dyskeratosis congenita and Hoyerall-Hreidarsson syndrome. Read-through transcription of this gene into the neighboring downstream gene, which encodes tumor necrosis factor receptor superfamily, member 6b, generates a non-coding transcript. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2013]

Product images:



Circular map for RC221988



Western blot validation of overexpression lysate (Cat# [LY409841]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221988 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).