

Product datasheet for **KN214507LP**

RTEL1 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	RTEL1
Locus ID:	51750
Components:	KN214507G1 , RTEL1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) KN214507G2 , RTEL1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) KN214507LPD , donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.

Homologous arm and Luciferase-Puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **Luciferase-Puro in green**;
Right arm in violet

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CTCCAGCCAG CCAGGAGGGC AGAGGGCTGG AGAGGCAGGG CCGGAGGTTT AGACCCTCCG CTCTGACGTT
GGCCTGTGTG AGGCCGGGAG GGGTGCCGCT TGCCCTCTCA GCCCTCACGC TCTTGTGGAA GTCGCGGAAT
TACTGCAGGC GGAACCTGCA GCACTGTGGG CGTCTTTTCC AGAGAAGGAC GGAGTTGTGG GCGGGGAGGA
TAAGGCAAGG CCCAGCCACT TCGCATCTTC GCCCCGCCAG CTCCTCGAGA TGGGATATAC CAGGGTTGCT
CTCCAACCCT CTCCGCAGGA GGGACTGATG GAAACGCTG GGAAAGTAGC CCGGTACCCA CAAAGGCTGT
CTACAACAG AGTCTTACTG TCTTTCCAG GTCTGTGCCA TAGGGATTCT CGAAGAGAAC AGCGTTGTGT
CCCAGTGAC ATGCTCGCAT CGCTTACCAG GAGTGCCCGA GACCCTAAGA TGTTCCGAGT GGTTTTTTTCG
CACAGACCCG AATAGCCTGC CCCTCAGCCA CGCTCTGTGC CTTCTGAGA ACAGGCTGAT AGGTAGAGCA
CAGGCCCCGA GAAAGGACT GCGGGTGGT GGAGCTTCAG CCAGGACGGG GTGTGCTTCC CTCTCCCGGC
CCATTCCAGC CAGGCCCTC CGGGCCAGAG GCAGCGTCTG TCATAAAAAG GGCTGGTGTT CCAGGTGGGG
TCAGAGAGAG GATTGACAAG TAAAAACGAT CGTCCTTTGA AGGGGGCCGG CCCCTCCACA CCTGTGGGTA
TTTCTCATCA GCGGGGACGA GAGACTGAGA AAATGAATAA GACACAGAGA CAAAGTATAG AGAGAAAAGT
GGGCCAGGG GACCGGCGCT CAGCATACAG AGGACCTGCA CCGGCACCAG TCTCTGAGTT TCCTCAGTAT
TCATTAATTA CTATTTTAC TATCTCAGCA AGAGGAATGC GGCAGGACAG CAAGGTGATA GTGGGGAGAA
GGTCAGCAAG AAAACGTGAG CAAAGGAATC TGGGTACAAA ATAAGTTCAA GGAAGGTAC TATGCCTGGA
TGTGCACGTA GGCTAGTTTT ATGCTTTTCT CCACCAAAAC ATCTCGGTGG

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GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.



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RefSeq: [NM_001283009](#), [NM_001283010](#), [NM_016434](#), [NM_032957](#)

UniProt ID: [Q9NZ71](#)

Synonyms: C20orf41; DKCA4; DKCB5; NHL; RTEL

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:

