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Product datasheet for KN217436LP

Telomerase reverse transcriptase (TERT) 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:	Telomerase reverse transcriptase
Locus ID:	7015
Components:	**KN217436G1**, Telomerase reverse transcriptase gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGCCACGTTCGTGCGGCGCC **KN217436G2**, Telomerase reverse transcriptase gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: ACCAGCGCGCGGAAAGCCGC **KN217436LPD**, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette. **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.
RefSeq:	NM_001193376, NM_003219, NM_198253, NM_198254, NM_198255, NR_149162, NR_149163
UniProt ID:	O14746
Synonyms:	CMM9; DKCA2; DKCB4; EST2; hEST2; hTRT; PFBMFT1; TCS1; TP2; TRT

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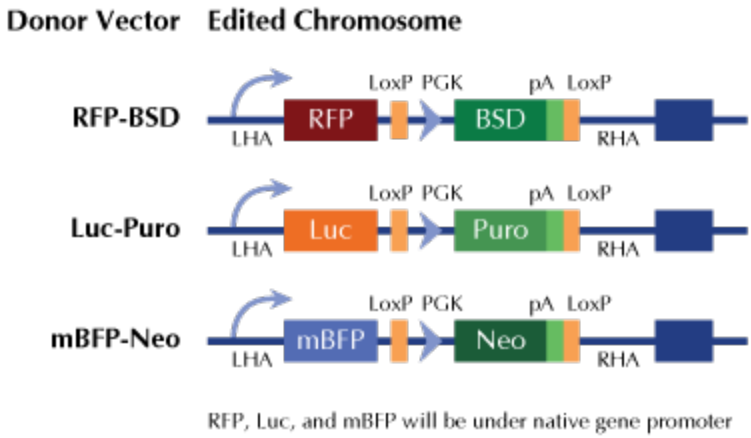
Summary: Telomerase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The enzyme consists of a protein component with reverse transcriptase activity, encoded by this gene, and an RNA component which serves as a template for the telomere repeat. Telomerase expression plays a role in cellular senescence, as it is normally repressed in postnatal somatic cells resulting in progressive shortening of telomeres. Deregulation of telomerase expression in somatic cells may be involved in oncogenesis. Studies in mouse suggest that telomerase also participates in chromosomal repair, since de novo synthesis of telomere repeats may occur at double-stranded breaks. Alternatively spliced variants encoding different isoforms of telomerase reverse transcriptase have been identified; the full-length sequence of some variants has not been determined. Alternative splicing at this locus is thought to be one mechanism of regulation of telomerase activity. [provided by RefSeq, Jul 2008]

Product images:



RFP, Luc, and mBFP will be under native gene promoter