

Product datasheet for **KN200485RB**

CPT1A Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control
Donor DNA:	RFP-BSD
Symbol:	CPT1A
Locus ID:	1374
Components:	KN200485G1 , CPT1A gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) KN200485G2 , CPT1A gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) KN200485RBD , donor DNA containing left and right homologous arms and RFP-BSD functional cassette.

Homologous arm and RFP-BSD sequences:

pUC vector backbone in gray; Left arm sequence in blue; RFP-BSD in green; Right arm in violet

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TTTAATTGGA GTTGCAAC ATACACAAGA GTGAAGAGGA CTGATTAAG ATCCCCACCA TTCCTTCCT
TGTTCAACA ATTTGCCAA TTTGTTTGA TATAATCCTT TTTTTTTTTT GGCTGGAGTA TTTTACAGCA
AATTCTCGAC ATGGGGTGAG GTCTCCCATG AAATCTTCAG GGTTAAGCAG CCCTTCTGAC ACAGGGGCGG
CAAGAGGAGC AGTTTTGGAA CCGGGGTCTC GGGGCATTCT AGACAGTAGC AGGCTGGGGA CAGGACGTCA
TGGTGGCTCA GTGACGTCCT TCACCAGCTA AACTAGTGCC TGGGCTGATT ATCATGGCCC GGGGCGTCA
CTCTGGGGA AGCTTTCAGG GTGGGTTTTG GCTCGGAAGT AGTGAAGGG AGGAACTGG AACTACTGCA
GGCTGTAAC TCTGGGAGA GTCCCAGCTA GTGGGTGTG GTTTCAGT GCACGCACGC TGTCCACACC
CTCTTCTCAC TGCCTGCTGT CCCAGCAGCC CTGCTGCCAG GGGCCATGAA GCGTCATTGC CCTGTGGGTT
GTGGGAGGAC ACCGCTCAGC GCCCGGTGT CTGTCTTAG TGACAACGAT GTACGCCAAG ATCGACCCCT
CGTTAGGAAT AATTGCAAAA ATCAATCGGA CTCTGGAAC GCGTAAGTA ATCCTGTGAA ATCTCCAATT
GTCTGGGAAG TTACCGATTT TATTGCTGTT TTTATGTCTC TTCAAATGTG ATGATTGTCA CTGTTCTGGA
TTCCATATGA AGCTCCTGAT GCTGTTCTCA CGTCAGCTTT CTTCTGTCT CCTGGGTGCT GTTAAGGTCC
CCCTAGGAGT TTGCGGTCC CTGCGGCCT TCCTCTGTAG ACCAGGTGA GAAGAGTGGT AGTGGCCCTG
GGGACCCCT TGAAGGTGT CAGGGCCCGA GGGTTTGGTC AATAATGACA GTGCCCTTAG CCTGGCCAAT
AGGGCTCTGA AATGGAATTT CTGCTCAAAG GGCTGATTCC CCATGTAGTC ATTTCTTTGC ACTTGGAGTC
TGTTCAATCC AGAGTTCTGT GACCCTTGAA CTGACTGCTG TGGGGTCTC TGCAGGGACC TCACCCACTT
AACTCTGTCA GAATGGTTTA GAAATCTCA GGGACCCCC CGTCCCTCCT ACCTCTAGGG TTTTGGATTT
TCCTGGGGCT

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GE100003, scramble sequence in pCas-Guide vector



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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_001031847](#), [NM_001876](#)

UniProt ID: [P50416](#)

Synonyms: CPT1; CPT1-L; L-CPT1

Summary: The mitochondrial oxidation of long-chain fatty acids is initiated by the sequential action of carnitine palmitoyltransferase I (which is located in the outer membrane and is detergent-labile) and carnitine palmitoyltransferase II (which is located in the inner membrane and is detergent-stable), together with a carnitine-acylcarnitine translocase. CPT I is the key enzyme in the carnitine-dependent transport across the mitochondrial inner membrane and its deficiency results in a decreased rate of fatty acid beta-oxidation. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:

