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Product datasheet for KN317423RB

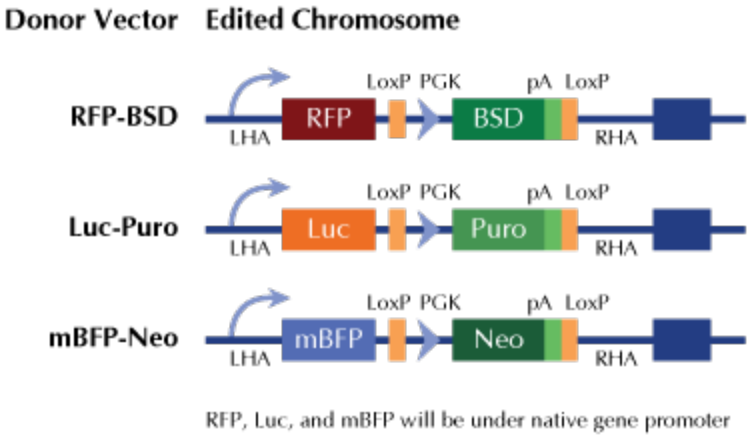
Tet2 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control
Donor DNA:	RFP-BSD
Symbol:	Tet2
Locus ID:	214133
Components:	**KN317423G1**, Tet2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) **KN317423G2**, Tet2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN317423RBD**, donor DNA containing left and right homologous arms and RFP-BSD 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_001040400, NM_001346736, NM_145989
UniProt ID:	Q4JK59
Synonyms:	Ayu17-449; E130014J05Rik; mKIAA1546
Summary:	Dioxygenase that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC) and plays a key role in active DNA demethylation. Has a preference for 5-hydroxymethylcytosine in CpG motifs. Also mediates subsequent conversion of 5hmC into 5-formylcytosine (5fC), and conversion of 5fC to 5-carboxylcytosine (5caC). Conversion of 5mC into 5hmC, 5fC and 5caC probably constitutes the first step in cytosine demethylation. Methylation at the C5 position of cytosine bases is an epigenetic modification of the mammalian genome which plays an important role in transcriptional regulation. In addition to its role in DNA demethylation, also involved in the recruitment of the O-GlcNAc transferase OGT to CpG-rich transcription start sites of active genes, thereby promoting histone H2B GlcNAcylation by OGT.[UniProtKB/Swiss-Prot Function]

View online »

Product images:



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