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Product datasheet for KN221966

DNMT3B Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control

Donor DNA: GFP-puro

Symbol: DNMT3B

Locus ID: 1789

Components: **KN221966G1**, DNMT3B gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCTCAGGACTTGGTTCCATG
KN221966G2, DNMT3B gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AAGTCCTGAGCCTCCAAGCT
KN221966D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:
pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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ACAGGCATCG TGGTGTCACG CTCGTCGTTT GGTATGGCTT CATTCAGCTC CGGTTCCCAA CGATC

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.

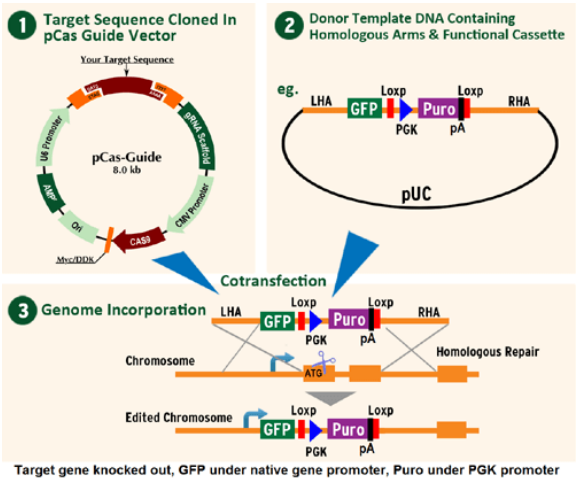
RefSeq: NM_001207055, NM_001207056, NM_006892, NM_175848, NM_175849, NM_175850

UniProt ID: Q9UBC3

Synonyms: ICF; ICF1; M.HsaIIIB

Summary: CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. This gene encodes a DNA methyltransferase which is thought to function in de novo methylation, rather than maintenance methylation. The protein localizes primarily to the nucleus and its expression is developmentally regulated. Mutations in this gene cause the immunodeficiency-centromeric instability-facial anomalies (ICF) syndrome. Eight alternatively spliced transcript variants have been described. The full length sequences of variants 4 and 5 have not been determined. [provided by RefSeq, May 2011]

Product images:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter