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Product datasheet for KN202920

Twist (TWIST1) 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: Twist

Locus ID: 7291

Components: **KN202920G1**, Twist gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCTCTTCCTCGCTGTTGCTC
KN202920G2, Twist gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CGACAGCCTGAGCAACAGCG
KN202920D, 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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TGGGGGATCA TGTAACTCGC CTT

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.

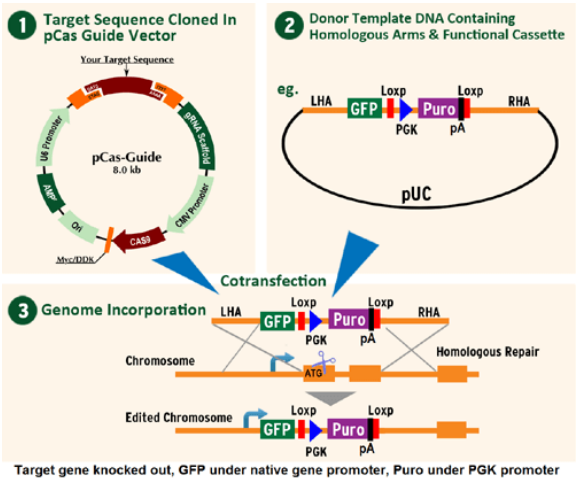
RefSeq: NM_000474, NR_149001

UniProt ID: Q15672

Synonyms: ACS3; bHLHa38; BPES2; BPES3; CRS; CRS1; CSO; SCS; TWIST

Summary: This gene encodes a basic helix-loop-helix (bHLH) transcription factor that plays an important role in embryonic development. The encoded protein forms both homodimers and heterodimers that bind to DNA E box sequences and regulate the transcription of genes involved in cranial suture closure during skull development. This protein may also regulate neural tube closure, limb development and brown fat metabolism. This gene is hypermethylated and overexpressed in multiple human cancers, and the encoded protein promotes tumor cell invasion and metastasis, as well as metastatic recurrence. Mutations in this gene cause Saethre-Chotzen syndrome in human patients, which is characterized by craniosynostosis, ptosis and hypertelorism. [provided by RefSeq, Jul 2020]

Product images:



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