

Product datasheet for KN202416BN

CTCF Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

Donor DNA: mBFP-Neo

CTCF Symbol: Locus ID: 10664

KN202416G1, CTCF gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) Components:

KN202416G2, CTCF gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN202416BND, donor DNA containing left and right homologous arms and mBFP-Neo

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 001191022, NM 006565, NM 001363916

UniProt ID: P49711 Synonyms: MRD21

Summary: This gene is a member of the BORIS + CTCF gene family and encodes a transcriptional

> regulator protein with 11 highly conserved zinc finger (ZF) domains. This nuclear protein is able to use different combinations of the ZF domains to bind different DNA target sequences

and proteins. Depending upon the context of the site, the protein can bind a histone acetyltransferase (HAT)-containing complex and function as a transcriptional activator or bind a histone deacetylase (HDAC)-containing complex and function as a transcriptional repressor. If the protein is bound to a transcriptional insulator element, it can block

communication between enhancers and upstream promoters, thereby regulating imprinted expression. Mutations in this gene have been associated with invasive breast cancers,

prostate cancers, and Wilms' tumors. Alternatively spliced transcript variants encoding

different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]



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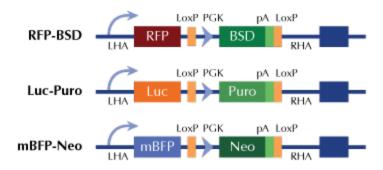
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Product images:

Donor Vector Edited Chromosome



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