

## 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
Symbol:	CTCF
Locus ID:	10664
Components:	<b>KN202416G1</b> , CTCF gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) <b>KN202416G2</b> , CTCF gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) <b>KN202416BND</b> , donor DNA containing left and right homologous arms and mBFP-Neo functional cassette. <b>GE100003</b> , 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:	<a href="#">NM_001191022</a> , <a href="#">NM_006565</a> , <a href="#">NM_001363916</a>
UniProt ID:	<a href="#">P49711</a>
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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## Product images:

