

## Product datasheet for **KN202111LP**

### **CBFB Human Gene Knockout Kit (CRISPR)**

#### **Product data:**

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	CBFB
Locus ID:	865
Components:	<b>KN202111G1</b> , CBFB gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) <b>KN202111G2</b> , CBFB gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) <b>KN202111LPD</b> , donor DNA containing left and right homologous arms and Luciferase-Puro 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_001755</a> , <a href="#">NM_022845</a> , <a href="#">NM_001368710</a> , <a href="#">NM_001368707</a> , <a href="#">NM_001368708</a> , <a href="#">NM_001368709</a>
UniProt ID:	<a href="#">Q13951</a>
Synonyms:	PEBP2B



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**Summary:**

The protein encoded by this gene is the beta subunit of a heterodimeric core-binding transcription factor belonging to the PEBP2/CBF transcription factor family which master-regulates a host of genes specific to hematopoiesis (e.g., RUNX1) and osteogenesis (e.g., RUNX2). The beta subunit is a non-DNA binding regulatory subunit; it allosterically enhances DNA binding by alpha subunit as the complex binds to the core site of various enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers and GM-CSF promoters. Alternative splicing generates two mRNA variants, each encoding a distinct carboxyl terminus. In some cases, a pericentric inversion of chromosome 16 [inv(16)(p13q22)] produces a chimeric transcript consisting of the N terminus of core-binding factor beta in a fusion with the C-terminal portion of the smooth muscle myosin heavy chain 11. This chromosomal rearrangement is associated with acute myeloid leukemia of the M4Eo subtype. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

**Product images:**
