

## Product datasheet for **KN218565RB**

### Interferon beta (IFNB1) Human Gene Knockout Kit (CRISPR)

#### Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control
Donor DNA:	RFP-BSD
Symbol:	Interferon beta
Locus ID:	3456
Components:	<p><b>KN218565G1</b>, Interferon beta gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AATTTGGAGGAGACACTTGT</p> <p><b>KN218565G2</b>, Interferon beta gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCCAAGCAAGTTGTAGCTCA</p> <p><b>KN218565RBD</b>, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.</p>

Homologous arm and RFP-BSD sequences:

pUC vector backbone in gray; Left arm sequence in blue; RFP-BSD in green; Right arm in violet

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AATCTGCACA TGTATTTCTG TATATTTTAA ATCATCCCTA GATTACTTAT AATACCTGAT ACAATATAAA
TGCTAAATAG CTGTAACACT GTATCTTTAA AATTTACATT ATTTTTTGTT GTTGTATTAT TATTTTTATT
GTATTTTTAA AAAATATTTT CCATCTACAG TCAGTAGAAT CCACGGATAC AGAACCTATG GATAGGAAGG
ACCAACTGTA TCTTTTAGTG TTTTGAGGTT CTTGAATTCT CAGGTCGTTT GCTTTCCTTT GCTTTCTCCC
AAGTCTTGTT TTACAATTG CTTTAGTCAT TCACTGAAAC TTTAAAAAAC ATTAGAAAAC CTCACAGTTT
GTAATCTTTT TTCCCTATTA TATATATCAT AAGATAGGAG CTTAAATAAA GAGTTTTAGA AACTACTAAA
ATGTAAATGA CATAGGAAAA CTGAAAGGGA GAAGTGAAG TGGGAAATTC CTCTGAATAG AGAGAGGACC
ATCTCATATA AATAGGCCAT ACCCATGGAG AAAGGACATT CTAAGTCAA CCTTTCGAAG CCTTTGCTCT
GGCACAACAG GTAGTAGGCG AACTGTTCG TGTGTCAAC AATTTTCAGT GTCAGAAGCT CCTGTGGCAA
TTGAATGGGA GGCTTGAATA CTGCCTCAAG GACAGGATGA ACTTTGACAT CCCTGAGGAG ATTAAGCAGC
TGCAGCAGTT CCAGAAGGAG GACGCCGAT TGACCATCTA TGAGATGCTC CAGAACATCT TTGCTATTTT
CAGACAAGAT TCATCTAGCA CTGGCTGGAA TGAGACTATT GTTGAAGACC TCCTGGCTAA TGTCTATCAT
CAGATAAACC ATCTGAAGAC AGTCCTGGAA GAAAACTGG AGAAAGAAGA TTTACCAGG GAAAACTCA
TGAGCAGTCT GCACCTGAAA AGATATTATG GGAGGATTCT GCATTACCTG AAGGCCAAGG AGTACAGTCA
CTGTGCCTGG ACCATAGTCA GAGTGAAAT CCTAAGGAAC TTTTACTTCA TTAACAGACT TACAGGTTAC
CTCCGAAACT GAAGATCTCC TAGCCTGTGC CTCTGGGACT GGACAATTGC TTCAAGCATT CTTCAACCAG
CAGATGCTGT TTAAGTGACT GATGGCTAAT GACTGCATA TGAAAGGACA CTAGAAGATT TTGAAATTTT
TATTAATTA
```

**GE100003**, scramble sequence in pCas-Guide vector



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**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\\_002176](#)

**UniProt ID:** [P01574](#)

**Synonyms:** IFB; IFF; IFNB

**Summary:** This gene encodes a cytokine that belongs to the interferon family of signaling proteins, which are released as part of the innate immune response to pathogens. The protein encoded by this gene belongs to the type I class of interferons, which are important for defense against viral infections. In addition, type I interferons are involved in cell differentiation and anti-tumor defenses. Following secretion in response to a pathogen, type I interferons bind a homologous receptor complex and induce transcription of genes such as those encoding inflammatory cytokines and chemokines. Overactivation of type I interferon secretion is linked to autoimmune diseases. Mice deficient for this gene display several phenotypes including defects in B cell maturation and increased susceptibility to viral infection. [provided by RefSeq, Sep 2015]

**Product images:**

