

## **Product datasheet for KN220029RB**

### OriGene Technologies, Inc.

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## SHP2 (PTPN11) 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-BSDSymbol:SHP2Locus ID:5781

**Components:** KN220029G1, SHP2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN220029G2, SHP2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN220029RBD, donor DNA containing left and right homologous arms and RFP-BSD

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: <u>NM 002834, NM 080601, NM 001330437</u>

UniProt ID: Q06124

Synonyms: BPTP3; CFC; JMML; METCDS; NS1; PTP-1D; PTP2C; SH-PTP2; SH-PTP3; SHP2

**Summary:** The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP)

family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains two tandem Src homology-2 domains, which function as phospho-tyrosine binding domains and mediate the interaction of this PTP with its substrates. This PTP is widely expressed in most tissues and plays a regulatory role in various cell signaling events that are important for a diversity of cell functions, such as mitogenic activation, metabolic control, transcription regulation, and cell migration. Mutations in this gene are a cause of Noonan

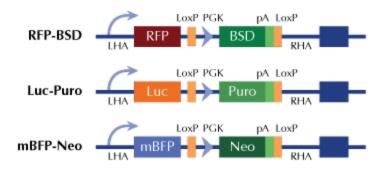
syndrome as well as acute myeloid leukemia. [provided by RefSeq, Aug 2016]





# **Product images:**

#### Donor Vector Edited Chromosome



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