

## **Product datasheet for KN201807BN**

#### OriGene Technologies, Inc.

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### Glucose 6 Phosphate Dehydrogenase (G6PD) 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: Glucose 6 Phosphate Dehydrogenase

**Locus ID:** 2539

Components: KN201807G1, Glucose 6 Phosphate Dehydrogenase gRNA vector 1 in pCas-Guide CRISPR

vector (GE100002)

KN201807G2, Glucose 6 Phosphate Dehydrogenase gRNA vector 2 in pCas-Guide CRISPR

vector (GE100002)

KN201807BND, 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.

**RefSeg:** NM 000402, NM 001042351, NM 001360016

 UniProt ID:
 P11413

 Synonyms:
 G6PD1

**Summary:** This gene encodes glucose-6-phosphate dehydrogenase. This protein is a cytosolic enzyme

encoded by a housekeeping X-linked gene whose main function is to produce NADPH, a key electron donor in the defense against oxidizing agents and in reductive biosynthetic

reactions. G6PD is remarkable for its genetic diversity. Many variants of G6PD, mostly produced from missense mutations, have been described with wide ranging levels of enzyme

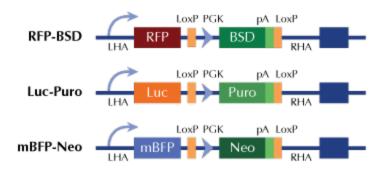
activity and associated clinical symptoms. G6PD deficiency may cause neonatal jaundice, acute hemolysis, or severe chronic non-spherocytic hemolytic anemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]





# **Product images:**

### Donor Vector Edited Chromosome



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