

# **Product datasheet for KN201232LP**

### OriGene Technologies, Inc.

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### Glucose 6 phosphate isomerase (GPI) 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:** Glucose 6 phosphate isomerase

Locus ID: 2821

**Components:** KN201232G1, Glucose 6 phosphate isomerase gRNA vector 1 in pCas-Guide CRISPR vector

(GE100002)

KN201232G2, Glucose 6 phosphate isomerase gRNA vector 2 in pCas-Guide CRISPR vector

(GE100002)

KN201232LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

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: NM 000175, NM 001184722, NM 001289789, NM 001289790, NM 001329909,

NM 001329910, NM 001329911

UniProt ID: P06744

Synonyms: AMF; GNPI; NLK; PGI; PHI; SA-36; SA36



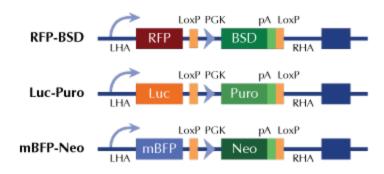


#### **Summary:**

This gene encodes a member of the glucose phosphate isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. In the cytoplasm, the gene product functions as a glycolytic enzyme (glucose-6-phosphate isomerase) that interconverts glucose-6-phosphate and fructose-6-phosphate. Extracellularly, the encoded protein (also referred to as neuroleukin) functions as a neurotrophic factor that promotes survival of skeletal motor neurons and sensory neurons, and as a lymphokine that induces immunoglobulin secretion. The encoded protein is also referred to as autocrine motility factor based on an additional function as a tumor-secreted cytokine and angiogenic factor. Defects in this gene are the cause of nonspherocytic hemolytic anemia and a severe enzyme deficiency can be associated with hydrops fetalis, immediate neonatal death and neurological impairment. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2016]

## **Product images:**

#### Donor Vector Edited Chromosome



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