

Product datasheet for **KN201232**

Glucose 6 phosphate isomerase (GPI) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	Glucose 6 phosphate isomerase
Locus ID:	2821
Components:	<p>KN201232G1, Glucose 6 phosphate isomerase gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGGCAGAGCCCGGGGATCAC</p> <p>KN201232G2, Glucose 6 phosphate isomerase gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGCTGGCCTCTGCCCGGAAG</p> <p>KN201232D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

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AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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 TCAGCTCCGG TTCCAACGA TC

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:

