

## Product datasheet for **KN212244**

### PGC1 alpha (PPARGC1A) 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:** PGC1 alpha  
**Locus ID:** 10891  
**Components:** **KN212244G1**, PGC1 alpha gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTCTGTATGGAGTGACATCG  
**KN212244G2**, PGC1 alpha gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GAGTGACATCGAGGTGAGCT  
**KN212244D**, donor DNA containing left and right homologous arms and GFP-puro functional cassette.

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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AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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 TACAGGCATC GTGGTGTAC GCTCGTCGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA ACGATC

**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\\_001330751](#), [NM\\_001330752](#), [NM\\_001330753](#), [NM\\_013261](#), [NM\\_001354825](#),  
[NM\\_001354826](#), [NM\\_001354827](#), [NM\\_001354828](#), [NR\\_148981](#), [NR\\_148982](#), [NR\\_148983](#),  
[NR\\_148984](#), [NR\\_148985](#), [NR\\_148986](#), [NR\\_148987](#)

**UniProt ID:**

[Q9UBK2](#)

**Synonyms:**

LEM6; PGC-1(alpha); PGC-1alpha; PGC-1v; PGC1; PGC1A; PPARGC1

**Summary:**

The protein encoded by this gene is a transcriptional coactivator that regulates the genes involved in energy metabolism. This protein interacts with PPARGgamma, which permits the interaction of this protein with multiple transcription factors. This protein can interact with, and regulate the activities of, cAMP response element binding protein (CREB) and nuclear respiratory factors (NRFs). It provides a direct link between external physiological stimuli and the regulation of mitochondrial biogenesis, and is a major factor that regulates muscle fiber type determination. This protein may be also involved in controlling blood pressure, regulating cellular cholesterol homeostasis, and the development of obesity. [provided by RefSeq, Jul 2008]

Product images:

