

## Product datasheet for **KN201484**

### **RIOK2 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:** RIOK2  
**Locus ID:** 55781  
**Components:** **KN201484G1**, RIOK2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCGGCTCATGTAACGCAACT  
**KN201484G2**, RIOK2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGACTTCAGGGTCTTGACCG  
**KN201484D**, 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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 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\\_001159749](#), [NM\\_018343](#)

**UniProt ID:**

[Q9BVS4](#)

**Synonyms:**

RIO2

**Summary:**

Serine/threonine-protein kinase involved in the final steps of cytoplasmic maturation of the 40S ribosomal subunit. Involved in export of the 40S pre-ribosome particles (pre-40S) from the nucleus to the cytoplasm. Its kinase activity is required for the release of NOB1, PNO1 and LTV1 from the late pre-40S and the processing of 18S-E pre-rRNA to the mature 18S rRNA (PubMed:19564402). Regulates the timing of the metaphase-anaphase transition during mitotic progression, and its phosphorylation, most likely by PLK1, regulates this function (PubMed:21880710).[UniProtKB/Swiss-Prot Function]

Product images:

