

## **Product datasheet for KN202461RB**

#### OriGene Technologies, Inc.

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## HIF-1 alpha (HIF1A) Human Gene Knockout Kit (CRISPR)

**Product data:** 

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

Donor DNA: RFP-BSD
Symbol: HIF-1 alpha

**Locus ID:** 3091

**Components: KN202461G1**, HIF-1 alpha gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

**KN202461G2**, HIF-1 alpha gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN202461RBD**, donor DNA containing left and right homologous arms and RFP-BSD

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: <u>NM 001243084, NM 001530, NM 181054</u>

UniProt ID: Q16665

Synonyms: bHLHe78; HIF-1-alpha; HIF-1A; HIF-1alpha; HIF1; HIF1-ALPHA; MOP1; PASD8

**Summary:** This gene encodes the alpha subunit of transcription factor hypoxia-inducible factor-1 (HIF-1),

which is a heterodimer composed of an alpha and a beta subunit. HIF-1 functions as a master regulator of cellular and systemic homeostatic response to hypoxia by activating transcription of many genes, including those involved in energy metabolism, angiogenesis, apoptosis, and other genes whose protein products increase oxygen delivery or facilitate

metabolic adaptation to hypoxia. HIF-1 thus plays an essential role in embryonic

vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene.

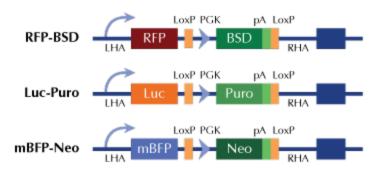
[provided by RefSeq, Jul 2011]





# **Product images:**

### Donor Vector Edited Chromosome



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