

Product datasheet for **KN307708**

Hif1a Mouse 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: Hif1a
Locus ID: 15251
Components: **KN307708G1**, Hif1a gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TTTCTTCTCGTTCTCGCCGC
KN307708G2, Hif1a gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AAAAGCCAGTCCACGGAACG
KN307708D, 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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TGGCAACAAC GTTGCACAAA CTATTAACCTG GCGAACTACT TACTCTAGCT TCCCAGGCAAC AATTAATAGA
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CACTGCGGCC AACTTACTTC TGACAACGAT CGGAGGACCG AAGGAGCTAA CCGCTTTTTT GCACAACATG
GGGGATCATG TAACTCGCCT T

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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_010431](#)

UniProt ID:

[Q61221](#)

Synonyms:

AA959795; bHLHe78; HIF-1-alpha; HIF1-alpha; HIF1alpha; MOP1

Summary:

This gene encodes the alpha subunit which, along with the beta subunit, forms a heterodimeric transcription factor that regulates the cellular and developmental response to reduced oxygen tension. The transcription factor has been shown to regulate genes involved in several biological processes, including erythropoiesis and angiogenesis which aid in increased delivery of oxygen to hypoxic regions. The transcription factor also plays a role in the induction of genes involved in cell proliferation and survival, energy metabolism, apoptosis, and glucose and iron metabolism. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2015]

Product images:

