

Product datasheet for **KN202461LP**

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

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	HIF-1 alpha
Locus ID:	3091
Components:	<p>KN202461G1, HIF-1 alpha gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TTTCTTGTCGTTGCGCCGC</p> <p>KN202461G2, HIF-1 alpha gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AGGCGGCGGCGCCGAGGGAAT</p> <p>KN202461LPD, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.</p>

Homologous arm and Luciferase-Puro sequences:

pUC vector backbone in gray; Left arm sequence in blue; Luciferase-Puro in green; Right arm in violet

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ATCTCCTTTC TCTTTCCTCC GCCGCTAAAC ACAGACGAGC ACGTGAGCGT CGCAGCCCGT CCCAGCTGTG
CCTCAGCTGA CCGCCTCCTG ATTGGCTGAG AGCGGCGTGG GCTGGGGTGG GGA CTGCGCCTGC
TCGCCATTGG ATCTCGAGGA ACCCGCCTCC ACCTCAGGTG AGGCGGGCTT GCGGGAGCGC GCGCCGGCCT
GGGCAGGCCGA GCGGGCGCGC TCCCGCCCC TCTCCCCCTCC CCGCGCGCCC GAGCGCGCAT CCGCCCTTGC
CCGCCCCCTG ACGCTGCCTC AGCTCCTCAG TGCACAGTGC TGCTCTGTCT GAGGGGACAG GAGGATCACC
CTCTTCGTCG CTTGCGCCAG TGTGTCGGC TGGGCCCTGA CAAGCCACCT GAGGAGAGGC TCGGAGCCGG
GCCCGGACCC CGGCGATTGC CGCCCGCTTC TCTTAGTCT CACGAGGGGT TTCCCGCCTC GCACCCCCAC
CTCTGGACTT GCCTTTCCTT CTCTTCTCCG CGTGTGGAGG GAGCCAGCGC TTAGGCCGGA GCGAGCCTGG
GGGCCGCCCG CCGTGAAGAC ATCGCGGGGA CCGATTACCC TCGGCGTTAA TGGGATTGGG GGGGGCAGCC
TTTTTGTTTC TGCTGCTGCT CCCCTCCCCT CTCTTCCCC AACCTCGCCG GCCGGGCTCC CCCGCTGTCC
ACGTCGCCAT CTTGTCGTGG GGGGTGGGAG ACGCCTCGAA AGTGCTTTCA GGGGCCGGG TCTGAGCCCT
GCTTGCCCTC CCCGCCGCC GTGGGGGCT CGCGCCGCC ACCTACCCG CTCAAAAACC CAGCCTGCTC
TGTGGCCCA TCCGAGGGG ACTTTACCA GCCTGAAAAC CCGGGAAGA GAAATGAGCT GCAGCTCGGT
AGCCGCGGTT TGACCCGGA GCTTCCGCTC CTCCCGCC CCATCCTCTC CAGTTCATT GAAAACTCGG
CCCTGGGGCG GACCCTGCAC GCTGTCCTG GCTTCCAGT GGACTTGGG CCTTGAGTTC CCGACTGAGG
GACTCGCTG GTCGGATGCG ATCTTGTCT GTAGTTGTC AGCCGTCGCG GGTGTCTTTG CCTTTGTGCA
TTAGGGATTT GCCGCGATGG CCTAAGATG CGAACTTTT AGTTTGCACG TGCAGGTTTT GTTTCGTTTT
AATCGCCTTG

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GE100003, scramble sequence in pCas-Guide vector



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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_001243084](#), [NM_001530](#), [NM_181054](#)

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:

