

Product datasheet for **KN204464**

BMAL1 (ARNTL) 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:	BMAL1
Locus ID:	406
Components:	KN204464G1 , BMAL1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GATTAAGACAGCCAACACCC KN204464G2 , BMAL1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGTTGGCTGTCTTAATCATC KN204464D , 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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CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA
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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_001030272](#), [NM_001030273](#), [NM_001178](#), [NM_001297719](#), [NM_001297722](#),
[NM_001297724](#), [NM_001351804](#), [NM_001351805](#), [NM_001351806](#), [NM_001351807](#),
[NM_001351808](#), [NM_001351809](#), [NM_001351810](#), [NM_001351811](#), [NM_001351812](#),
[NM_001351813](#), [NM_001351814](#), [NM_001351815](#), [NM_001351816](#), [NM_001351817](#),
[NM_001351818](#), [NM_001351819](#), [NM_001351820](#), [NM_001351821](#), [NM_001351822](#),
[NM_001351823](#), [NM_001351824](#), [NR_147785](#), [NR_147786](#), [NR_147787](#), [NR_147788](#),
[NR_147789](#), [NR_147790](#), [NR_147791](#)

UniProt ID:

[O00327](#)

Synonyms:

bHLHe5; BMAL1; BMAL1c; JAP3; MOP3; PASD3; TIC

Summary:

The protein encoded by this gene is a basic helix-loop-helix protein that forms a heterodimer with CLOCK. This heterodimer binds E-box enhancer elements upstream of Period (PER1, PER2, PER3) and Cryptochrome (CRY1, CRY2) genes and activates transcription of these genes. PER and CRY proteins heterodimerize and repress their own transcription by interacting in a feedback loop with CLOCK/ARNTL complexes. Defects in this gene have been linked to infertility, problems with gluconeogenesis and lipogenesis, and altered sleep patterns. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2014]

Product images:
