

# Product datasheet for KN301604BN

## Arntl Mouse Gene Knockout Kit (CRISPR)

### **Product data:**

#### OriGene Technologies, Inc.

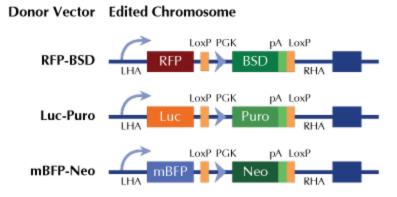
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Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control
Donor DNA:	mBFP-Neo
Symbol:	Arntl
Locus ID:	11865
Components:	<ul> <li>KN301604G1, Arntl gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN301604G2, Arntl gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN301604BND, donor DNA containing left and right homologous arms and mBFP-Neo functional cassette.</li> <li>GE100003, scramble sequence in pCas-Guide vector</li> </ul>
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 001243048, NM 007489</u>
UniProt ID:	<u>Q9WTL8</u>
Synonyms:	Arnt3; bHLHe5; Bmal1; BMAL1b; bmal1b'; MOP3
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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2014]



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#### **Product images:**



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

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