

## Product datasheet for KN201009RB

#### OriGene Technologies, Inc.

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### **Sodium Potassium ATPase (ATP1A1) 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: Sodium Potassium ATPase

Locus ID: 476

**Components: KN201009G1**, Sodium Potassium ATPase gRNA vector 1 in pCas-Guide CRISPR vector

(GE100002)

KN201009G2, Sodium Potassium ATPase gRNA vector 2 in pCas-Guide CRISPR vector

(GE100002)

KN201009RBD, 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: NM 000701, NM 001001586, NM 001160233, NM 001160234

UniProt ID: P05023

Synonyms: MGC3285; MGC51750

**Summary:** The protein encoded by this gene belongs to the family of P-type cation transport ATPases,

and to the subfamily of Na+/K+ -ATPases. Na+/K+ -ATPase is an integral membrane protein responsible for establishing and maintaining the electrochemical gradients of Na and K ions across the plasma membrane. These gradients are essential for osmoregulation, for sodium-

coupled transport of a variety of organic and inorganic molecules, and for electrical

excitability of nerve and muscle. This enzyme is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). The catalytic subunit of Na+/K+ - ATPase is encoded by multiple genes. This gene encodes an alpha 1 subunit. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by

RefSeg, May 2009]





# **Product images:**

#### Donor Vector Edited Chromosome



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