

# **Product datasheet for KN203238RB**

## **COX11 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: COX11 Locus ID: 1353

**Components:** KN203238G1, COX11 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

**KN203238G2**, COX11 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN203238RBD, 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 001162861, NM 001162862, NM 001321518, NM 004375, NR 027941, NR 027942,

NR 135677

UniProt ID: Q9Y6N1
Synonyms: COX11P



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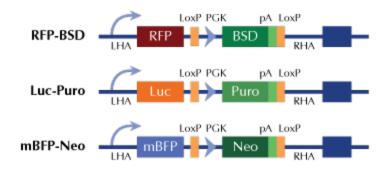


#### **Summary:**

Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes a protein which is not a structural subunit, but may be a heme A biosynthetic enzyme involved in COX formation, according to the yeast mutant studies. However, the studies in Rhodobacter sphaeroides suggest that this gene is not required for heme A biosynthesis, but required for stable formation of the Cu(B) and magnesium centers of COX. This human protein is predicted to contain a transmembrane domain localized in the mitochondrial inner membrane. Multiple transcript variants encoding different isoforms have been found for this gene. A related pseudogene has been found on chromosome 6. [provided by RefSeq, Jun 2009]

## **Product images:**

### Donor Vector Edited Chromosome



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