

## Product datasheet for KN200620LP

## OriGene Technologies, Inc.

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## **NQO1 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: NQO1 Locus ID: 1728

**Components:** KN200620G1, NQO1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN200620G2, NQO1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN200620LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

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 000903, NM 001025433, NM 001025434, NM 001286137

**UniProt ID:** <u>P15559</u>

Synonyms: DHQU; DIA4; DTD; NMOR1; NMORI; QR1

**Summary:** This gene is a member of the NAD(P)H dehydrogenase (quinone) family and encodes a

cytoplasmic 2-electron reductase. This FAD-binding protein forms homodimers and reduces quinones to hydroquinones. This protein's enzymatic activity prevents the one electron reduction of quinones that results in the production of radical species. Mutations in this gene have been associated with tardive dyskinesia (TD), an increased risk of hematotoxicity after exposure to benzene, and susceptibility to various forms of cancer. Altered expression of this protein has been seen in many tumors and is also associated with Alzheimer's disease (AD).

Alternate transcriptional splice variants, encoding different isoforms, have been

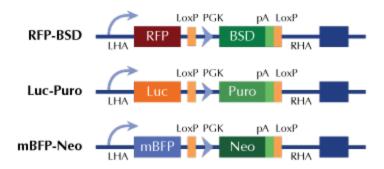
characterized. [provided by RefSeq, Jul 2008]





# **Product images:**

#### Donor Vector Edited Chromosome



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