

# Product datasheet for KN201208BN

## OriGene Technologies, Inc.

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## **APE1 (APEX1) Human Gene Knockout Kit (CRISPR)**

#### **Product data:**

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

**Donor DNA:** mBFP-Neo

Symbol: APE1 Locus ID: 328

**Components: KN201208G1**, APE1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN201208G2, APE1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN201208BND, donor DNA containing left and right homologous arms and mBFP-Neo

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: <u>NM 001244249</u>, <u>NM 001641</u>, <u>NM 080648</u>, <u>NM 080649</u>

UniProt ID: P27695

Synonyms: APE; APE1; APEN; APEX; APX; HAP1; REF1

**Summary:** The APEX gene encodes the major AP endonuclease in human cells. It encodes the APEX

endonuclease, a DNA repair enzyme with apurinic/apyrimidinic (AP) activity. Such AP activity sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. The AP sites are the most

frequent pre-mutagenic lesions that can prevent normal DNA replication. Splice variants have been found for this gene; all encode the same protein. Disruptions in the biological functions related to APEX are associated with many various malignancies and neurodegenerative

diseases.[provided by RefSeg, Dec 2019]





# **Product images:**

### Donor Vector Edited Chromosome



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