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Product datasheet for KN208007RB

NADPH oxidase 4 (NOX4) 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: NADPH oxidase 4

Locus ID: 50507

Components: **KN208007G1**, NADPH oxidase 4 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GAGCTGGCTCGCCAACGAAG
KN208007G2, NADPH oxidase 4 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCCTAGCCCGCCATCCTACC
KN208007RBD, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.
Homologous arm and RFP-BSD sequences:

pUC vector backbone in gray; Left arm sequence in blue; RFP-BSD in green; Right arm in violet

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AGAAGTAAGT TGGCCGCAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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GCAACGTTGT TGCCATTGCT ACAGGCATCG TGGTGTCACG CTCGTCGTTT GGTATGGCTT CATTCAGCTC
CGGTTCCCAA CGATC

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.

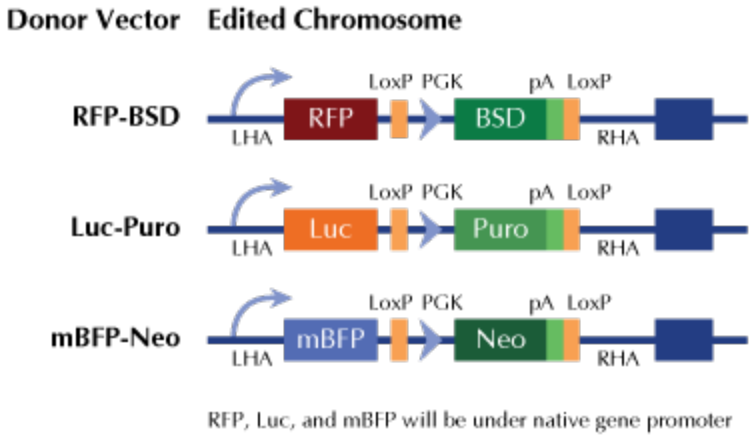
RefSeq: NM_001143836, NM_001143837, NM_001291926, NM_001291927, NM_001291929, NM_001300995, NM_016931, NR_026571, NR_120406

UniProt ID: Q9NPH5

Synonyms: KOX; KOX-1; RENOX

Summary: This gene encodes a member of the NOX-family of enzymes that functions as the catalytic subunit the NADPH oxidase complex. The encoded protein is localized to non-phagocytic cells where it acts as an oxygen sensor and catalyzes the reduction of molecular oxygen to various reactive oxygen species (ROS). The ROS generated by this protein have been implicated in numerous biological functions including signal transduction, cell differentiation and tumor cell growth. A pseudogene has been identified on the other arm of chromosome 11. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Jan 2009]

Product images:



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