

Product datasheet for KN218134RB

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com

OriGene Technologies, Inc.

https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

SIRT1 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: SIRT1 Locus ID: 23411

Components: KN218134G1, SIRT1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN218134G2, SIRT1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN218134RBD, 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: <u>NM 001142498</u>, <u>NM 001314049</u>, <u>NM 012238</u>

UniProt ID: Q96EB6

Synonyms: SIR2; SIR2alpha; SIR2L1

Summary: This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2

protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. The protein encoded by this

gene is included in class I of the sirtuin family. Alternative splicing results in multiple

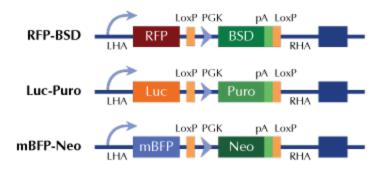
transcript variants. [provided by RefSeq, Dec 2008]





Product images:

Donor Vector Edited Chromosome



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