

Product datasheet for KN218572LP

OriGene Technologies, Inc.

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AMPK alpha 1 (PRKAA1) 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: AMPK alpha 1

Locus ID: 5562

Components: KN218572G1, AMPK alpha 1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN218572G2, AMPK alpha 1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN218572LPD, 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 006251, NM 206907, NM 001355028, NM 001355029, NM 001355034, NM 001355035,

NM 001355036, NM 001355037

UniProt ID: Q13131

Synonyms: AMPK; AMPKa1

Summary: The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the

catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul

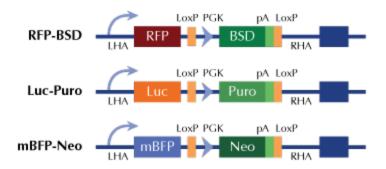
2008]





Product images:

Donor Vector Edited Chromosome



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