

Product datasheet for **KN218572**

AMPK alpha 1 (PRKAA1) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)
Format: 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA: GFP-puro
Symbol: AMPK alpha 1
Locus ID: 5562
Components: **KN218572G1**, AMPK alpha 1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GAAGATCGGCCACTACATTC
KN218572G2, AMPK alpha 1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCGTGTCACCCAGAATGTAG
KN218572D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

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 CACTGCGGCC AACTTACTTC TGACAACGAT CGGAGGACCG AAGGAGCTAA CCGCTTTTTT GCACAACATG
 GGGGATCATG TAACTCGCCT T

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:

