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PRKAA2 Knockout HCT116 Cell Lysate, Homozygous

Catalog No.: RM02035

Basic Information

Catalog No.
RM02035

Category
Cell Lysate

Parental Cell line
HCT116

Genotype
Knockout

Gene Information

Gene Symbol
PRKAA2

Species
Human

Gene ID
5563

Swiss Prot
P54646

Synonyms
AMPK; AMPK2; AMPKa2; PRKAA

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Background

The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia. [provided by RefSeq, Jul 2008]

Product Information

Description
PRKAA2 Knockout HCT116 Cell Line is engineered from HCT116 cell line with Gene-Editing technology.
Allele-1:76bp deletion in exon4
Allele-2:88bp deletion in exon4
Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging
1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping Conditions
4℃

Amount
50μL, 2μg/μL.

Storage
Store at -20℃

Protocol
To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT AACAGGACATTCTC**********GAATGTCCTGTTGG
Mut AACAGGACATTCTC***Deletion***GAATGTCCTGTTGG
Allele-1: 76bp deletion in exon4

WT TGGAAGCCAGGCGG**********ATGCACACATGAAT
Mut TGGAAGCCAGGCGG***Deletion***ATGCACACATGAAT
Allele-2: 88bp deletion in exon4

Genome sequence analysis of PCR products from parental (WT) and PRKAA2 knockout (KO) HCT116 cells, using sanger sequencing.

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