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ACACA Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM02043

Basic Information

Catalog No.
RM02043

Category
Cell Lysate

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
ACACA

Species
Human

Gene ID
31

Swiss Prot
Q13085

Synonyms
ACAC; ACACAD; ACC; ACC1; ACCA

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Background

Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system. ACC is a biotin-containing enzyme which catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. There are two ACC forms, alpha and beta, encoded by two different genes. ACC-alpha is highly enriched in lipogenic tissues. The enzyme is under long term control at the transcriptional and translational levels and under short term regulation by the phosphorylation/dephosphorylation of targeted serine residues and by allosteric transformation by citrate or palmitoyl-CoA. Multiple alternatively spliced transcript variants divergent in the 5' sequence and encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product Information

Description
ACACA Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.
Allele-1:23bp deletion in exon2
Allele-2:49bp deletion in exon2
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 TGCGGTCTATCCGT**********AAATGAACGTGCAA
Mut TGCGGTCTATCCGT***Deletion***AAATGAACGTGCAA
Allele-1: 23bp deletion in exon2

WT TGCGGTCTATCCGT**********TCATGGTCACACCT
Mut TGCGGTCTATCCGT***Deletion***TCATGGTCACACCT
Allele-2: 49bp deletion in exon2

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