

# 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

## Contact

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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°C

### Amount

50μL, 2μg/μL.

### Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

### 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

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WT TGC GGTCTATCCGT\*\*\*\*\*AAATGAACGTGCAA  
Mut TGC GGTCTATCCGT\*\*\*Deletion\*\*\*AAATGAACGTGCAA  
Allele-1: 23bp deletion in exon2

WT TGC GGTCTATCCGT\*\*\*\*\*TCATGGTCACACCT  
Mut TGC GGTCTATCCGT\*\*\*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.