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**Product Name:** KD-Validated Acetyl-CoA Carboxylase Alpha Recombinant Rabbit Monoclonal Antibody

**Catalog #:** KVAAb01064

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM                                                                      |
| <b>Reactivity</b>   | Human                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                      |
|-------------------------|--------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000 |
| <b>Molecular Weight</b> | Calculated MW: 265.6kDa              |

## Antigen Information

|                          |                                                                                                                                              |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | ACACA<br>ACACA; Acetyl-CoA Carboxylase Alpha; ACC1; ACCA; Acetyl-Coenzyme A Carboxylase Alpha;                                               |
| <b>Alternative Names</b> | Acetyl-CoA Carboxylase 1; ACC-Alpha; HACC1; ACAC; ACACalpha; ACCalpha; Acac1; ACC; EC 6.4.1.2; ACACALPHA; ACC-ALPHA; ACCALPHA; ACACAD; ACAC1 |
| <b>Gene ID</b>           | 31.0                                                                                                                                         |
| <b>SwissProt ID</b>      | Q13085                                                                                                                                       |
| <b>Immunogen</b>         | A synthesized peptide derived from human Acetyl Coenzyme A Carboxylase                                                                       |

## Background

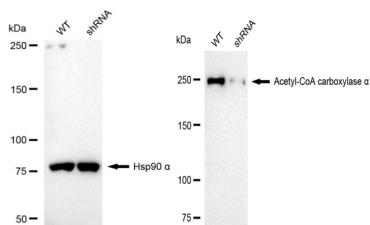
Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system. ACC is a biotin-containing enzyme which catalyzes

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]

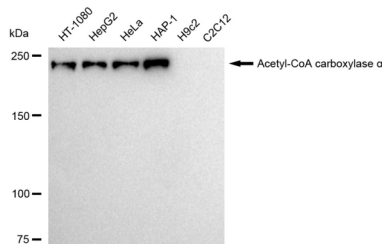
## Research Area

Cardiovascular, Signal Transduction, Cancer, Metabolism

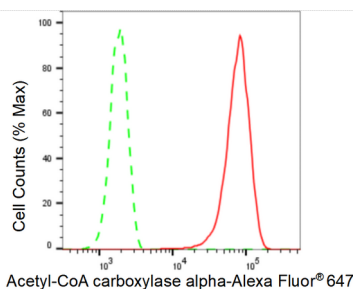
## Image Data



Western blotting analysis using Acetyl-CoA carboxylase  $\alpha$  antibody (KVA01064). Acetyl-CoA carboxylase  $\alpha$  expression in wild type (WT) and Acetyl-CoA carboxylase  $\alpha$  shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with Acetyl-CoA carboxylase  $\alpha$  antibody (KVA01064, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Acetyl-CoA carboxylase alpha antibody (KVA01064). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Acetyl-CoA carboxylase alpha antibody (KVA01064, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Flow cytometric analysis of Acetyl-CoA carboxylase alpha expression in HepG2 cells using Acetyl-CoA carboxylase alpha antibody (KVA01064, 1:2,000). Green, isotype control; red, Acetyl-CoA carboxylase alpha.