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# Acetyl Coenzyme A Carboxylase Antibody

Rabbit mAb
Catalog # AP93216

## Product Information

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| **Application** | WB, IHC, IF, ICC, IHF |
| **Primary Accession** | Q13085 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Other Names** | ACAC; ACACA; ACC alpha; ACC1; ACCA; Acetyl Coenzyme A; Biotin carboxylase; |
| **Isotype** | Rabbit IgG |
| **Host** | Rabbit |
| **Calculated MW** | 265554 |

## Additional Information

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| **Dilution** | WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 |
| **Purification** | Affinity-chromatography |
| **Immunogen** | A synthesized peptide derived from human Acetyl Coenzyme A Carboxylase |
| **Description** | Catalyzes the rate-limiting reaction in the biogenesis of long-chain fatty acids. Carries out three functions: biotin carboxyl carrier protein, biotin carboxylase and carboxyltransferase. |
| **Storage Condition and Buffer** | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |

## Protein Information

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| **Name** | ACACA ( HGNC:84) |
| **Synonyms** | ACAC, ACC1, ACCA |
| **Function** | Cytosolic enzyme that catalyzes the carboxylation of acetyl- CoA to malonyl-CoA, the first and rate-limiting step of de novo fatty acid biosynthesis (PubMed:20457939, PubMed:20952656, PubMed:29899443). This is a 2 steps reaction starting with the ATP-dependent carboxylation of the biotin carried by the biotin carboxyl carrier (BCC) domain followed by the transfer of the carboxyl group from carboxylated biotin to acetyl-CoA (PubMed:20457939, PubMed:20952656, PubMed:29899443). |
| **Cellular Location** | Cytoplasm, cytosol {ECO:0000250\|UniProtKB:Q5SWU9} |
| **Tissue Location** | Expressed in brain, placenta, skeletal muscle, renal, pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver |