



# Rabbit Anti-ACACA monoclonal antibody, clone TU64-19 (DCABH-204)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

Target	Acetyl CoA Carboxylase 1(ACC1)
Immunogen	Recombinant protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Clone	TU64-19
Purification	Protein A purified.
Conjugate	Unconjugated
Applications	WB, IHC
Molecular Weight	265 kDa
Cellular Localization	Cytoplasm.
Positive Control	Human kidney tissue, mouse placenta tissue, mouse kidney lysates.
Format	Liquid
Size	100 μΙ
Buffer	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
Preservative	0.05% Sodium Azide

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Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

## **BACKGROUND**

#### Introduction

Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system which catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. Exercise diminishes the activity of acetyl-CoA carboxylase in human muscle. ACC $\alpha$  (ACC1) is the rate-limiting enzyme in the biogenesis of long-chain fatty acids, and ACC $\beta$  (ACC2) may control mitochondrial fatty acid oxidation. These two isoforms of ACC control the amount of fatty acids in the cells. The catalytic function of ACC $\alpha$  is regulated by phosphorylation (inactive) and dephosphorylation (active) of targeted serine residues and by allosteric transformation by citrate or palmitoyl-CoA, which serve as the enzyme's short-term regulatory mechanism. The gene encoding ACC $\alpha$  maps to human chromosome 17 and encodes a form of ACC, which is the major ACC in lipogenic tissues. The catalytic core of ACC $\beta$  is homologous to that of the ACC $\alpha$ , except for an additional peptide of about 150 amino acids at the N-terminus.

### Keywords

ACAC;ACACA;ACACA\_HUMAN;ACACB;ACC alpha;ACC;ACC beta;ACC-alpha;ACC1;ACC2;ACCA;ACCB;Acetyl CoA carboxylase 1;Acetyl CoA carboxylase 2;Acetyl CoA carboxylase alpha;Acetyl CoA carboxylase beta;Acetyl Coenzyme A carboxylase alpha;Acetyl Coenzyme A carboxylase beta;Biotin carboxylase;COA1;COA2;HACC275;OTTHUMP00000164069;OTTHUMP00000164070;OTTHUMP000001

**GENE INFORMATION** 

Entrez Gene ID

10533

antibody