

Anti-Acetyl Coenzyme A carboxylase alpha Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

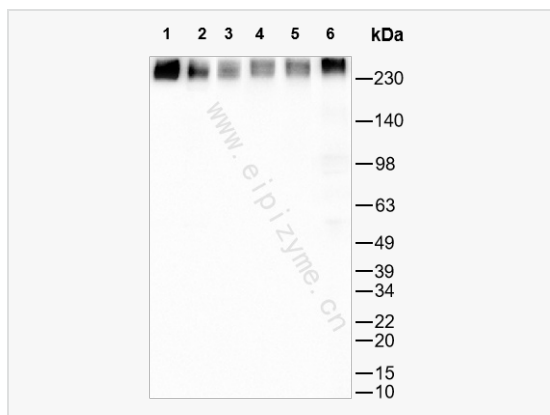
Catalog # R016147

Product Information

Application	WB, IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	62K63Q52
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human Acetyl Coenzyme A carboxylase alpha
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Acetyl Coenzyme A carboxylase alpha Rabbit mAb [62K63Q52] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	ACAC; ACACA; ACACA; ACACA_HUMAN; ACC alpha; ACC-alpha; ACC1; ACC1; ACCA; Acetyl Coenzyme A; Biotin carboxylase; ACACA_MOUSE; Acetyl Coenzyme A carboxylase alpha; ACACA_RAT; Acetyl-CoA carboxylase I; ACC-alpha;
Calculated MW	Calculated MW: 266 kDa; Observed MW: 266 kDa
Uniprot ID	Q13085, Q5SWU9, P11497
Gene ID	31, 107476, 60581
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]
Cellular Location	Mitochondrion
Tissue Location	Widely expressed with highest levels in heart, skeletal muscle, liver, adipose tissue, mammary gland, adrenal gland and colon (PubMed:9099716). Isoform 3 is expressed in skeletal muscle, adipose tissue and liver (at protein level) (PubMed:19190759). Isoform 3 is detected at high levels in adipose tissue with lower levels in heart, liver, skeletal muscle and testis



Western Blot - Anti-Acetyl Coenzyme A carboxylase alpha Rabbit mAb [62K63Q52]

All lanes: R016147 at 1:1,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: MCF-7 (human breast adenocarcinoma epithelial cell) whole cell lysates

Lane 4: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 5: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

Lane 6: Rat liver whole tissue lysates

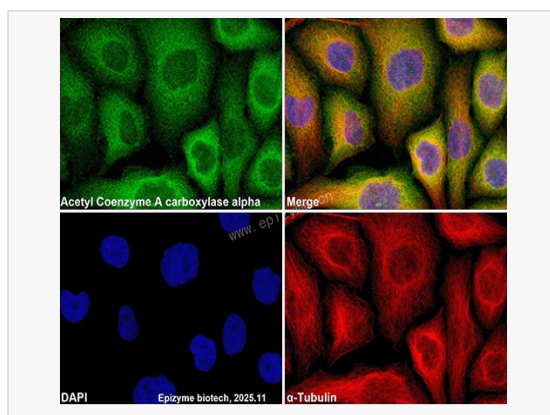
Lysates/proteins at 10 μ g per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 266 kDa

Observed band size: 266 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-Acetyl Coenzyme A carboxylase alpha Rabbit mAb

[62K63Q52]

Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R016147 at 1:100 dilution and α -tubulin Mouse Monoclonal

Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and

Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).