

Basic Information

Product Name	Anti-ACC1/ACACA Antibody	
Gene Name	ACACA	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, rat	
Tested Application	WB, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human ACACA recombinant protein (Position: D31-R2336).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	266 kDa	
Dilution Ratios	Western blot (WB): Immunocytochemistry/Immunofluorescence (ICC/IF): Flow Cytometry (Fixed): Enzyme linked immunosorbent assay (ELISA):	1:500-2000 1:50-400 1:50-200 1:100-1000

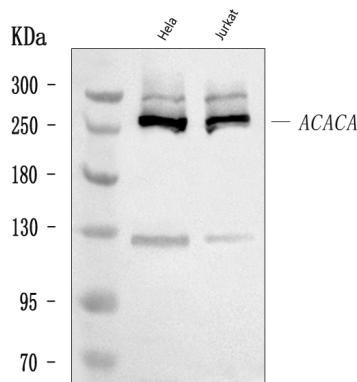
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Acetyl-CoA carboxylase 1 also known as ACC-alpha or ACCa is an enzyme that in humans is encoded by the ACACA gene. 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.

Selected Validation Data

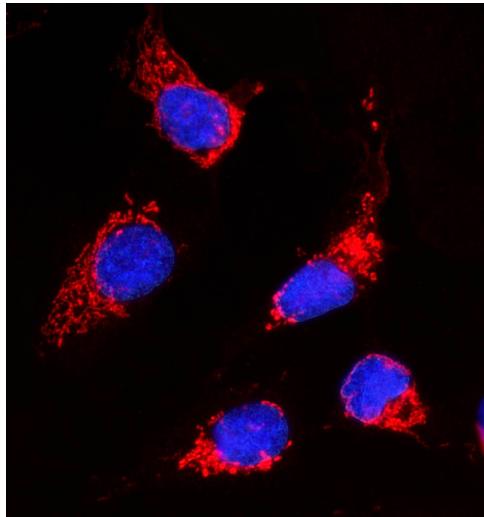


Western blot analysis of ACC1/ACACA using anti-ACC1/ACACA antibody (A01802-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

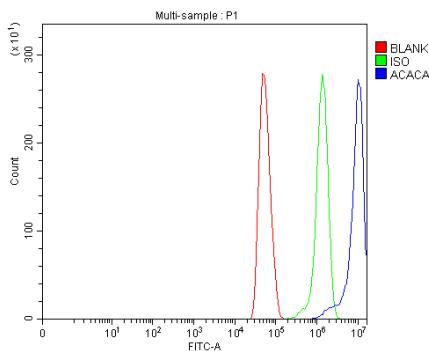
Lane 1: human Hela whole cell lysates,

Lane 2: human Jurkat whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ACC1/ACACA antigen affinity purified polyclonal antibody (A01802-3) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ACC1/ACACA at approximately 266 kDa. The expected band size for ACC1/ACACA is at 266 kDa.



ICC/IF analysis of ACACA using anti-ACACA antibody (A01802-3). ACACA was detected in an immunocytochemical section of U2OS cells. Fluoro594-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1142) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of U251 cells using anti-ACC1/ACACA antibody (A01802-3).

Overlay histogram showing U251 cells stained with A01802-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACC1/ACACA Antibody (A01802-3) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.