

# Acetyl CoA Carboxylase Antibody

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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IHC-P, IF-IC, F Endogenous	H, M, R, Mk, B, (C, Dm)	280 kDa	Rabbit**

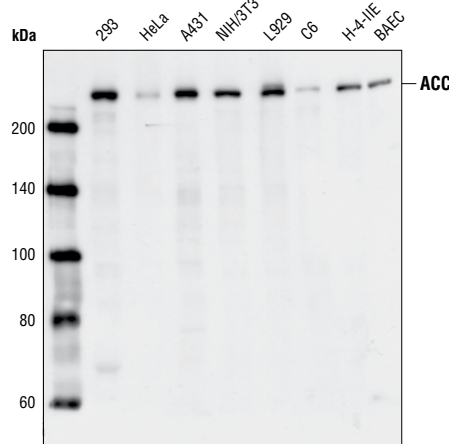
**Background:** Acetyl-CoA carboxylase (ACC) catalyzes the pivotal step of the fatty acid synthesis pathway. The 265 kDa ACC $\alpha$  is the predominant isoform in liver, adipocytes and mammary gland, while the 280 kDa ACC $\beta$  is the major isoform in skeletal muscle and heart (1). Phosphorylation by AMPK at Ser79, or by PKA at Ser1200, inhibits the enzymatic activity of ACC (2). ACC is a potential target of anti-obesity drugs (3,4).

**Specificity/Sensitivity:** Acetyl CoA Carboxylase Antibody detects endogenous levels of all isoforms of acetyl CoA carboxylase protein.

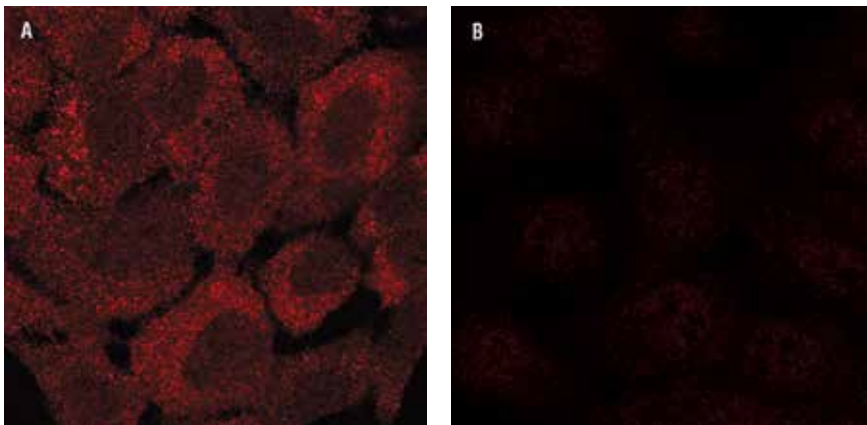
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser523 of human acetyl CoA carboxylase alpha1. Antibodies are purified by protein A and peptide affinity chromatography.

#### Background References:

- (1) Ruderman, N.B. et al. (1999) *Am. J. Physiol.* 276, E1–E18.
- (2) Ha, J. et al. (1994) *J. Biol. Chem.* 269, 22162–22168.
- (3) Abu-Elheiga, L. et al. (2001) *Science* 291, 2613–2616.
- (4) Levert, K.L. et al. (2002) *J. Biol. Chem.* 277, 16347–16350.



Western blot analysis of extracts from HEK293, HeLa, A431, NIH/3T3, L929, C6, H-4-II-E and BAEC cells, using Acetyl CoA Carboxylase Antibody.



Confocal microscopic images of A431 cells showing cytoplasmic stain with Acetyl CoA Carboxylase Antibody (A) compared to an isotype control (B).

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

Entrez-Gene ID # 31  
Swiss-Prot Acc. # Q13085

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**

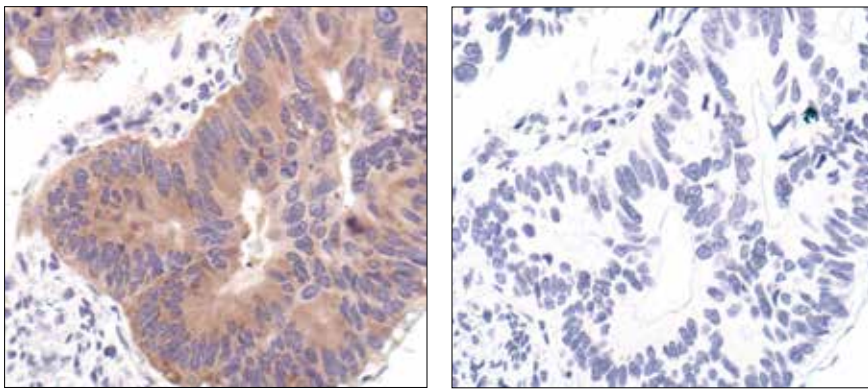
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

#### Recommended Antibody Dilutions:

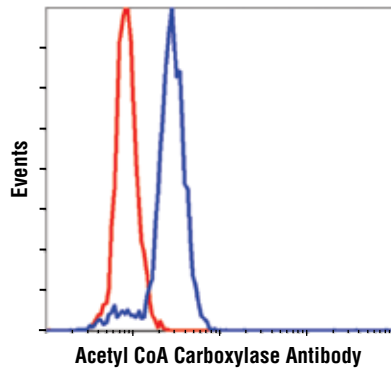
Western blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer: SignalStain® Citrate Unmasking Solution (10X) #14746	
Antibody diluent: SignalStain® Antibody Diluent #8112	
Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114	
Immunofluorescence (IF-IC)	1:50
Flow Cytometry	1:50

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

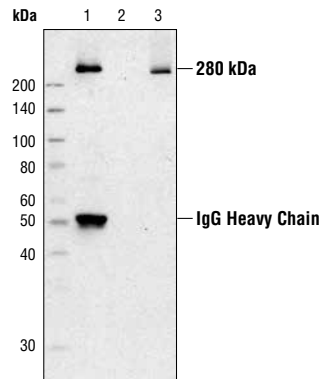
**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using Acetyl CoA Carboxylase Antibody in the presence of control peptide (left) or AcetylCoA Carboxylase Blocking Peptide #1062 (right).



Flow cytometric analysis of untreated HeLa cells, using Acetyl CoA Carboxylase Antibody (blue) compared to a nonspecific negative control antibody (red).



Immunoprecipitation of Acetyl-CoA Carboxylase from AICAR treated C2C12 cell extracts using Acetyl CoA Carboxylase antibody (Lane 1). Lane 2: No antibody control. Lane 3: Input control.