

#3662 Store at -20°C

Acetyl CoA Carboxylase Antibody

100 µl
 (10 Western mini-blots)



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This product is for *in vitro* research use only and is not intended for use in humans or animals.
 This product is not intended for use as a therapeutic or 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** |

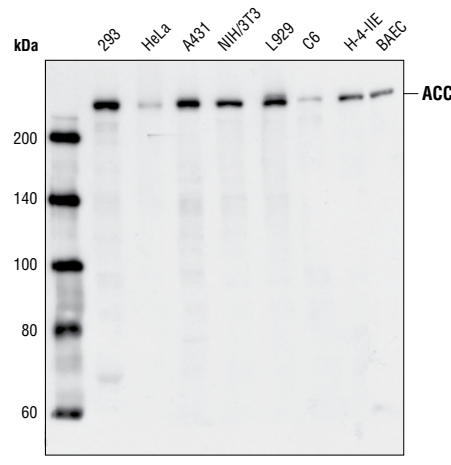
Background: Acetyl-CoA carboxylase (ACC) catalyzes the pivotal step of the fatty acid synthesis pathway. The 265 kDa ACC α is the predominant isoform in liver, adipocytes and mammary gland, while the 280 kDa ACC β is the major isoform in skeletal muscle and heart (1). Phosphorylation by AMPK at Ser79, 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 (KLH-coupled) corresponding to residues surrounding Lys557 of human acetyl CoA carboxylase α 1. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- Ruderman, N.B. et al. (1999) *Am. J. Physiol.* 276, E1-E18.
- Ha, J. et al. (1994) *J. Biol. Chem.* 269, 22162-22168.
- Abu-Elheiga, L. et al. (2001) *Science* 291, 2613-2616.
- 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.

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.**

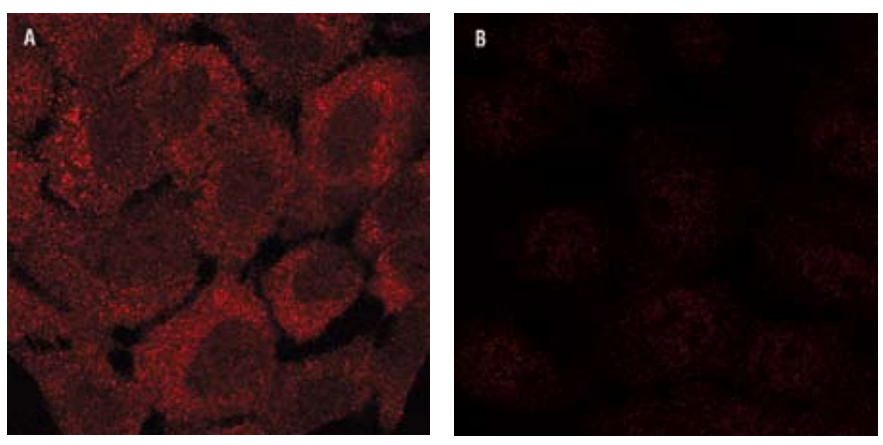
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

| | |
|---------------------------------|------------|
| Western blotting | 1:1000 |
| Immunoprecipitation | 1:50 |
| Immunohistochemistry (Paraffin) | 1:50 |
| Unmasking buffer: | Citrate |
| Antibody diluent: | TBST-5%NGS |
| Immunofluorescence (IF-IC) | 1:50 |
| Flow Cytometry | 1:25 |

For application specific protocols please see the web page for this product at www.cellsignaling.com.

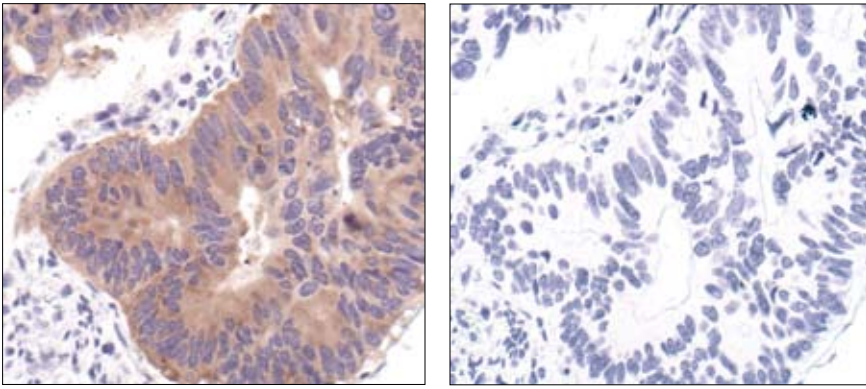
Please visit www.cellsignaling.com for a complete listing of recommended companion products.



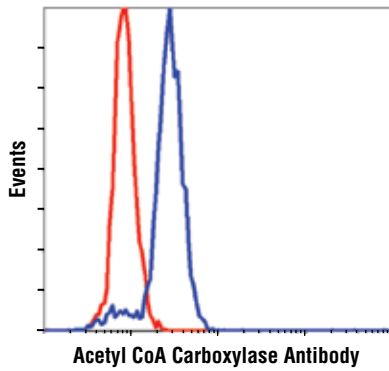
Confocal microscopic images of A431 cells showing cytoplasmic stain with Acetyl CoA Carboxylase Antibody (A) compared to an isotype control (B).

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.

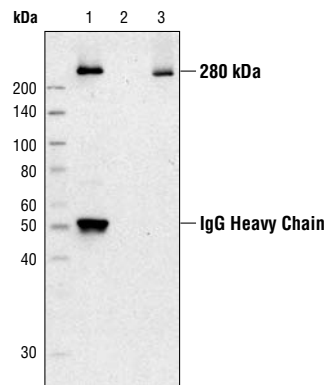
Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebra fish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.



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.