#3676 Store at –20°C

Acetyl-CoA Carboxylase (C83B10) Rabbit mAb

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Entrez-Gene ID #31
UniProt ID #Q13085

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IHC-P, IF-IC, F Endogenous	H, M, R, Hm	280 kDa	Rabbit IgG**

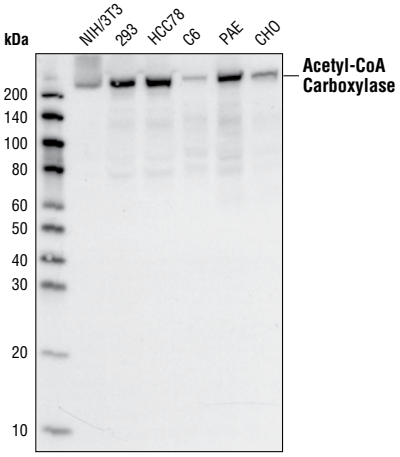
Background: Acetyl-CoA carboxylase (ACC) catalyzes the pivotal step of the fatty acid synthesis pathway. The 265 kDa ACCα is the predominant isoform in liver, adipocytes and mammary gland, while the 280 kDa ACCβ is the major isoform in skeletal muscle and heart (1). Phosphorylation by AMPK at Ser79 or 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 (C83B10) Rabbit mAb detects endogenous levels of all isoforms of acetyl-CoA carboxylase protein.

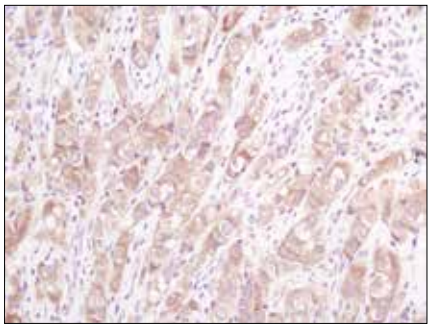
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser523 of human acetyl-CoA carboxylase α1.

Background References:

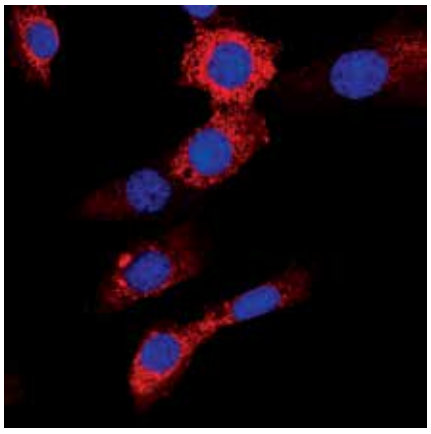
(1) Ruderman, N.B. et al. (1999) *Am. J. Physiol.* 276, E1–E18.
(2) Ha, J. et al. (1994) *J. Biol. Chem.* 269, 22162–22168.
(3) Abu-Elheiga, L. et al. (2001) *Science* 291, 2613–2616.
(4) Levert, K.L. et al. (2002) *J. Biol. Chem.* 277, 16347–16350.



Western blot analysis of cell extracts from various cell lines, using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb.



*Confocal immunofluorescent analysis of NIH/3T3 cells labeled with Acetyl-CoA Carboxylase (C83B10) Rabbit mAb (red). Blue pseudocolor=*DRAQ5® *#4084 (fluorescent DNA dye).*

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	1:100
Immunohistochemistry (Paraffin)	1:100†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:400

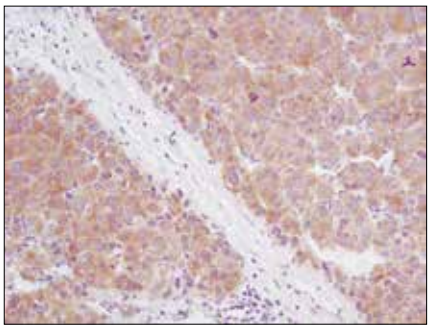
For application specific protocols please see the web page for this product at www.cellsignal.com.

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

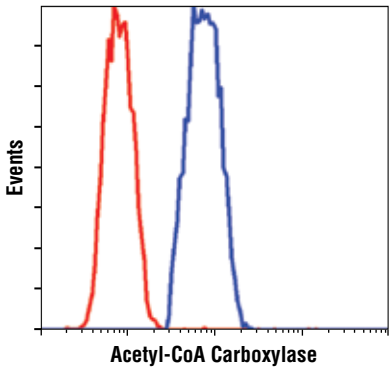
IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

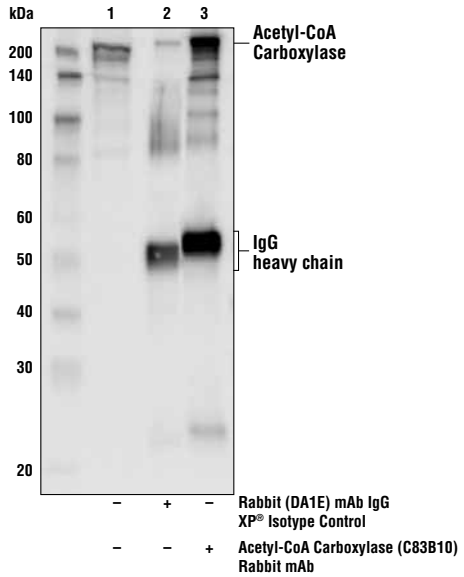
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



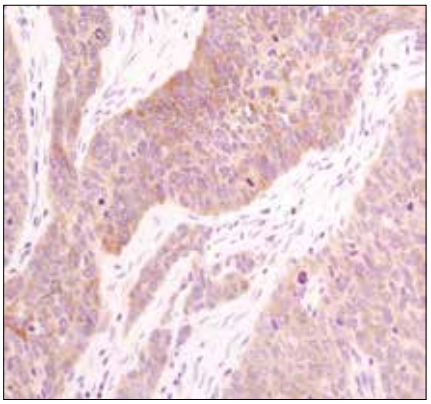
Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma, using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb.



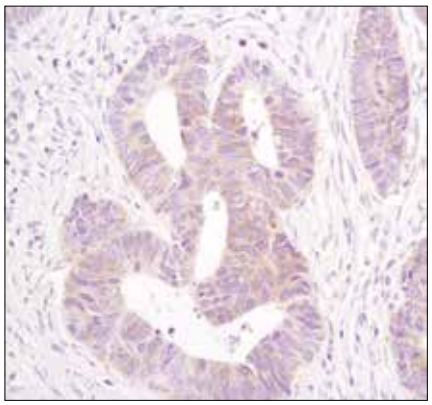
Flow cytometric analysis of 293 cells, using Acetyl-CoA Carboxylase (C83B10) Rb mAb (blue) compared to a nonspecific negative control antibody (red).



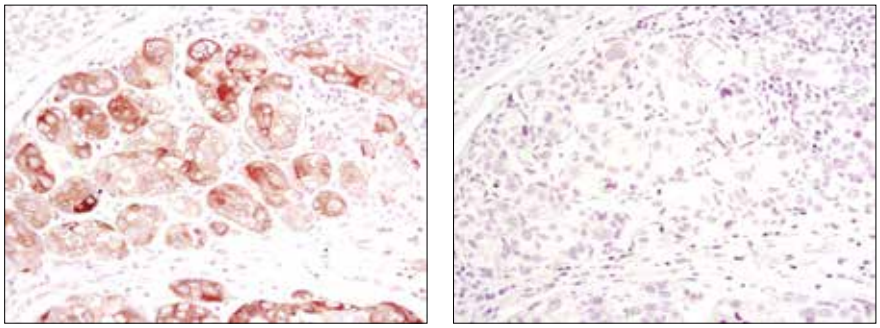
Immunoprecipitation of Acetyl-CoA Carboxylase from HeLa cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP® Isotype Control #3900, and lane 3 is Acetyl-CoA Carboxylase (C83B10) Rabbit mAb. Western blot analysis was performed using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Acetyl-CoA Carboxylase (C83B10) Rabbit mAb in the presence of control peptide (left) or Acetyl-CoA Carboxylase (C83B10) Blocking Peptide #1062 (right).