#3661 Store at –20°C

Phospho-Acetyl-CoA Carboxylase (Ser79) Antibody

Cell Signaling TECHNOLOGY®

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

Entrez-Gene ID #31
UniProt ID #Q13085

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

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: Phospho-Acetyl-CoA Carboxylase (Ser79) Antibody detects endogenous levels of ACC only when phosphorylated at serine 79. The antibody recognizes both ACCα and ACCβ.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser79 of rat ACC. Antibodies are purified by protein A and peptide affinity chromatography.

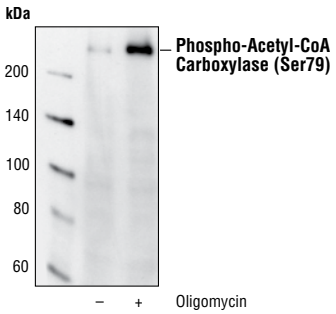
Background References:

(1) Ruderman, N.B. et al. (1999) *Am. J. Physiol.* 276, E1–E18.

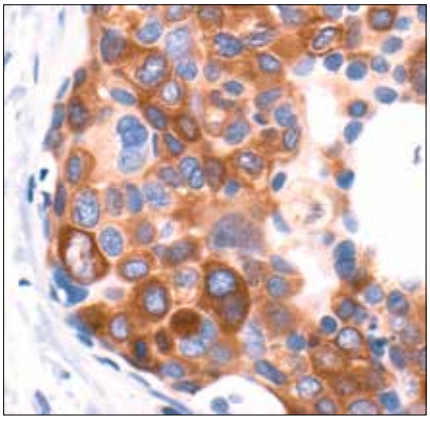
(2) Ha, J. et al. (1994) *J. Biol. Chem.* 269, 22162–22168.

(3) Abu-Elheiga, L. et al. (2001) *Science* 291, 2613–2616.

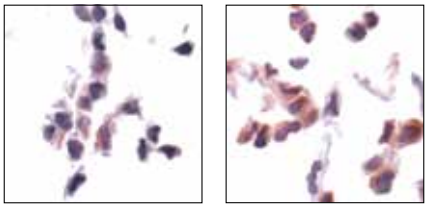
(4) Levert, K.L. et al. (2002) *J. Biol. Chem.* 277, 16347–16350.



Western blot analysis of extracts from HEK293 cells, untreated or oligomycin-treated, using Phospho-Acetyl-CoA Carboxylase (Ser79) Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, showing cytoplasmic localization, using Phospho-Acetyl-CoA Carboxylase (Ser79) Antibody.



Immunohistochemical analysis of paraffin-embedded NIH/3T3 cells, untreated (left) or serum-starved (right), using Phospho-Acetyl-CoA Carboxylase (Ser79) Antibody.

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)	1:800†
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.*

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% BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Tween®20 is a registered trademark of ICI Americas, Inc.

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.