#8578 Store at -20°C

Acetyl-CoA Carboxylase 2 (D5B9) Rabbit mAb

Cell Signaling TECHNOLOGY®

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H	280 kDa	Rabbit IgG**

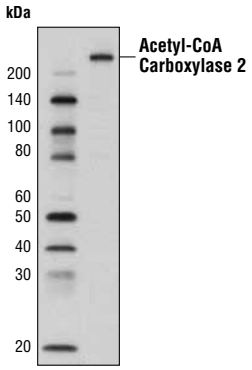
Background: Acetyl-CoA carboxylase (ACC) catalyzes the carboxylation of acetyl-CoA to malonyl-CoA (1). It is the key enzyme in the biosynthesis and oxidation of fatty acids (1). In rodents, the 265 kDa ACC1 (ACCα) form is primarily expressed in lipogenic tissues, while the 280 kDa ACC2 (ACCβ) form is the main isoform in oxidative tissues (1,2). However, in humans, ACC2 is the predominant isoform in both lipogenic and oxidative tissues (1,2). Phosphorylation by AMPK at Ser79 or by PKA at Ser1200 inhibits the enzymatic activity of ACC (3). ACC is a potential target of anti-obesity drugs (4,5).

Specificity/Sensitivity: Acetyl-CoA Carboxylase 2 (D5B9) Rabbit mAb recognizes endogenous levels of total acetyl-CoA carboxylase 2 protein and does not cross-react acetyl-CoA carboxylase 1.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser1400 of human acetyl-CoA carboxylase 2 protein.

Background References:

(1) Castle, J.C. et al. (2009) *PLoS One* 4, e4369.
(2) Kreuz, S. et al. (2009) *Diabetes Metab Res Rev* 25, 577-86.
(3) Ha, J. et al. (1994) *J Biol Chem* 269, 22162-8.
(4) Abu-Elheiga, L. et al. (2001) *Science* 291, 2613-6.
(5) Levert, K.L. et al. (2002) *J Biol Chem* 277, 16347-50.



Western blot analysis of extracts from human adipocytes using Acetyl-CoA Carboxylase 2 (D5B9) Rabbit mAb.

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.

Entrez-Gene ID #32
Swiss-Prot Acc. #000763

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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

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.

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.