Revision 4

Store at -20C

#3676

Acetyl-CoA Carboxylase (C83B10) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IP, IHC-P, IF-IC, FC-FP	H M R Hm	Endogenous	280	Rabbit IgG	#Q13085, #O00763	31, 32

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:50 - 1:200
Immunofluorescence (Immunocytochemistry)	1:100 - 1:200
Flow Cytometry (Fixed/Permeabilized)	1:200 - 1:800

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.

For a carrier free (BSA and azide free) version of this product see product #52923.

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

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 280 kDa ACC2 (ACCβ) 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).

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.
6. Fullerton, M.D. et al. (2013) *Nat Med* 19, 1649-54.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Hm:** Hamster

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