

**#3662** Store at -20°C

# Acetyl-CoA Carboxylase Antibody


**Cell Signaling**  
TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P, IF-IC, FC-FP	H M R Mk B	Endogenous	280	Rabbit	#Q13085, #O00763	31, 32

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:50
	Immunohistochemistry (Paraffin)	1:50
	Immunofluorescence (Immunocytochemistry)	1:50
	Flow Cytometry (Fixed/Permeabilized)	1:50
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.	
Specificity / Sensitivity	Acetyl CoA Carboxylase Antibody detects endogenous levels of all isoforms of acetyl CoA carboxylase protein.	
Species predicted to react based on 100% sequence homology:	Chicken, D. melanogaster, Pig	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser523 of human acetyl CoA carboxylase alpha1. Antibodies are purified by protein A and peptide affinity chromatography.	
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	<ol style="list-style-type: none"> <li>1. Castle, J.C. et al. (2009) <i>PLoS One</i> 4, e4369.</li> <li>2. Kreuz, S. et al. (2009) <i>Diabetes Metab Res Rev</i> 25, 577-86.</li> <li>3. Ha, J. et al. (1994) <i>J Biol Chem</i> 269, 22162-8.</li> <li>4. Abu-Elheiga, L. et al. (2001) <i>Science</i> 291, 2613-6.</li> <li>5. Levert, K.L. et al. (2002) <i>J Biol Chem</i> 277, 16347-50.</li> </ol>	

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	<b>WB:</b> Western Blotting <b>IP:</b> Immunoprecipitation <b>IHC-P:</b> Immunohistochemistry (Paraffin) <b>IF-IC:</b> Immunofluorescence (Immunocytochemistry) <b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected

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