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Acetyl-CoA Carboxylase 1 Antibody

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

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 265	Source/Isotype: Rabbit	UniProt ID: #Q13085	Entrez-Gene Id: 31
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Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 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 1 Antibody detects endogenous levels of total acetyl-CoA carboxylase 1 protein and does not cross-react with acetyl-CoA carboxylase 2. Immunofluorescence data indicate that the antibody is more reactive to rodent than human proteins.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human acetyl-CoA carboxylase 1 protein. 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 (ACC α) form is primarily expressed in lipogenic tissues, while 280 kDa ACC2 (ACC β) 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"> 1. Castle, J.C. et al. (2009) <i>PLoS One</i> 4, e4369. 2. Kreuz, S. et al. (2009) <i>Diabetes Metab Res Rev</i> 25, 577-86. 3. Ha, J. et al. (1994) <i>J Biol Chem</i> 269, 22162-8. 4. Abu-Elheiga, L. et al. (2001) <i>Science</i> 291, 2613-6. 5. Levert, K.L. et al. (2002) <i>J Biol Chem</i> 277, 16347-50. 	

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 IP: Immunoprecipitation
Cross-Reactivity Key	H: Human M: Mouse R: Rat
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