

#2283 Store at -20°C

SCD1 (R347) Antibody



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Applications: WB, IF-IC	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 37	Source: Rabbit	UniProt ID: #O00767	Entrez-Gene Id: 6319
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Product Usage Information	Application Western Blotting Immunofluorescence (Immunocytochemistry)	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	SCD1 (R347) Antibody detects endogenous levels of total SCD1 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding R347 of human SCD1. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Stearoyl-CoA desaturase 1 (SCD1) is a key lipogenic enzyme found in the endoplasmic reticulum that catalyzes the conversion of palmitoyl-CoA and stearoyl-CoA to palmitoleoyl-CoA (16:1) and oleoyl-CoA (18:1) (1-3). Palmitoleate and oleate are the major components of triglycerides, membrane phospholipids, and cholesterol esters (1). SCD1-knockout mice show improved insulin sensitivity and reduced body fat (1). Disruption of SCD1 in mouse brown adipose tissue strengthens insulin signaling and results in increased translocation of Glut4 to the plasma membrane and enhanced uptake of glucose (4). Furthermore, SCD1 is essential for the onset of diet-induced body weight gain (1) and insulin resistance in the liver (5).	
Background References	1. Ntambi, J.M. et al. (2002) <i>Proc. Natl. Acad. Sci. USA</i> 99, 11482-11486. 2. Kato, H. et al. (2006) <i>J. Cell. Sci.</i> 119, 2342-2353. 3. Ozols, J. (1997) <i>Mol. Biol. Cell</i> 8, 2281-2290. 4. Rahman, S.M. et al. (2005) <i>Am. J. Physiol. Endocrinol. Metab.</i> 288, E381-387. 5. Gutiérrez-Juárez, R. et al. (2006) <i>J. Clin. Invest.</i> 116, 1686-1695.	

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	WB: Western Blotting IF-IC: Immunofluorescence (Immunocytochemistry)
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus 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 GP: Guinea Pig Rab: rabbit All: all species expected
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