

AceCS1 (D19C6) Rabbit mAb

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

Applications W, IP	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 78 kDa	Isotype Rabbit IgG**
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Background: Cytoplasmic acetyl-CoA synthetase (AceCS1) catalyzes the conversion of acetate and CoA to acetyl-CoA (1, 2). Acetyl-CoA synthesized by AceCS1 is used for fatty acid and lipid biosynthesis (1, 2). Studies suggest that this enzyme is regulated by sterol regulatory element-binding proteins (2). It was also shown that this enzyme is acetylated by protein acetyltransferases in cells (3, 4). SIRT1 deacetylates this enzyme at Lys661 resulting in its activation and the increase of fatty acid synthesis (3, 4).

Specificity/Sensitivity: AceCS1 (D19C6) Rabbit mAb detects endogenous levels of total cytoplasmic acetyl-CoA synthetase (AceCS1).

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human cytoplasmic acetyl-CoA synthetase (AceCS1).

Background References:

- (1) Ikeda, Y. et al. (2001) *J Biol Chem* 276, 34259–69.
- (2) Luong, A. et al. (2000) *J Biol Chem* 275, 26458–66.
- (3) Hallows, W.C. et al. (2006) *Proc Natl Acad Sci U S A* 103, 10230–5.
- (4) Schwer, B. and Verdin, E. (2008) *Cell Metab* 7, 104–12.

Entrez-Gene ID #55902
Swiss-Prot Acc. #Q9NR19

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.**

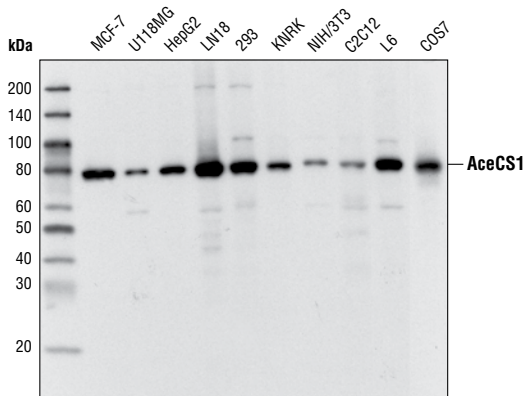
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

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.



Western blot analysis of extracts from various cell types using AceCS1 (D19C6) 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.

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.