SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I

#6224 Store at -20°C

☑ 10 µM in 300 µl
(100 transfections)

Cell Signaling TECHNOLOGY®

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

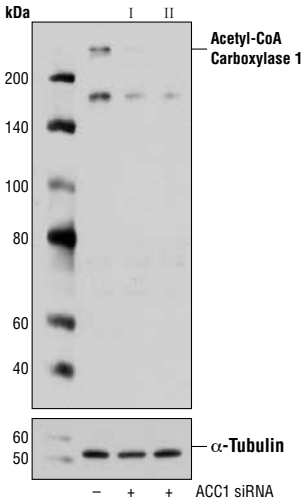
Species Cross-Reactivity: H

Description: SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit Acetyl-CoA Carboxylase 1 expression using RNA interference, a method whereby gene expression can be selectively silenced through the delivery of double stranded RNA molecules into the cell. All SignalSilence® siRNA products from CST are rigorously tested in-house and have been shown to reduce protein expression by western analysis.

Background: Acetyl-CoA carboxylase (ACC) catalyzes the pivotal step of the fatty acid synthesis pathway. The 265 kDa ACCα (ACC1) is the predominant isoform found in liver, adipocytes, and mammary gland, while the 280 kDa ACCβ (ACC2) is the major isoform in skeletal muscle and heart (1). Phosphorylation by AMPK at Ser79 or by PKA at Ser1200 inhibits the enzymatic activity of ACC (2). ACC is a potential target of anti-obesity drugs (3,4).

Directions for Use: CST recommends transfecting with 100 nM Acetyl-CoA Carboxylase 1 siRNA I 48 to 72 hours prior to cell lysis. For transfection procedure, follow protocol provided by the transfection reagent manufacturer. Please feel free to contact CST with any questions on use.

Quality Control: Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.



Western blot analysis of extracts from HeLa cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I (+) or SignalSilence® Acetyl-CoA Carboxylase 1 siRNA II #6237 (+), using Acetyl-CoA Carboxylase 1 Antibody #4190 and α-Tubulin (11H10) Rabbit mAb #2125. The Acetyl-CoA Carboxylase 1 antibody confirms silencing of Acetyl-CoA Carboxylase 1 expression while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #31
Swiss-Prot Acc. #Q13085

Storage: Acetyl-CoA Carboxylase 1 siRNA I is supplied in RNAse-free water. *Aliquot and store at -20°C.*

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Ruderman, N.B. et al. (1999) *Am. J. Physiol.* 276, E1-E18.

(2) Ha, J. et al. (1994) *J. Biol. Chem.* 269, 22162-22168.

(3) Abu-Elheiga, L. et al. (2001) *Science* 291, 2613-2616.

(4) Levert, K.L. et al. (2002) *J. Biol. Chem.* 277, 16347-16350.

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.