

SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I (Mouse Specific)

✓ 10 µM in 300 µl
(100 transfections)



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

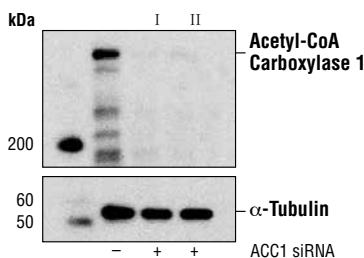
Species Cross-Reactivity: M

Description: SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I (Mouse Specific) 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 target protein expression by western analysis.

Background: Acetyl-CoA carboxylase (ACC) catalyzes the pivotal step of the fatty acid synthesis pathway. The 265 kDa ACC α (ACC1) is the predominant isoform found in liver, adipocytes, and mammary gland, while the 280 kDa ACC β (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 transfection with 100 nM SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I (Mouse Specific) 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 NIH/3T3 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® Acetyl-CoA Carboxylase 1 siRNA I (Mouse Specific) (+) or SignalSilence® Acetyl-CoA Carboxylase 1 siRNA II (Mouse Specific) #6398 (+), using Acetyl-CoA Carboxylase 1 Antibody #4190 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). 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 #107476
Swiss-Prot Acc. #Q5SWU9

Storage: Acetyl-CoA Carboxylase 1 siRNA I (Mouse Specific) 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.