

SignalSilence® FoxO3a 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, (R)

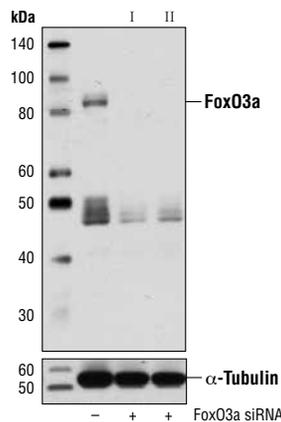
Description: SignalSilence® FoxO3a siRNA I (Mouse Specific) from Cell Signaling Technology (CST) allows the researcher to specifically inhibit FoxO3a expression using RNA interference, a method whereby gene expression can be selectively silenced through the delivery of double stranded RNA molecules into 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: Forkhead box (Fox) proteins are a family of evolutionarily conserved transcription factors defined by the presence of a winged helix DNA binding domain called a Forkhead box (1). In humans, there are over 40 known Fox protein family members, divided into 19 subfamilies, which have evolved to regulate gene transcription in diverse and highly specialized biological contexts throughout animal development (2). Mutations that disrupt the expression of Fox gene family members have consequently been implicated in a broad array of human disorders, including immunological dysfunction, infertility, speech/language disorders, and cancer (3,4).

Specificity/Sensitivity: FoxO3a siRNA I (Mouse Specific) inhibits mouse and rat FoxO3a expression.

Directions for Use: CST recommends transfection with 100 nM SignalSilence® FoxO3a 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 C2C12 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® FoxO3a siRNA I (Mouse Specific) (+), or SignalSilence® FoxO3a siRNA II (Mouse Specific) #8702 (+), using FoxO3a (75D8) Rabbit mAb #2497 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). The FoxO3a (75D8) Rabbit mAb confirms silencing of FoxO3a expression, while the α -Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #56484
Swiss-Prot Acc. #Q9WVH4

Storage: FoxO3a 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) Myatt, S.S. and Lam, E.W. (2007) *Nat Rev Cancer* 7, 847-59.
- (2) Jackson, B.C. et al. (2010) *Hum Genomics* 4, 345-52.
- (3) Hannehalli, S. and Kaestner, K.H. (2009) *Nat Rev Genet* 10, 233-40.
- (4) Benayoun, B.A. et al. (2011) *Trends Genet*, Epub ahead of print.