SignalSilence® RXRα siRNA I

#6348 Store at -20°C

☑ 10 µM in 300 µl
(100 transfections)

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 02/10/16

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

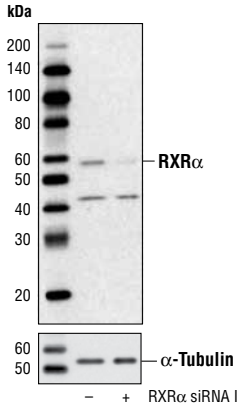
Species Cross-Reactivity: H

Description: SignalSilence® RXRα siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit RXRα 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: The human retinoid X receptors (RXRs) are encoded by three distinct genes (*RXR*α, *RXR*β, and *RXR*γ) and bind selectively and with high affinity to the vitamin A derivative, 9-*cis*-retinoic acid. RXRs are type-II nuclear hormone receptors that are largely localized to the nuclear compartment independent of ligand binding. Nuclear RXRs form heterodimers with nuclear hormone receptor subfamily 1 proteins, including thyroid hormone receptor, retinoic acid receptors, vitamin D receptor, peroxisome proliferator-activated receptors, liver X receptors and farnesoid X receptor (1). Since RXRs heterodimerize with multiple nuclear hormone receptors, they play a central role in transcriptional control of numerous hormonal signaling pathways by binding to *cis*-acting response elements in the promoter/enhancer region of target genes (2).

Directions for Use: CST recommends transfection with 100 nM RXRα 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 (-) or SignalSilence® RXRα siRNA I (+) using RXRα Antibody #5388 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The RXRα Antibody confirms specificity of RXRα siRNA I, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #6256
Swiss-Protein Acc. #P19793

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

Background References:

(1) Gronemeyer, H. et al. (2004) *Nat Rev Drug Discov* 3, 950-64.

(2) Mangelsdorf, D.J. et al. (1992) *Genes Dev* 6, 329-44.

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.