

Signal Silence® RSK1 siRNA I

✓ 10 µM 300 µl
(100 transfections)



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

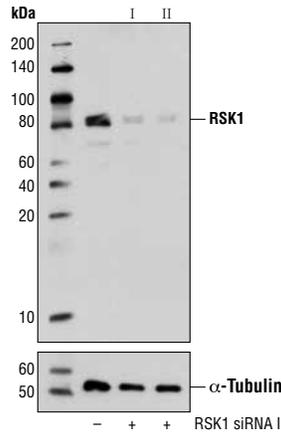
Species Cross-Reactivity: H

Description: Signal Silence® RSK1 siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit RSK1 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 Signal Silence® siRNA products from CST are rigorously tested in-house and have been shown to reduce protein expression by western analysis.

Background: The 90 kDa ribosomal S6 kinases (RSK1-4) are a family of widely expressed serine/threonine kinases characterized by two nonidentical, functional kinase domains (1) and a carboxy-terminal docking site for extracellular signal-regulated kinases (ERKs) (2). Several sites both within and outside of the RSK kinase domain, including Ser380, Thr359, Ser363, and Thr573, are important for kinase activation (3). RSK1-3 are activated via coordinated phosphorylation by MAPKs, by autophosphorylation, and by phosphoinositide-3-OH kinase (PI3K) in response to many growth factors, polypeptide hormones, and neurotransmitters (3).

Directions for Use: CST recommends transfection with 100 nM RSK1 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 293 cells, transfected with 100 nM Signal Silence® Control siRNA (Unconjugated) #6568 (-), Signal Silence® RSK1 siRNA I (+) or Signal Silence® RSK1 siRNA II #6313 (+), using RSK1 Antibody #9333 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The RSK1 Antibody confirms silencing of RSK1 expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #6195
Swiss-Prot Acc. #Q15418

Storage: RSK1 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) Fisher, T.L. and Blenis, J. (1996) *Mol Cell Biol* 16, 1212-9.
- (2) Smith, J.A. et al. (1999) *J Biol Chem* 274, 2893-8.
- (3) Dalby, K.N. et al. (1998) *J Biol Chem* 273, 1496-505.