

SignalSilence® Survivin siRNA II

✓ 10 µM in 300 µl (100 Transfections)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Species Cross-Reactivity: H, (Dg)

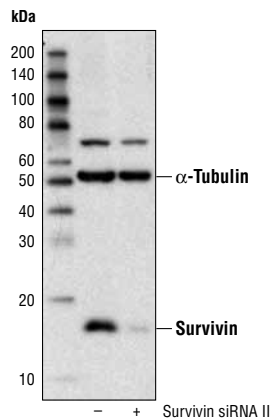
Description: SignalSilence® Survivin siRNA II from Cell Signaling Technology (CST) allows the researcher to specifically inhibit survivin expression using RNA interference, a method whereby gene expression can be selectively silenced through the delivery of double stranded RNA molecules into the cell.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

Background: Survivin is a 16 kDa anti-apoptotic protein highly expressed during fetal development and cancer cell malignancy (1). Survivin binds and inhibits caspase-3, controlling the checkpoint in the G2/M-phase of the cell cycle through inhibiting apoptosis and promoting cell division (2,3). This regulatory process requires the phosphorylation of survivin at Thr34 by p34 cdc2 kinase (4). Gene targeting using a Thr34 phosphorylation-defective survivin mutant, as well as antisense survivin, has been shown to inhibit tumor growth (5,6).

Directions for Use: CST recommends transfection with 100 nM Survivin siRNA II 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.

Specificity/ Sensitivity: Survivin siRNA II will inhibit human and dog Survivin expression.



Western blot analysis of extracts from HeLa cells, transfected with 100 nM SignalSilence® Control siRNA (Fluorescein Conjugate) #6201 (-) or SignalSilence® Survivin siRNA II (+), using Survivin (71G4B7E) Rabbit mAb #2808 and α-Tubulin (11H10) Rabbit mAb #2125. Survivin (71G4B7E) Rabbit mAb confirms silencing of survivin expression and α-Tubulin (11H10) Rabbit mAb is used to control for loading and specificity of survivin siRNA.

Entrez-Gene ID #332
Swiss-Prot Acc. #015392

Storage: Survivin siRNA II 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) Reed, J.C. and Reed, S.I. (1999) *Nature Cell Biol.* 1, 199–200.
- (2) Li, F. et al. (1998) *Nature* 396, 580–584.
- (3) Li, F. et al. (1999) *Nat. Cell Biol.* 1, 461–466.
- (4) O'Connor, D.S. et al. (2000) *Proc. Natl. Acad. Sci. USA* 97, 13103–13107.
- (5) Olie, R.A. et al. (2000) *Cancer Res.* 60, 2805–2809.
- (6) Grossman, D. et al. (2001) *Proc. Natl. Acad. Sci. USA* 98, 635–640.