#6550 Store at -20°C

SignalSilence® XIAP siRNA II

☑ 10 µM in 300 µl
(100 Transfections)

Cell Signaling TECHNOLOGY®

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

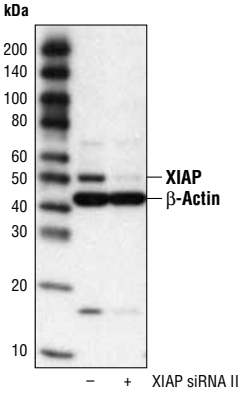
Species Cross-Reactivity: H, M, R

Description: SignalSilence® XIAP siRNA II from Cell Signaling Technology (CST) allows the researcher to specifically inhibit XIAP 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: The inhibitor of apoptosis protein (IAP) family consists of an evolutionarily conserved group of apoptosis inhibitors containing a conserved 70 amino acid BIR (baculovirus inhibitor repeat) domain (1,2). Human members of the family include c-IAP1, c-IAP2, XIAP, surivivin, livin and NAIP. Overexpression of IAP family members, particularly survivin and livin, in cancer cell lines and primary tumors suggest an important role for these proteins in cancer progression (3-5). In general, the IAP proteins function through direct interactions to inhibit the activity of several caspases, including caspase-3, caspase-7 and caspase-9 (5,6). In addition, binding of IAP family members to the mitochondrial protein Smac blocks its interaction with caspase-9, thereby allowing the processing and activation of the caspase (7).

Directions for Use: CST recommends transfection with 100 nM XIAP siRNA II. Decreased XIAP expression was seen 48 to 72 hours post-transfection. 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 (Fluorescein Conjugate) #6201 (-) or SignalSilence® XIAP siRNA II (+), using XIAP Antibody #2042 and β-Actin Antibody #4967. The XIAP antibody confirms silencing of XIAP expression, while the β-Actin Antibody is used to control for loading and specificity of XIAP siRNA.

Entrez-Gene ID #331
Swiss-Prot Acc. #P98170

Storage: XIAP 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) Deveraux, Q.L. and Reed, J.C. (1999) *Genes Dev* 13, 239–52.

(2) Deveraux, Q.L. et al. (1998) *EMBO J* 17, 2215–23.

(3) Altieri, D.C. et al. (1999) *Lab Invest* 79, 1327–33.

(4) Tamm, I. et al. (2000) *Clin Cancer Res* 6, 1796–803.

(5) Kasof, G.M. and Gomes, B.C. (2001) *J Biol Chem* 276, 3238–46.

(6) Deveraux, Q.L. et al. (1997) *Nature* 388, 300–4.

(7) Deveraux, Q.L. et al. (1998) *EMBO J* 17, 2215–23.

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.