

#6321 Store at -20°C

# SignalSilence® Bax siRNA I



✓ 10 µM in 300 µl (50-100 Transfections)

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

### Species Cross-Reactivity: H, M, R

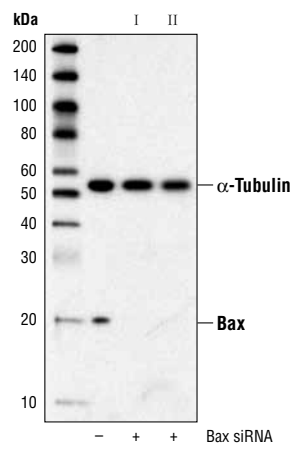
**Description:** SignalSilence® Bax siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit Bax expression using RNA interference, a method whereby gene expression can be selectively silenced through the delivery of double stranded RNA molecules into the cell. All SignalSilence®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

**Background:** Bax is a key component for cellular induced apoptosis through mitochondrial stress (1). Upon apoptotic stimulation, Bax forms oligomers and translocates from the cytosol to the mitochondrial membrane (2). Through interactions with pore proteins on the mitochondrial membrane, Bax increases the membrane's permeability, which leads to the release of cytochrome c from mitochondria, activation of caspase-9 and initiation of the caspase activation pathway for apoptosis (3,4).

Bax expression was effectively reduced in T lymphocytes by RNA interference, demonstrating the dependence on Bax to trigger the release of AIF from the mitochondria during apoptosis (5).

**Directions for Use:** CST recommends transfection with 100 nM Bax siRNA I. Decreased Bax expression seen 24 hours post-transfection. See Protocol for transfection procedure.

**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 (-), SignalSilence® Bax siRNA I (+) or SignalSilence® Bax siRNA II #6514 (+), using Bax Antibody #2772 and α-Tubulin (11H10) Rabbit mAb #2125. The Bax Antibody confirms silencing of Bax expression and α-Tubulin (11H10) Rabbit mAb is used to control for loading and specificity of Bax siRNA.

Entrez-Gene ID #581  
Swiss-Prot Acc. #Q07812

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

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

### Background References:

- (1) Wei, M.C. et al. (2001) *Science* 292, 727-730.
- (2) Jurgensmeier, J.M. et al. (1998) *Proc. Natl. Acad. Sci. USA* 95, 4997-5002.
- (3) Narita, M. et al. (1998) *Proc. Natl. Acad. Sci. USA* 95, 14681-14686.
- (4) Marzo, I. et al. (1998) *Science* 281, 2027-2031.
- (5) Bidere, N. et al. (2003) *J. Biol. Chem.* 278(33), 31401-31411.

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**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.