

#9404 Store at -20°C

# SignalSilence® Stat6 siRNA II



✓ 10µM in 300 µl (3 nmol)

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

New 07/12

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

### Species Cross-Reactivity: H, M, (R, Mk)

**Description:** SignalSilence® Stat6 siRNA II from Cell Signaling Technology (CST) allows the researcher to specifically inhibit Stat6 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.

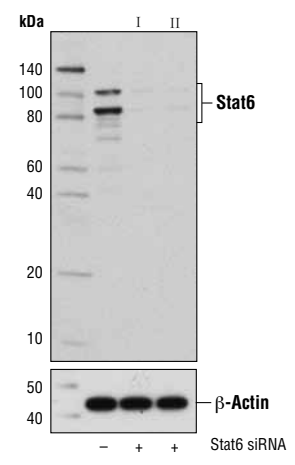
**Background:** Upon activation by Janus kinases, Stat6 translocates to the nucleus where it regulates cytokine-induced gene expression. Stat6 is activated via phosphorylation at Tyr641 and is required for responsiveness to IL-4 and IL-13 (1-4). In addition, Stat6 is activated by IFN-α in B cells, where it forms transcriptionally active complexes with Stat2 and p48 (5,6). Protein phosphatase 2A is also involved in regulation of IL-4-mediated Stat6 signaling (7).

**Specificity/Sensitivity:** SignalSilence® Stat6 siRNA II inhibits human, mouse, rat, and monkey Stat6 expression.

**Directions for Use:** CST recommends transfection with 100 nM SignalSilence® Stat6 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.

Each vial contains the equivalent of 100 transfections, which corresponds to a final siRNA concentration of 100 nM per transfection in a 24-well plate with a total volume of 300 µl per well.

**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 L-929 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® Stat6 siRNA I (Mouse Specific) #9396 (+), or SignalSilence® Stat6 siRNA II (+), using Stat6 (D3H4) Rabbit mAb #5397 (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower). The Stat6 (D3H4) Rabbit mAb confirms silencing of Stat6 expression, while the β-Actin (D6A8) Rabbit mAb is used as a loading control.

Entrez-Gene ID #20852  
Swiss-Prot Acc. #P52633

**Storage:** Stat6 siRNA II 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) Nelms, K. et al. (1999) *Ann. Rev. Immunol.* 17, 701-738.
- (2) Malabarba, M.G. et al. (1996) *Biochem. J.* 319, 865-872.
- (3) Hou, J. et al. (1994) *Science* 265, 1701-1706.
- (4) Quelle, F.W. et al. (1995) *Mol. Cell. Biol.* 15, 3336-3343.
- (5) Takeda, K. et al. (1996) *Nature* 380, 627-630.
- (6) Gupta, S. et al. (1999) *J. Immunol.* 163, 3834-3841.
- (7) Woetmann, A. et al. (2003) *J. Biol. Chem.* 278, 2787-2791.

© 2012 Cell Signaling Technology, Inc. SignalSilence®, CST™, and Cell Signaling Technology® are trademarks of Cell Signaling Technology, Inc.

**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.