

Signal Silence® Stat6 siRNA I

✓ 10 µM in 300 µl
(100 transfections)



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rev. 02/10/16

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

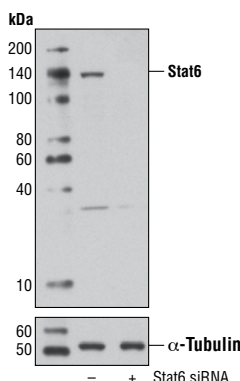
Species Cross-Reactivity: H

Description: Signal Silence® Stat6 siRNA I 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 Signal Silence® 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 cell lines, 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).

Directions for Use: CST recommends transfection with 100 nM Stat6 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 HeLa cells, transfected with 100 nM Signal Silence® Control siRNA (Unconjugated) #6568 (-) or Signal Silence® Stat6 siRNA I (+), using Stat6 Antibody #9362 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The Stat6 Antibody confirms silencing of Stat6 expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #6778
Swiss-Prot Acc. #P42226

Storage: Stat6 siRNA I is supplied in RNase-free water. Aliquot and store at -20°C.

Please visit www.cellsignaling.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.