

#6274 Store at -20°C

# SignalSilence® IRF-3 siRNA I



✓ 10 µM in 300 µl (100 transfections)

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

rev. 02/09/16

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

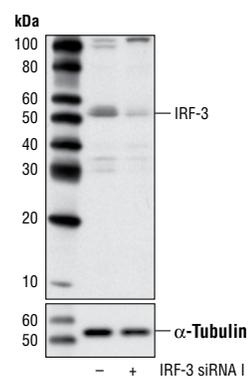
### Species Cross-Reactivity: H

**Description:** SignalSilence® IRF-3 siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit IRF-3 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:** Interferon regulatory factors (IRFs) comprise a family of transcription factors that function within the Jak/Stat pathway to regulate interferon (IFN) and IFN-inducible gene expression in response to viral infection (1). IRFs play an important role in pathogen defense, autoimmunity, lymphocyte development, cell growth and susceptibility to transformation. The IRF family includes nine members: IRF-1, IRF-2, ISGF3γ/p48, IRF-3, IRF-4 (Pip/LSIRF/ICSAT), IRF-5, IRF-6, IRF-7 and IRF-8/ICSBP. All IRF proteins share homology in their amino-terminal DNA binding domains. IRF family members regulate transcription through interactions with proteins that share similar DNA binding motifs, such as IFN-stimulated response elements (ISRE), IFN consensus sequences (ICS) and IFN regulatory elements (IRF-E) (2).

**Directions for Use:** CST recommends transfection with 100 nM IRF-3 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 K562 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-) or SignalSilence® IRF-3 siRNA I (+), using IRF-3 (D83B9) Rabbit mAb #4302 and α-Tubulin (11H10) Rabbit mAb #2125. The IRF-3 (D83B9) Rabbit mAb confirms silencing of IRF-3 expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #3661  
Swiss-Prot Acc. #Q14653

**Storage:** IRF-3 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) Taniguchi, T. et al. (2001) *Annu Rev Immunol* 19, 623-55.
  - (2) Honda, K. and Taniguchi, T. (2006) *Nat Rev Immunol* 6, 644-58.

© 2010 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.