Store at -20°C

#6412

SignalSilence® PARP siRNA II (Mouse Specific)

☑ 10µM in 300 µl
(100 transfections)

Cell Signaling TECHNOLOGY®

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

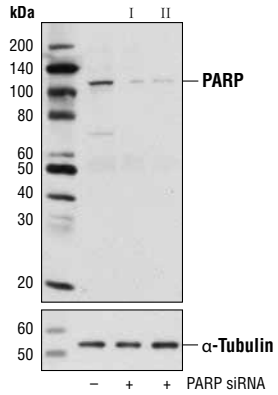
Species Cross-Reactivity: M

Description: SignalSilence® PARP siRNA II (Mouse Specific) from Cell Signaling Technology (CST) allows the researcher to specifically inhibit PARP 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: PARP, a 116 kDa nuclear poly (ADP-ribose) polymerase, appears to be involved in DNA repair in response to environmental stress (1). This protein can be cleaved by many ICE-like caspases *in vitro* (2,3) and is one of the main cleavage targets of caspase-3 *in vivo* (4,5). In human PARP, the cleavage occurs between Asp214 and Gly215, which separates the PARP amino-terminal DNA binding domain (24 kDa) from the carboxy-terminal catalytic domain (89 kDa) (2,4). PARP helps cells to maintain their viability; cleavage of PARP facilitates cellular disassembly and serves as a marker of cells undergoing apoptosis (6).

Directions for Use: CST recommends transfection with 100 nM SignalSilence® PARP siRNA II (Mouse Specific) 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 NIH/3T3 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® PARP siRNA I (Mouse Specific) #6409 (+), or SignalSilence® PARP siRNA II (Mouse Specific) (+) using PARP (46D11) Rabbit mAb #9532 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The PARP (46D11) Rabbit mAb confirms silencing of PARP expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #11545
Swiss-Prot Acc. #P11103

Storage: PARP siRNA II (Mouse Specific) 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) Satoh, M.S. and Lindahl, T. (1992) *Nature* 356, 356-358.

(2) Lazebnik, Y. A. et al. (1994) *Nature* 371, 346-347.

(3) Cohen, G.M. (1997) *Biochem. J.* 326, 1-16.

(4) Nicholson, D. W. et al. (1995) *Nature* 376, 37-43.

(5) Tewari, M. et al. (1995) *Cell* 81, 801-809.

(6) Oliver, F.J. et al. (1998) *J. Biol. Chem.* 273, 33533-33539.

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.