SignalSilence® NDP52 siRNA I

#8964 Store at -20°C

☑ 10 µM in 300 µl (3 nmol)

Cell Signaling TECHNOLOGY®

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

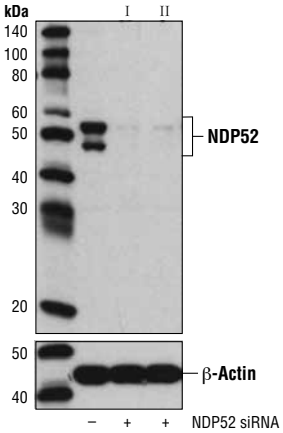
Species Cross-Reactivity: H, (Mk)

Description: SignalSilence® NDP52 siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit NDP52 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: NDP52 (CALCOCO2) is ubiquitously expressed and composed of an amino-terminal SKICH domain, followed by a coiled-coil domain, and two zinc finger domains (1). It has recently been reported to act as an autophagy receptor that binds cytosolic ubiquitinated bacteria, leading to autophagy activation and pathogen clearance (1-3). NDP52 binds ubiquitin through its zinc finger domain and simultaneously binds LC3, which directs the bacteria into autophagosomes. In addition, NDP52 interacts with Nap1 and SINTBAD to recruit TBK1 to ubiquitinated bacteria (1).

Directions for Use: CST recommends transfection with 100 nM SignalSilence® NDP52 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. 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 HeLa cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® NDP52 siRNA I (+), or SignalSilence® NDP52 siRNA II #9000 (+), using NDP52 Antibody #9036 (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower). The NDP52 Antibody confirms silencing of NDP52 expression, while the β-Actin (D6A8) Rabbit mAb is used as a loading control.

Entrez-Gene ID #10241
Swiss-Prot Acc. #Q13137

Storage: NDP52 siRNA I 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) Thurston, T.L. et al. (2009) *Nat Immunol* 10, 1215-21.

(2) Cemma, M. et al. (2011) *Autophagy* 7, 341-5.

(3) Mostowy, S. et al. (2011) *J Biol Chem* 286, 26987-95.

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.