Store at -20°C

#6357

SignalSilence® Caspase-10 siRNA I

☑ 10 µM in 300 µl
(100 transfections)

Cell Signaling TECHNOLOGY®

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

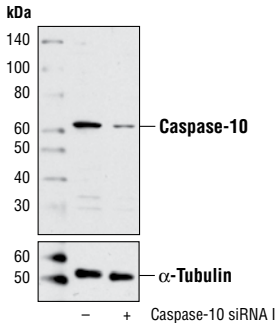
Species Cross-Reactivity: H

Description: SignalSilence® Caspase-10 siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit Caspase-10 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: Caspase-10 is a DED (death effector domain)-containing caspase and functions as an initiator caspase in Fas/TNF induced apoptosis (1). Four isoforms of caspase-10 have been identified: caspase-10a (Mch4), caspase-10b (FLICE2), caspase-10c and caspase-10d. They have the same prodomain but different mature large and small subdomains (2-4). Upon death ligand-receptor binding, caspase-10 is coupled to the multimeric Fas/TNF receptor complex via DED/FADD adaptor interaction (1-4). This complex processes procaspase-10 into a large active fragment and a small fragment. Cleaved caspase-10 further processes other caspase members, including caspase-3 and caspase-7, to initiate a caspase cascade, leading to apoptosis (3-6).

Directions for Use: CST recommends transfection with 100 nM Caspase-10 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 SignalSilence® Control siRNA (Unconjugated) #6568 (-) or SignalSilence® Caspase-10 siRNA I (+), using Caspase-10 Antibody #9752 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The Caspase-10 Antibody confirms silencing of Caspase-10 expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #843
Swiss-Prot Acc. #Q92851

Storage: Caspase-10 siRNA I is supplied in RNAse-free water. *Aliquot and store at -20ºC.*

Background References:

(1) Nunez, G. et al. (1998) *Oncogene* 17, 3237-3245.

(2) Ng, P. W. et al. (1999) *J. Biol. Chem.* 274, 10301-10308.

(3) Vincenz, C. and Dixit, V.M. (1997) *J. Biol. Chem.* 272, 6578-6583.

(4) Fernandez-Alnemri, T. et al. (1996) *Proc. Natl. Acad. Sci. USA* 93, 7464-7469.

(5) Srinivasula, S. M. et al. (1996) *Proc. Natl. Acad. Sci. USA* 93, 14486-14491.

(6) Wang, J. et al. (1999) *Cell* 98, 47-58.

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.