SignalSilence® FAK siRNA II

#6483 Store at -20°C

☑ 10 µM in 300 µl
(100 transfections)

Cell Signaling TECHNOLOGY®

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

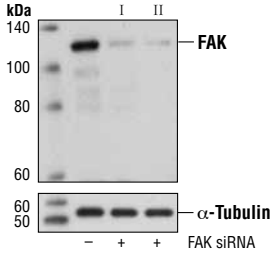
Species Cross-Reactivity: H

Description: SignalSilence® FAK siRNA II from Cell Signaling Technology (CST) allows the researcher to specifically inhibit FAK 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: Focal adhesion kinase (FAK) is a widely expressed cytoplasmic protein tyrosine kinase involved in integrin-mediated signal transduction. It plays an important role in the control of several biological processes, including cell spreading, migration, and survival (1). Activation of FAK by integrin clustering leads to autophosphorylation at Tyr397, which is a binding site for the Src family kinases PI3K and PLCγ (2-5). Recruitment of Src family kinases results in the phosphorylation of tyrosine residues 407, 576, and 577 in the catalytic domain, and tyrosine residues 871 and 925 in the carboxy-terminal region of FAK (6,7).

Directions for Use: CST recommends transfection with 100 nM FAK siRNA II 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 (-), SignalSilence® FAK siRNA I #6472 (+) or SignalSilence® FAK siRNA II (+), using FAK Antibody #3285 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The FAK Antibody confirms silencing of FAK expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #5747
Swiss-Prot Acc. #Q05397

Storage: FAK siRNA II is supplied in RNAse-free water. *Aliquot and store at -20ºC.*

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Parsons, J.T. et al. (2000) *Oncogene* 19, 5606-5613.
(2) Schaller, M.D. et al. (1994) *Mol. Cell. Biol.* 14, 1680-1688.
(3) Cobb, B.S. et al. (1994) *Mol. Cell. Biol.* 14, 147-155.
(4) Chen, H.C. et al. (1996) *J. Biol. Chem.* 271, 26329-26334.
(5) Zhang, X. et al. (1999) *Proc. Natl. Acad. Sci. USA* 96, 9021-9026.
(6) Calalb, M.B. et al. (1995) *Mol. Cell. Biol.* 15, 954-963.
(7) Schlaepfer, D.D. et al. (1994) *Nature* 372, 786-791.

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.