SignalSilence® PFKP siRNA I

#12649 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® PFKP siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit PFKP 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.

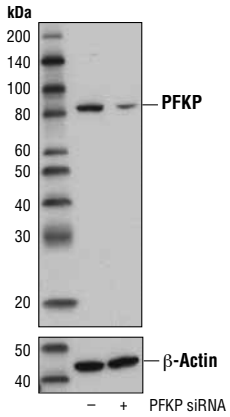
Background: Phosphofructokinase (PFK) catalyzes the phosphorylation of fructose-6-phosphate in glycolysis (1). There are three isozymes: muscle-type, liver-type, and platelet-type (2,3). Platelet-type phosphofructokinase (PFKP) is expressed in various cell types (4,5). Research studies have shown that genetic variations in PFKP are associated with individuals born small for gestational age that are prone to obesity and diabetes later in adulthood (6).

Specificity/Sensitivity: SignalSilence® PFKP siRNA I inhibits human and monkey PFKP expression.

Directions for Use: CST recommends transfection with 100 nM SignalSilence® PFKP 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 293T cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-) or SignalSilence® PFKP siRNA I (+), using PFKP (D2E5) Rabbit mAb #12746 (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower). The PFKP (D2E5) Rabbit mAb confirms silencing of PFKP expression, while the β-Actin (D6A8) Rabbit mAb is used as a loading control.

Entrez-Gene ID #5214
Swiss-Prot Acc. #Q01813

Storage: PFKP siRNA I 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) Mediavilla, D. et al. (2008) *J Biochem* 144, 235-44.
(2) Eto, K. et al. (1994) *Biochem Biophys Res Commun* 198, 990-8.
(3) Hannemann, A. et al. (2005) *Gene* 345, 237-47.
(4) Morrison, N. et al. (1992) *Hum Genet* 89, 105-6.
(5) Vora, S. (1983) *Isozymes Curr Top Biol Med Res* 11, 3-23.
(6) Morgan, A.R. et al. (2010) *BMC Med Genet* 11, 125.

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.