**SignalSilence® hnRNP A1 siRNA I**

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

### Species Cross-Reactivity: H (M, R, Mk)

**Description:** SignalSilence® hnRNP A1 siRNA I from Cell Signaling Technology (CST) allows the researcher to specifically inhibit hnRNP A1 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:** Heterogeneous nuclear ribonucleoprotein A1 (hnRNP A1) is a member of the hnRNP A/B family of related RNA binding proteins that bind pre-mRNA and are involved in the processing, metabolism, and transport of nuclear pre-mRNA transcripts. hnRNP A1 regulates the alternative splicing of c-Src and c-H-Ras (2.3) and modifies initiation of translation of the fibroblast growth factor 2 mRNA (4). hnRNP A1 expression level is elevated in many cancers; knockdown of hnRNP A1 leads to apoptosis in various cancer cells (5). Although predominantly nuclear, hnRNP A1 is continually transported from the nucleus to the cytoplasm where it disassociates from mRNA and is rapidly re-imported into the nucleus (6,7). hnRNP A1 binds to cis-acting repressive sequences (CRS) of HIV-1 to influence HIV-1 production (8,9). HIV-1 enhances hnRNP A1 to cis-acting repressive sequences (CRS) of HIV-1 to influence HIV-1 production (8,9). HIV-1 enhances hnRNP A1 expression and promotes the relocalization of hnRNP A1 to the cytoplasm (10).

**Specificity/Sensitivity:** SignalSilence® hnRNP A1 siRNA I inhibits human, mouse, rat, and monkey hnRNP A1 expression.

**Directions for Use:** CST recommends transfection with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-) or SignalSilence® hnRNP A1 siRNA I (+), using hnRNP A1 (D2H11) Rabbit mAb #8443 and α-Tubulin (11H10) Rabbit mAb is used as a loading control.

**Western blot analysis of extracts from HeLa cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-) or SignalSilence® hnRNP A1 siRNA I (+), using hnRNP A1 (D2H11) Rabbit mAb #8443 and α-Tubulin (11H10) Rabbit mAb conﬁrms silencing of hnRNP A1 expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.**

### Storage

hnRNP A1 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: