

**SUPPLEMENTARY FIG. S2.** 2'Fluoro (2'F) modification increases serum and cellular stability of RNAs. (**A**) Serum stability of 2'F and 2'OH RNAs. 5' triphosphate (5'ppp) 2'OH 10F and 5'ppp 2'F 10F aptamers were incubated in 10% fetal bovine serum at 37°C for 0, 5 min, 10 min, 1 h, 3 h, 6 h, 12 h, or 24 h and collected at each time point. RNAs were analyzed on 12% polyacrylamide gels. (**B**) Intracellular stability of 2'F and 2'OH RNAs. 5'ppp 2'OH 10F and 5'ppp 2'F 10F aptamers were transfected into WM266.4 cells. Total RNAs were isolated at 4, 8, 12, and 24 h after transfection. The presence of the 10F aptamer was determined using RT-PCR. PCR products were analyzed on 3% agarose gels. Actin was used as a control for RT-PCR. DF, DharmaFECT transfection reagent; RT-PCR, Reverse transcription polymerase chain reaction.