Supplemental Data

Fig.S1

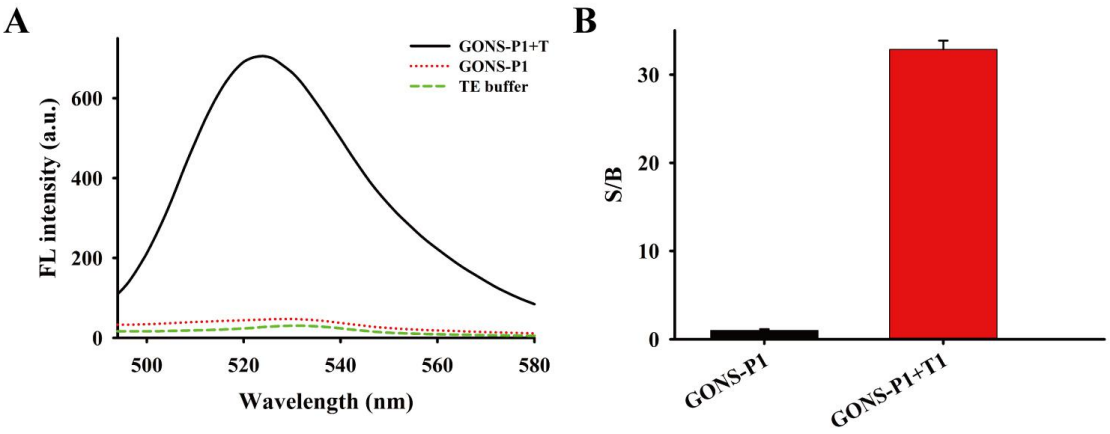

Fig.S1 (A) Fluorescence emission spectra of P1 (100nM) in the absence (red lines) and presence (black lines) T1 (500nM). The concentration of GONS was 15μg/mL，and the excitation wavelength was 450nm. (B) Comparisons of the signal-to-background ratio (S/B) of the fluorescent by a 33 fold of the GONS in the absence and presence of excess T1.

Fig.S2

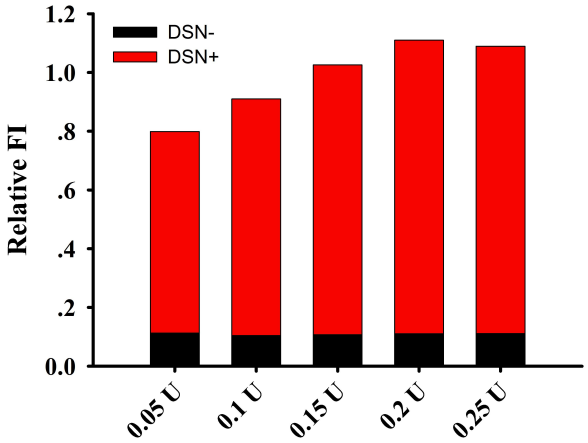

Fig.S2 The effect of the amount of DSN on the fluorescence response of the GONS/P1-DSN sensing system with 1nM T1 and 15μg/mL GONS.

Fig.S3

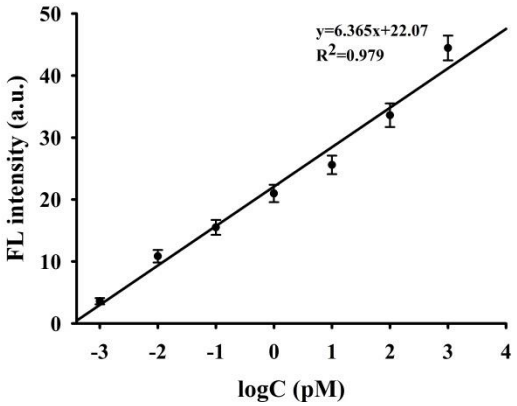

Fig.S3 The corresponding calibration plot of fluorescence intensity vs. lgC for the detection of mRNA-21 from 1fM to 1nM.

Fig.S4

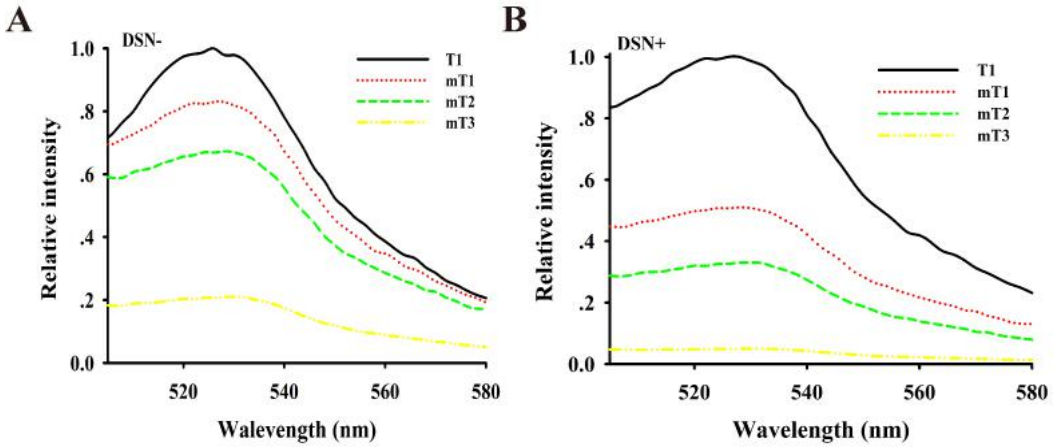

Fig.S4 (A, B) Fluorescence emission spectra of complementary target (T1) and mismatch targets (mT1, mT2, mT3) in the absence or presence DSN, respectively.

Fig.S5

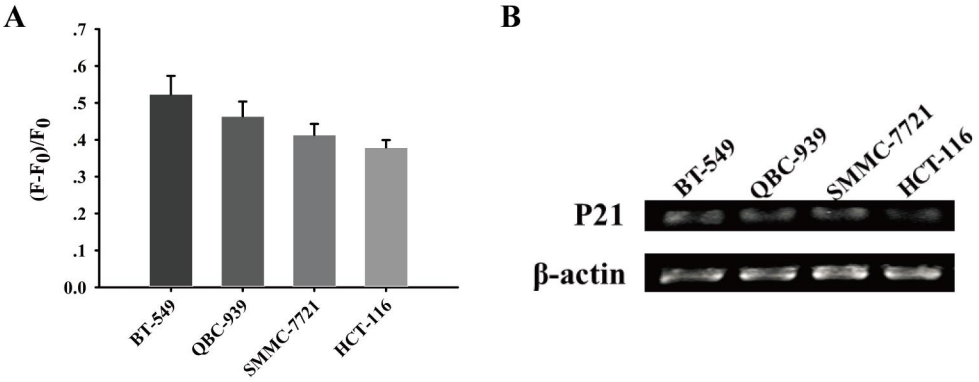

Fig.S5 Comparison of p21 mRNA expression levels in different tumor cell lines using GONS-P1-DSN sensing system. (A) Histogram of the relative fluorescence intensity [(F-F0)/F0] of the above four tumor cell lines. (B) Expression level of p21 mRNA in four tumor cell lines by gel electrophoresis.