Electronic supplementary information

A Homogeneous Fluorescence Sensing Platform with Water-soluble Carbon Nanoparticles for Detection of MicroRNA and Nuclease Activity

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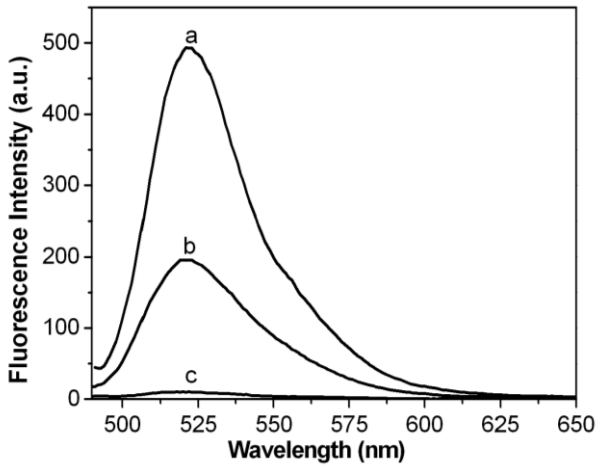

Fig. S1 Fluorescence emission spectra of FAM-P in the presence of (a) Tris-HCl buffer; (b) miRNA, CNPs and Tris-HCl buffer; (c) CNPs and Tris-HCl buffer. The concentrations of FAM-P, miRNA, and CNPs were 50 nmol l^{-1}, 200 nmol l^{-1}, and 2.0 μg ml^{-1}, respectively.

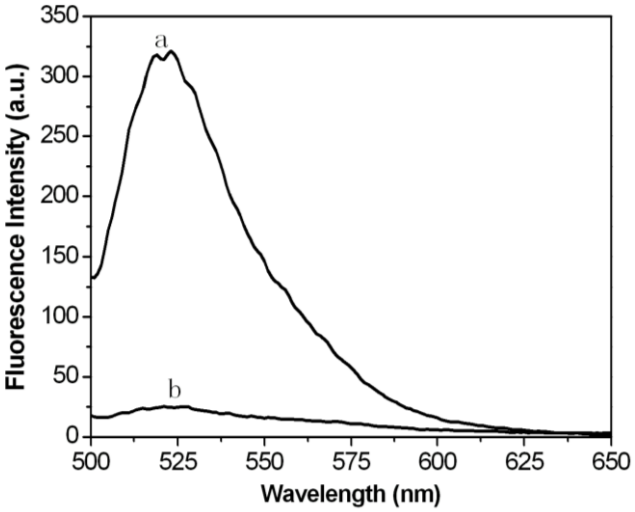

Fig. S2 Fluorescence emission spectra of FAM-P in the presence of (a) CNPs and miRNA target, (b) CNPs, miRNA target and RNase H after incubation at 37^{o}C for 30 min. The concentration of FAM-P, miRNA targets, RNase H and CNPs was 50 nmol l^{-1}, 50 nmol l^{-1}, 0.5 U and 7.5 μg ml^{-1}, respectively.

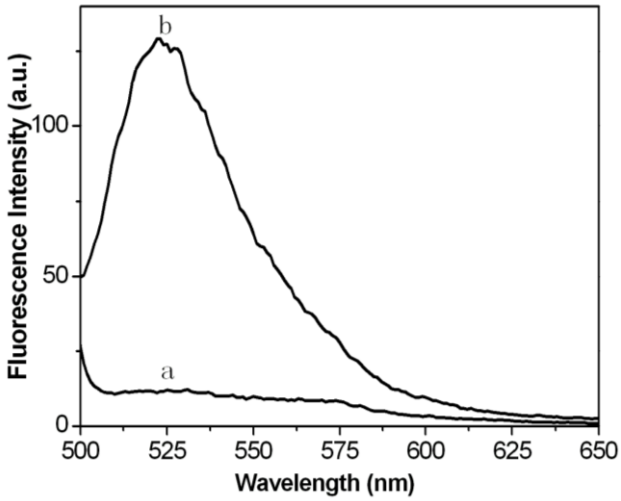

Fig. S3 Fluorescence emission spectra of FAM-P in the presence of (a) CNPs, (b) CNPs and DNase I after incubation at 37^{o}C for 60 min. The concentration of FAM-P, DNase I and CNPs was 50 nmol l^{-1}, 50 nmol l^{-1}, 0.06 U μl^{-1} and 7.5 μg ml^{-1}, respectively.