

Supporting Informations

Fig. S1. Fluorescence intensity of QD-aptamer ($5 \mu\text{mol L}^{-1}$) before and after adding GO ($200 \mu\text{g mL}^{-1}$) corresponding to different incubation times

Fig. S2. Fluorescence intensity of different GO concentrations (0, 3.125, 6.25, 12.5, 25, 50, 100, 200, 400 and $800 \mu\text{g mL}^{-1}$)

Fig. S3. Fluorescence intensity of different reaction systems (QD-aptamer, QD-Apt-GO, QD-Apt- β -LG-GO) at different GO concentrations (100, 200, 400 and $800 \mu\text{g mL}^{-1}$)

Fig. S4. Fluorescence intensity of the QD-Apt-GO system with different incubation times (0, 10, 20 and 30 min) after adding GO ($200 \mu\text{g mL}^{-1}$)

Fig. S5. Fluorescence intensity of the QD-Apt- β -LG-GO system with different incubation times (0, 10, 20 and 30 min) after adding the β -LG sample (100 mg L^{-1})

Fig. S6. Fluorescence intensity of QD-Apt-GO systems in four different molar ratios of QDs and aptamer (1:5 (■), 1:10 (●), 1:20 (▲), 1:40 (▼)) at five β -LG concentrations (0.78, 1.625, 6.25, 25 and 100 mg L^{-1})

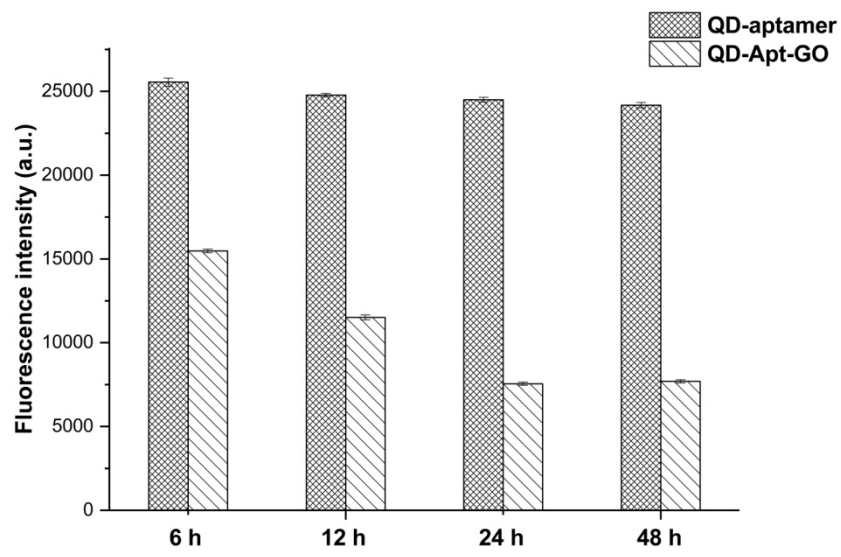


Fig. S1 Fluorescence intensity of QD-aptamer ($5 \mu\text{mol L}^{-1}$) before and after adding GO ($200 \mu\text{g mL}^{-1}$) corresponding to different incubation times

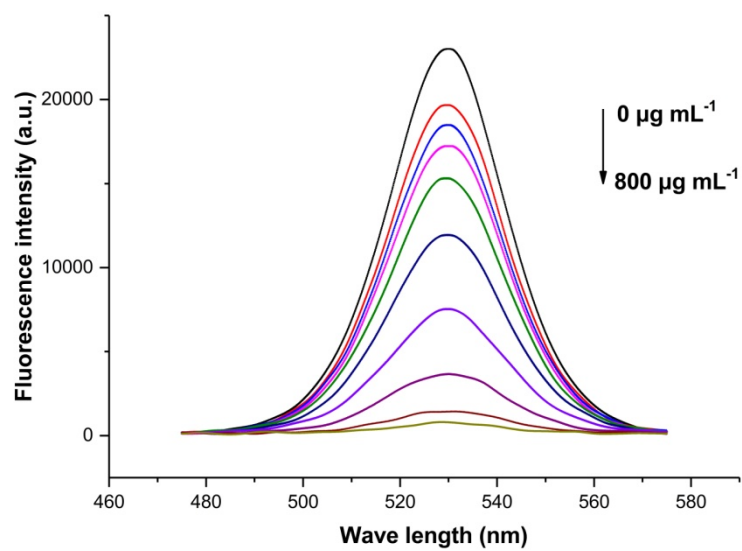


Fig. S2 Fluorescence intensity of different GO concentrations (0, 3.125, 6.25, 12.5, 25, 50, 100, 200, 400 and 800 $\mu\text{g mL}^{-1}$)

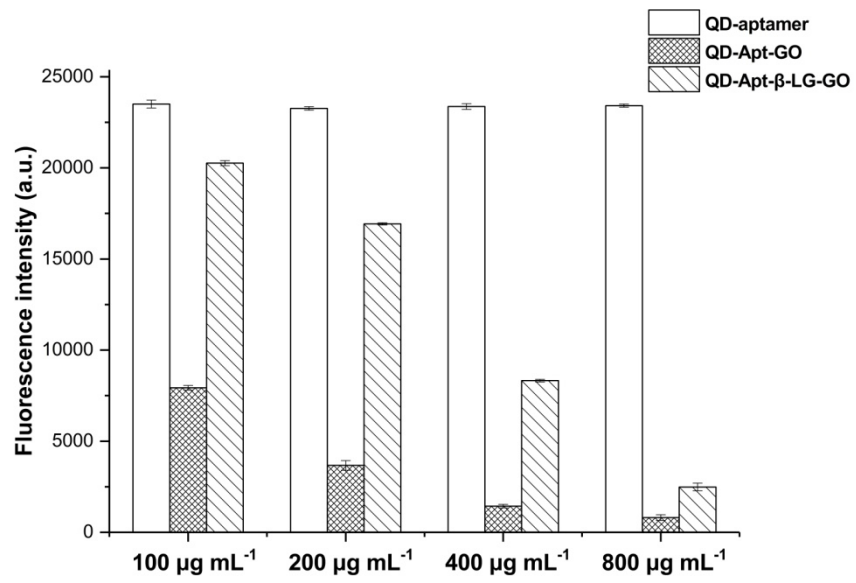


Fig. S3 Fluorescence intensity of different reaction systems (QD-aptamer, QD-Apt-GO, QD-Apt- β -LG-GO) at different GO concentrations (100, 200, 400 and 800 $\mu\text{g mL}^{-1}$)

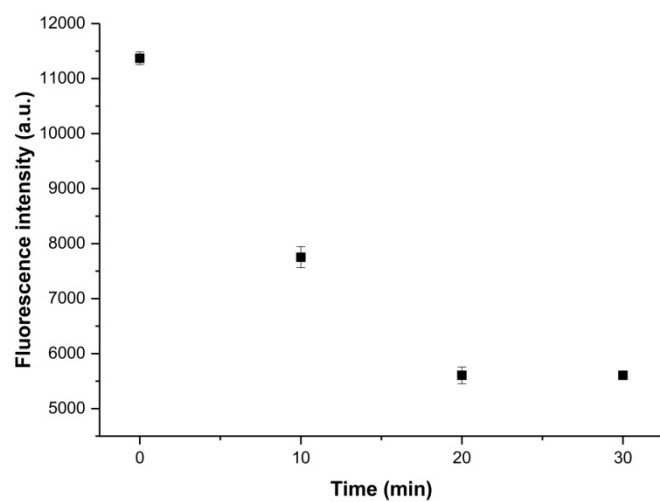


Fig. S4 Fluorescence intensity of the QD-Apt-GO system with different incubation times (0, 10, 20 and 30 min) after adding GO ($200 \mu\text{g mL}^{-1}$)

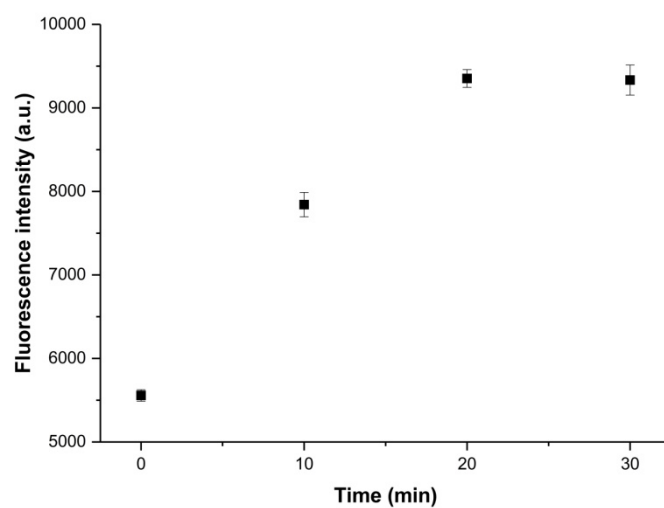


Fig. S5 Fluorescence intensity of the QD-Apt- β -LG-GO system with different incubation times (0, 10, 20 and 30 min) after adding the β -LG sample (100 mg L^{-1})

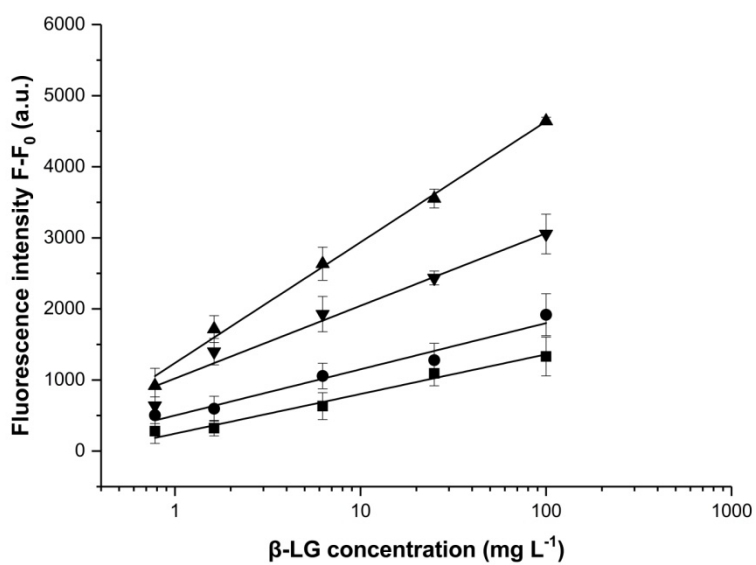


Fig. S6 Fluorescence intensity of QD-Apt-GO systems in four different molar ratios of QDs and aptamer (1:5 (■), 1:10 (●), 1:20 (▲), 1:40 (▼)) at five β -LG concentrations (0.78, 1.625, 6.25, 25 and 100 mg L^{-1})