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Supplementary Information

A Graphene-Based Biosensing Platform Based on Regulated Release of an Aptameric DNA Biosensor. *Sensors* 2015, *15*, 28244-28256

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Table S1. DNA oligonucleotides used in the study.

Name	Sequence (5′-3′)
FAM-labeled DNA	(FAM)-TCCAACCCGCCCTACCCAC***GCTGAGG*** *ACCTGGGGGAGTATTGCGGAGGAAGGT***CC**
CPDNA8	CGGGTTGG
CPDNA10	GGCGGGTTGG
CPDNA12	AGGGCGGGTTGG
CPDNA14	GTAGGGCGGGTTGG

The segments shown in bold-italic letters are the Nt.BbvCI recognition sequence and underlined-italic letters are the ATP aptamer sequence.

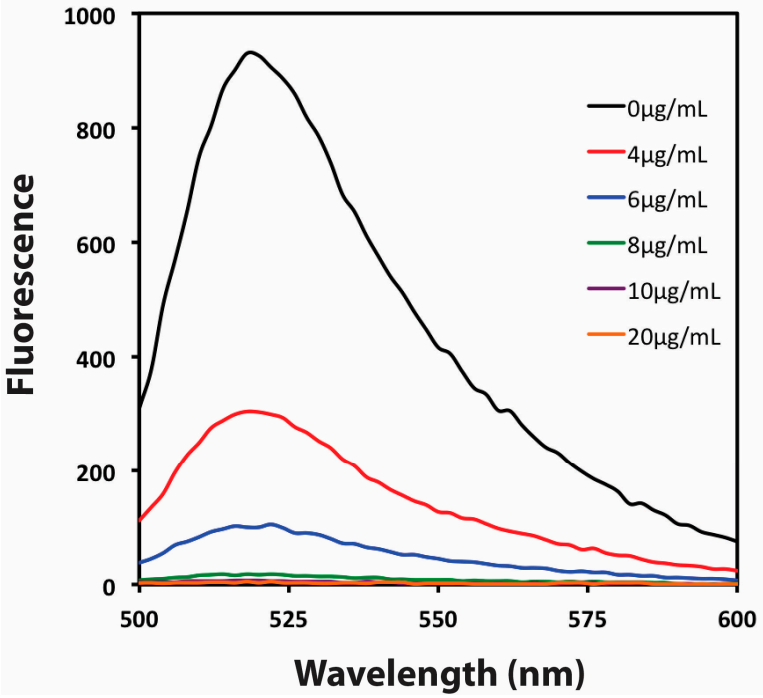

Figure S1. GO concentration testing for fluorescence quenching. FAM-labeled DNA biosensor (100 nM) was treated with different GO concentrations (0, 4, 6, 8, 10, 20 μg/mL). Fluorescence spectra were measured after 1 h incubation.

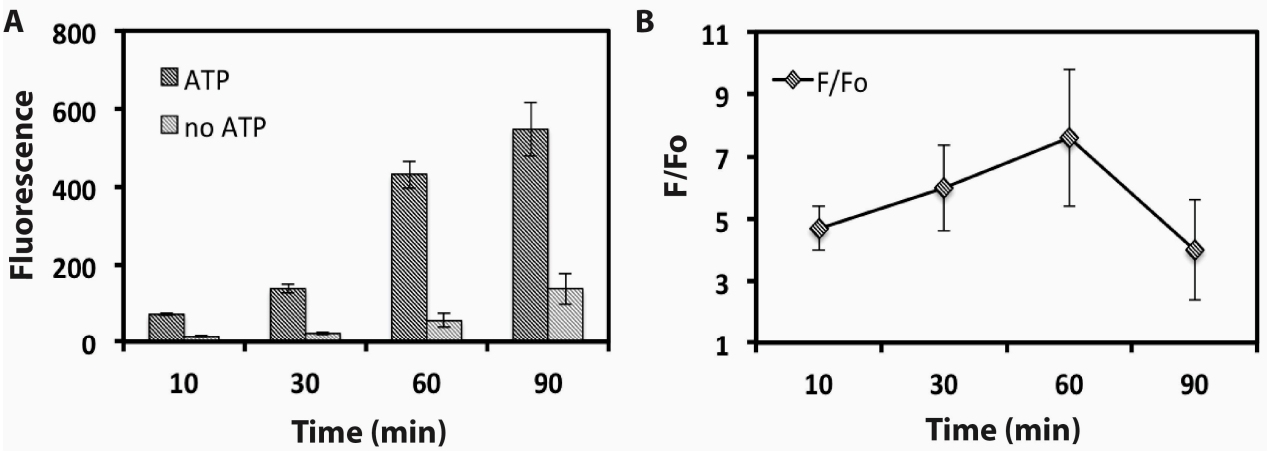

Figure S2. Time-dependent fluorescence responses. (**A**) The fluorescence *vs.* polymerization/nicking enzyme synergetic isothermal amplification time in the presence and absence of ATP; (**B**) F/F_0 *vs.* the polymerization/nicking enzyme synergetic isothermal amplification time, where F is the fluorescence reading in the presence of ATP and F_0 is the fluorescence reading in the absence of ATP. The ATP used in (**A**,**B**) is 500 μM. The error bar represents the standard deviation of three measurements.

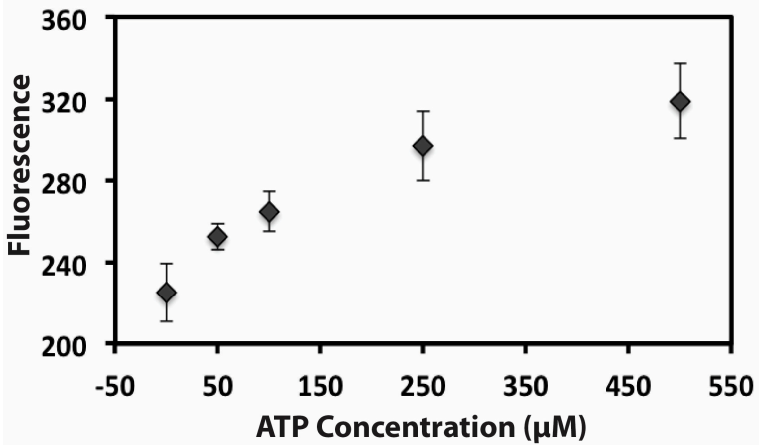

Figure S3. Fluorescence responses in real sample. The fluorescence responses for the biosensing system against ATP concentrations (0 μM, 50 μM, 100 μM, 250 μM, 500 μM respectively) in 10% human serum. The data are an average of three independent experiments.