Supporting Information

Sensitive Fluorescence Assay of Anthrax Protective Antigen with Two New DNA Aptamers and Their Binding Properties

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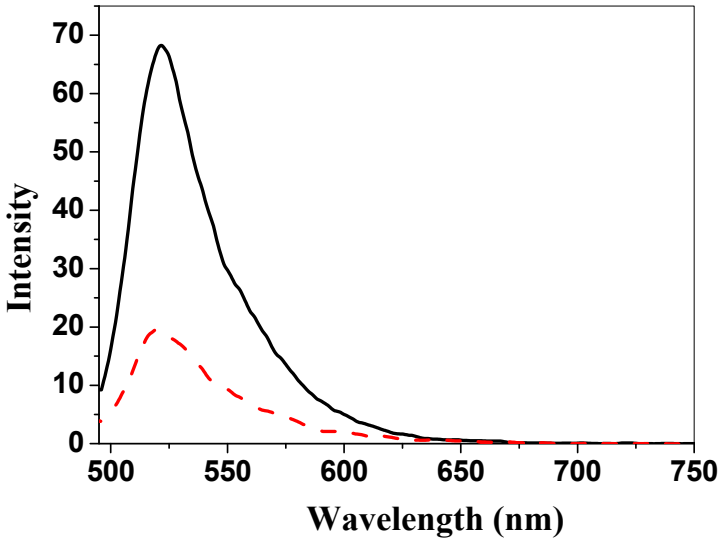


Figure S1. Fluorescence emission spectra (λ_{ex} = 480 nm) of OG in the presence of 40 nM **2** (solid) and **2**-PA (dashed). **2**-PA was prepared incubating 40 nM **2** with 60 nM PA for 5 min at 35 °C in HEPES (pH = 7.4). The fluorescence intensities are plotted in arbitrary units (au).

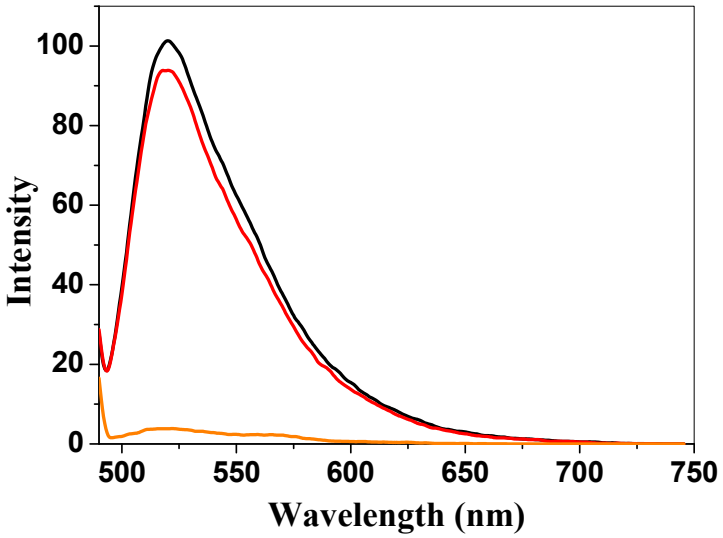


Figure S2. Emission spectra of OG with **1** (black), BSA (orange), and **1**–BSA (red). **1**–BSA was prepared by incubation of 40 nM **1** with 80 nM BSA in HEPES.

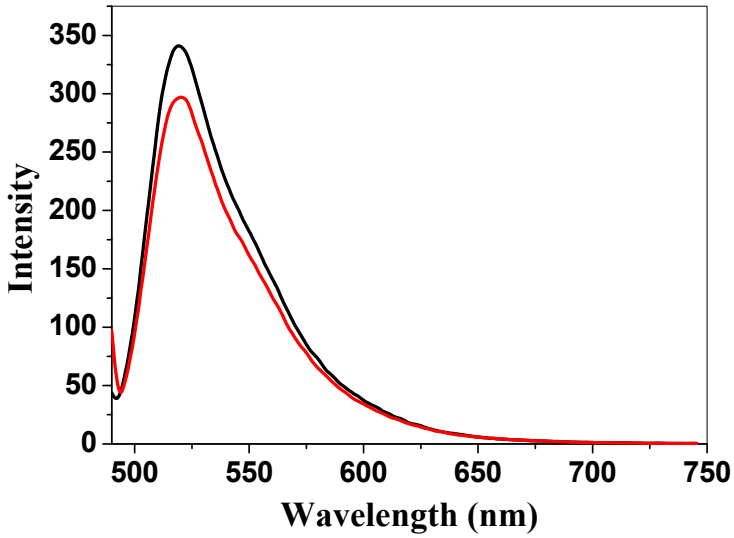


Figure S3. Emission spectra of OG in the presence of **N3** (black) and **N3**–PA (red).

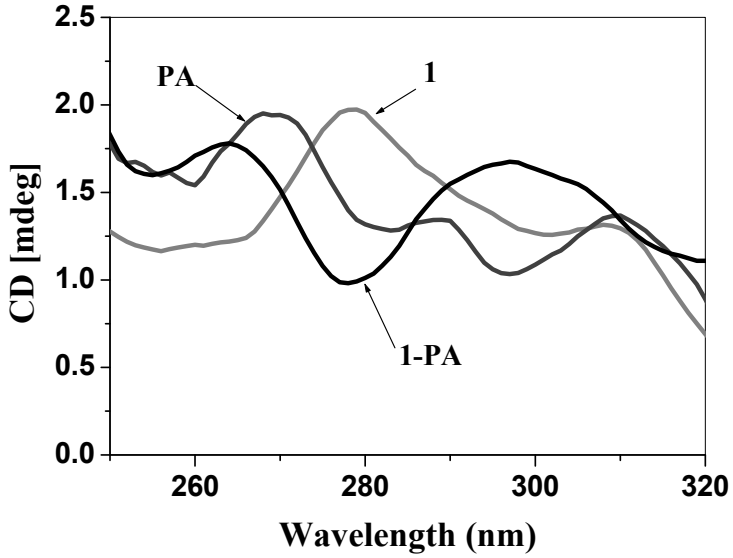


Figure S4. Circular dichroism spectra of 40 nM PA, 40 nM **1**, and **1**-PA. **1**-PA was prepared by incubating 40 nM **1** with 40 nM PA in HEPES (pH = 7.4).

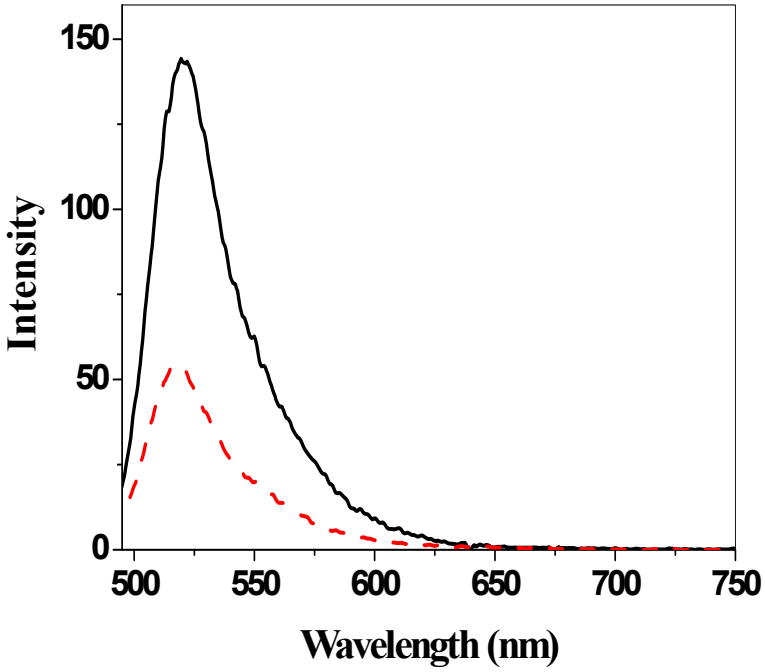


Figure S5. Fluorescence emission spectra (λ_{ex} = 480 nm) of OG in the presence of 40 nM **1** (solid), and **1**-PA (dashed) in 5 mM phosphate buffer (pH = 7.4). **1**-PA was prepared incubating 40 nM **1** with 60 nM PA for 5 min at 35 °C.

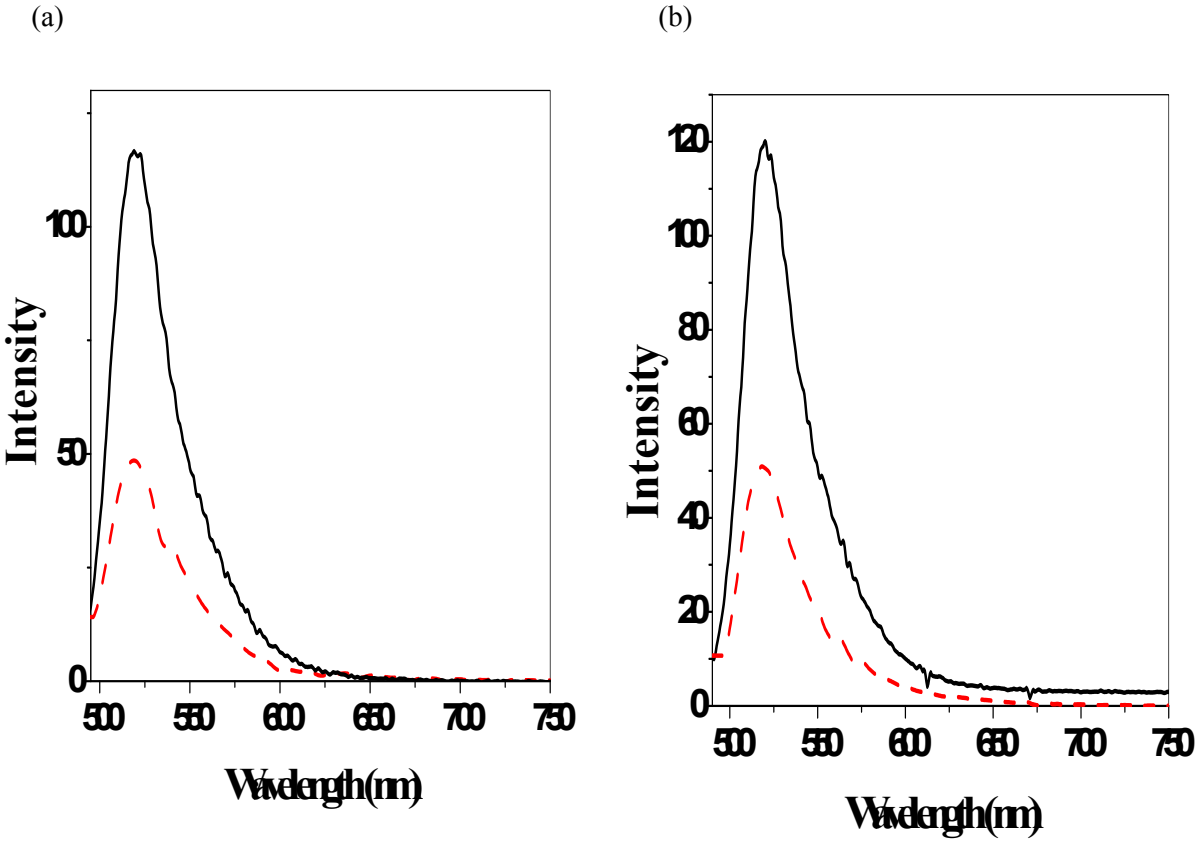


Figure S6. Fluorescence emission spectra (λ_{ex} = 480 nm) of OG in the presence of 40 nM **1** (solid), and **1**-PA (dashed) in HEPES buffer at pH = (a) 5.3 and (b) 8.0. The fluorescence intensities are plotted in arbitrary units (au).

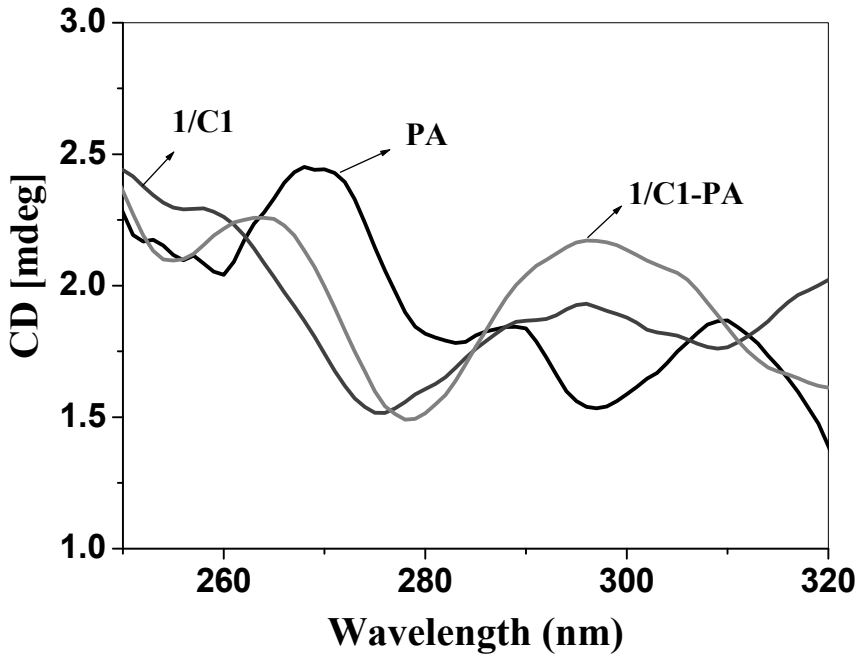


Figure S7. Circular dichroism spectra of 40 nM PA, 40 nM **1**/**C1**, and **1**/**C1**-PA. The **1**/**C1**-PA solution was prepared by incubating 40 nM **1**/**C1** with 40 nM PA in HEPES (pH = 7.4).

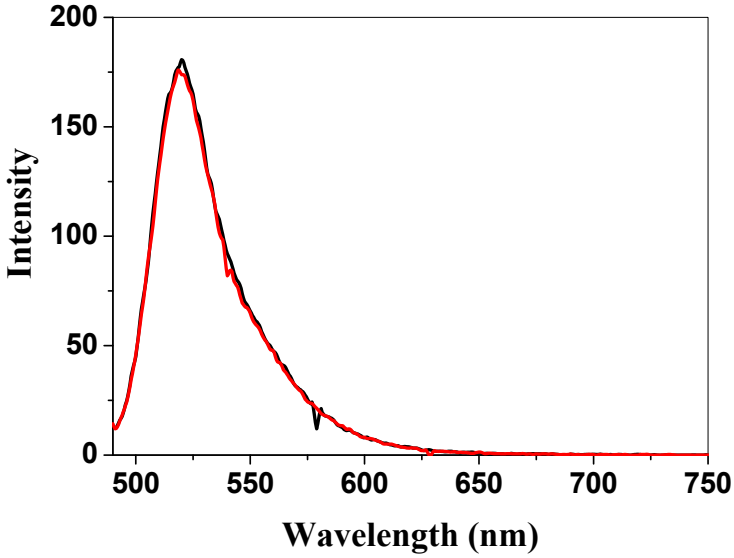


Figure S8. Fluorescence emission spectra of OG in the presence of 40 nM **1/C1** (black), and **1/C1**-BSA (red). **1/C1** –BSA was prepared by incubation of 40 nM **1/C1** with 80 nM BSA in HEPES.

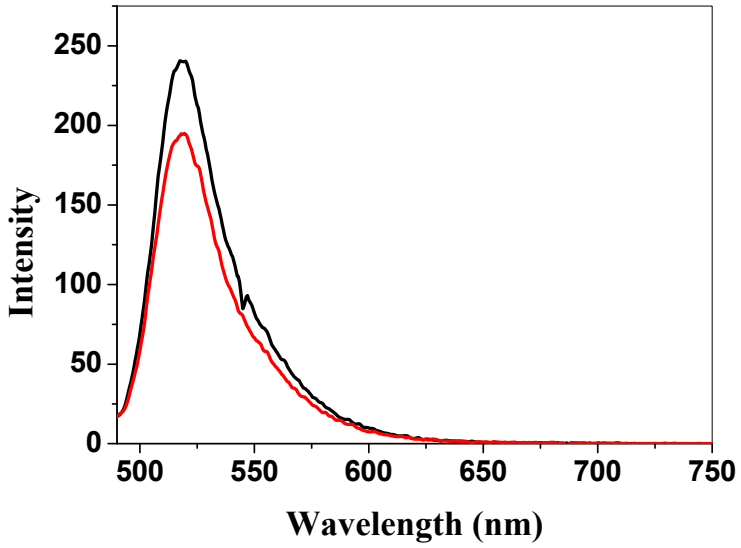
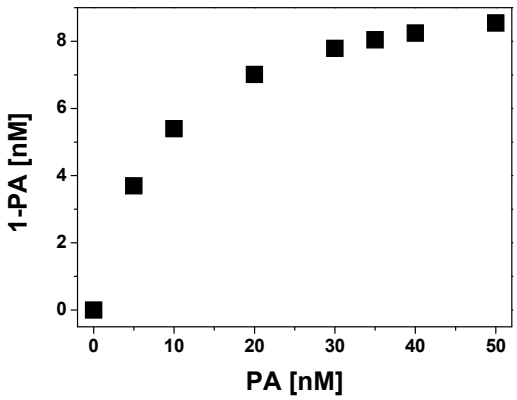


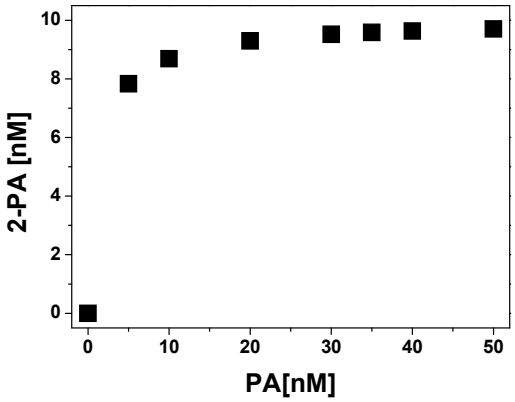
Figure S9. Emission spectra of OG with 40 nM **1/C2** (black) and **1/C2** incubated with 60 nM PA (red). The fluorescence intensities are plotted in arbitrary units (au).

a)



[PA]	[**1**-PA]
0	0
5	3.6955
10	5.3967
20	7.0102
30	7.7861
35	8.0404
40	8.2423
50	8.5426

b)



[PA]	[**2**-PA]
0	0
5	7.834
10	8.688
20	9.298
30	9.521
35	9.5864
40	9.636
50	9.7069

Figure S10. Calculated values and plots of the **1**-PA and **2**-PA ternary complexes formed from **1** and **2**, respectively, based on the chemical equilibrium equations about dissociation of **1**-PA and **2**-PA and K_d values reported (8.53 and 1.51 nM for **1** and **2**, respectively).