

1 **Supporting Information**

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3 **Label-free Emission Assay of Mercuric Ions Using DNA Duplexes of**  
4 **Poly(dT)**

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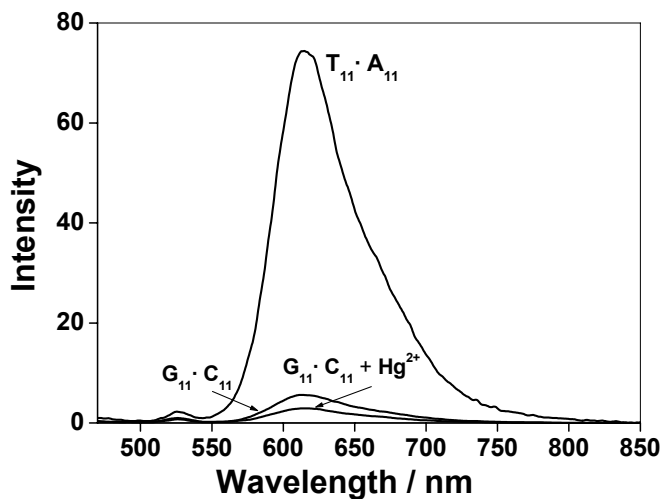
18 Youngnam University

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22 [\*\*] This research is supported by the SRC/ERC program of MOST/KOSEF (R11-2005-008-  
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7 **Figure S1.** Emission spectra ( $\lambda_{\text{ex}} = 480 \text{ nm}$ ) of **1** in the presence of  $0.10 \mu\text{M } G_{11}\cdot C_{11}$

8 without and with 10 equiv  $\text{Hg}^{2+}$  in phosphate buffer ( $\text{pH} = 7.0$ ). These emission spectra were

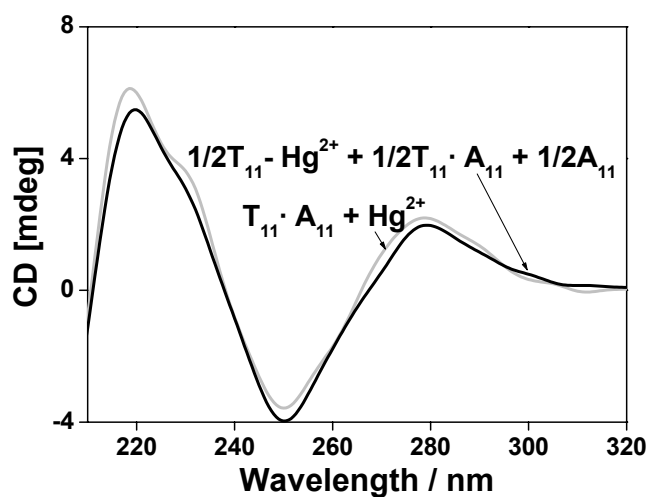
9 plotted with that of  $T_{11}\cdot A_{11}$  for comparison.

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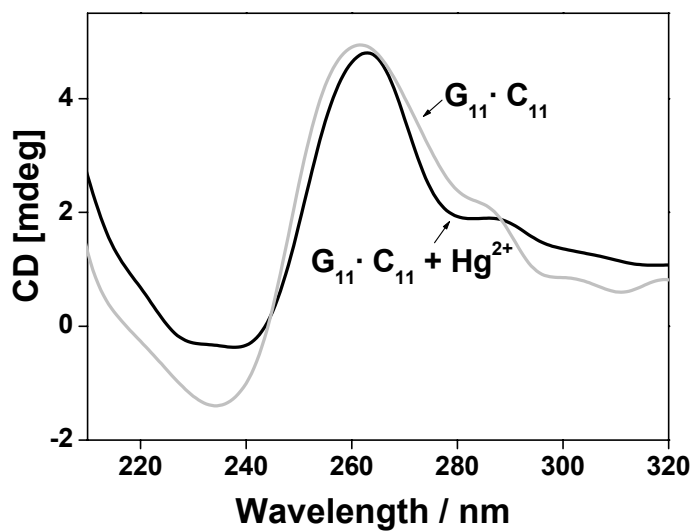


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11 **Figure S2.** Circular dichroism spectra collected with 1.0  $\mu\text{M}$   $\text{T}_{11}\cdot\text{A}_{11}$  treated with 5 equiv  $\text{Hg}^{2+}$   
12 (gray line) and the mixture of 0.5  $\mu\text{M}$   $\text{T}_{11}\cdot\text{A}_{11}$  + 0.5 nM  $\text{A}_{11}$  +  $\text{T}_{11}\cdot\text{Hg}^{2+}\cdot\text{T}_{11}$  prepared with 0.5  
13  $\mu\text{M}$   $\text{T}_{11}$  and 5 equiv  $\text{Hg}^{2+}$  (black) in 10 mM phosphate buffer (pH = 7.0).

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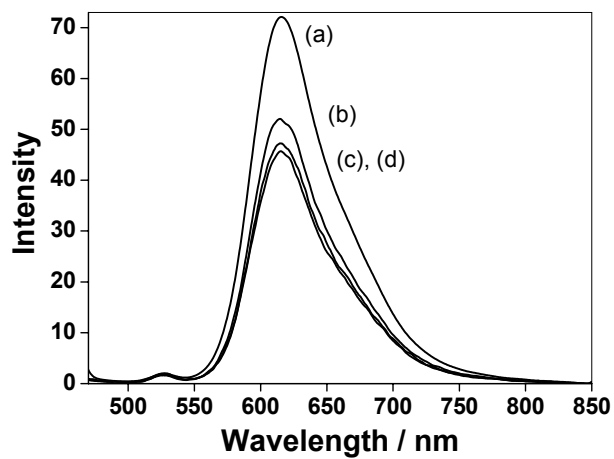
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10 **Figure S3.** Circular dichroism spectra collected with 1.0  $\mu$ M  $G_{11} \cdot C_{11}$  (gray line) and 1.0  $\mu$ M  
11  $G_{11} \cdot C_{11}$  treated with 10 equiv  $Hg^{2+}$  (black) in phosphate buffer (pH = 7.0).

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8 **Figure S4.** Emission spectra of **1** with (a) T<sub>11</sub>·A<sub>11</sub>, (b) T<sub>10</sub>G·A<sub>11</sub>, (c) T<sub>10</sub>C·A<sub>11</sub>, and (d) T<sub>10</sub>A·A<sub>11</sub>

9 (each 0.10 μM) in 10 mM phosphate buffer.

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