

Supporting Information

In-solution molecular recognition comparison of aptamers against the herbicide atrazine

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Table S1. Binding thermodynamic values of ITC experiment

	Aptamer: atrazine molar Ratio = 1:10
n-value	$2.62 \times 10^{-1} \pm 3.63 \times 10^{-1}$
K (M ⁻¹)	$3.87 \times 10^5 \pm 6.06 \times 10^5$
K _d (μM)	2.58 ± 1.65
ΔH (kcal/ mol)	-692.9 ± 1121
ΔS (cal/ mol/ deg)	23.2
c value	1.02

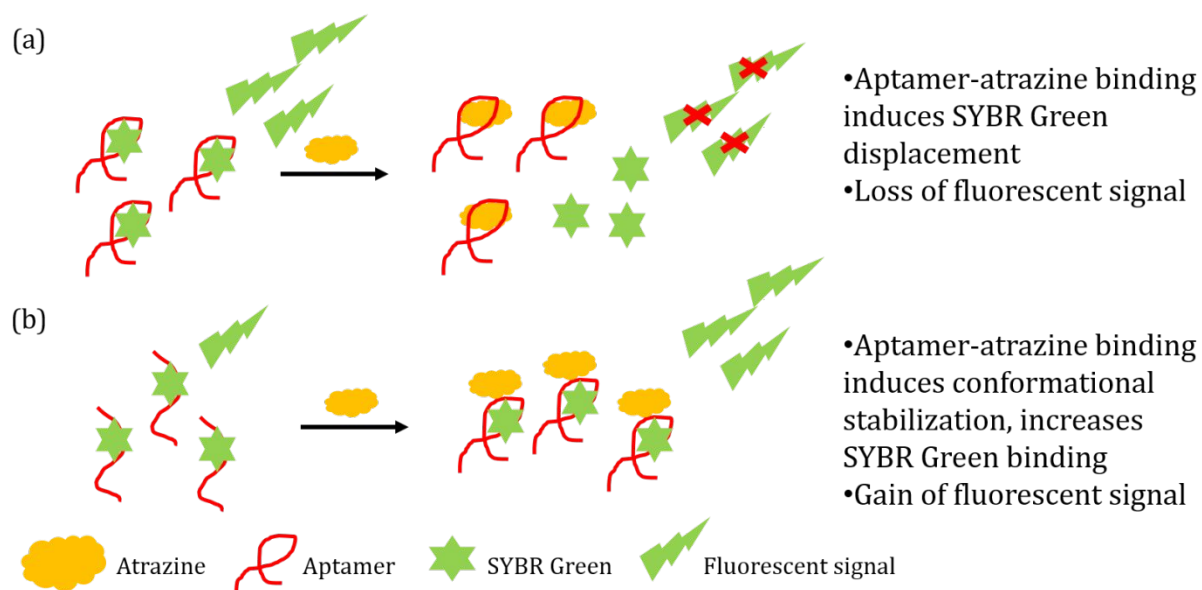


Figure S1. (a) Principle of SYBR Green assays for loss of fluorescent signal demonstrated in R12.23 Trunc. (b) Principle of SYBR green assays for the gain of fluorescent signal previously demonstrated in R12.45 Trunc.

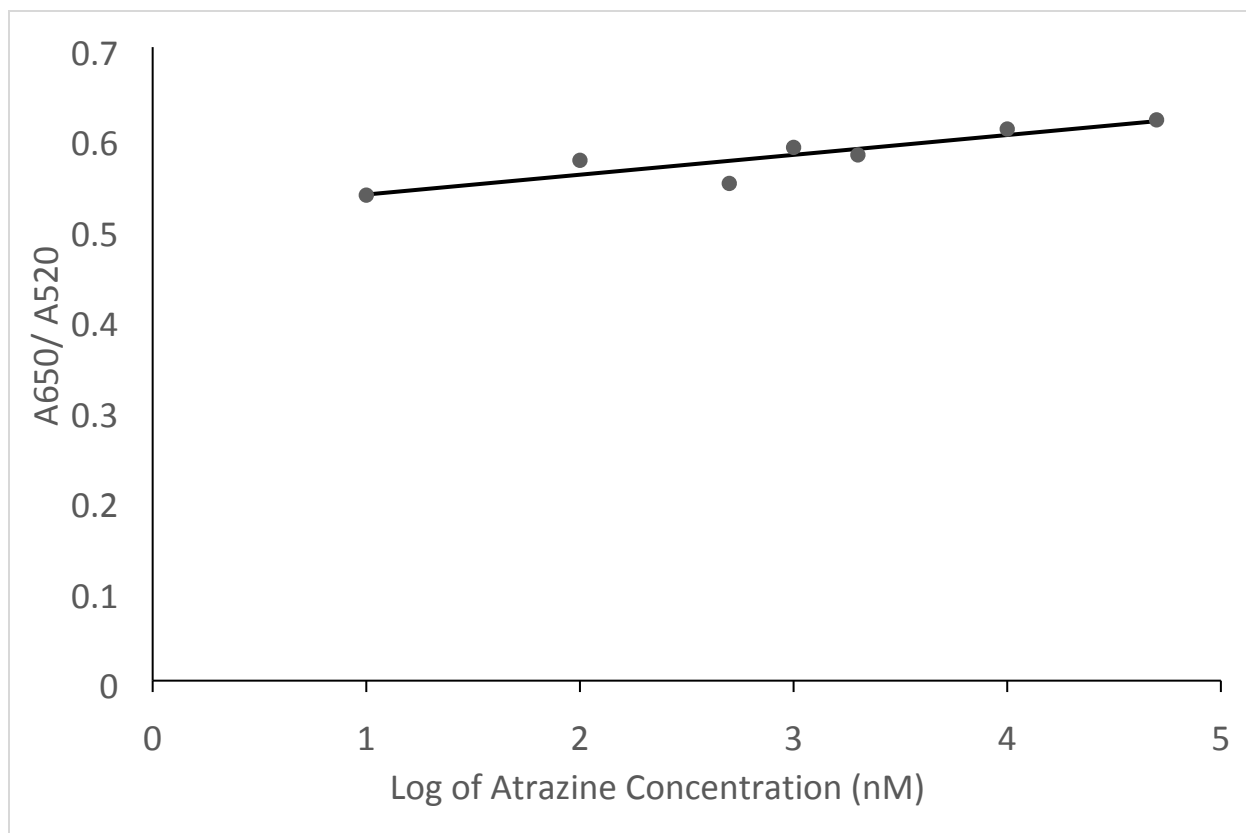


Figure S2. Linear calibration curves for the R12.23 Trunc. adsorbed AuNP aggregation assay. Linear responses was obtained between 10 nM and 50 μ M; LOD (3.3 sigma / slope) = 174 nM.

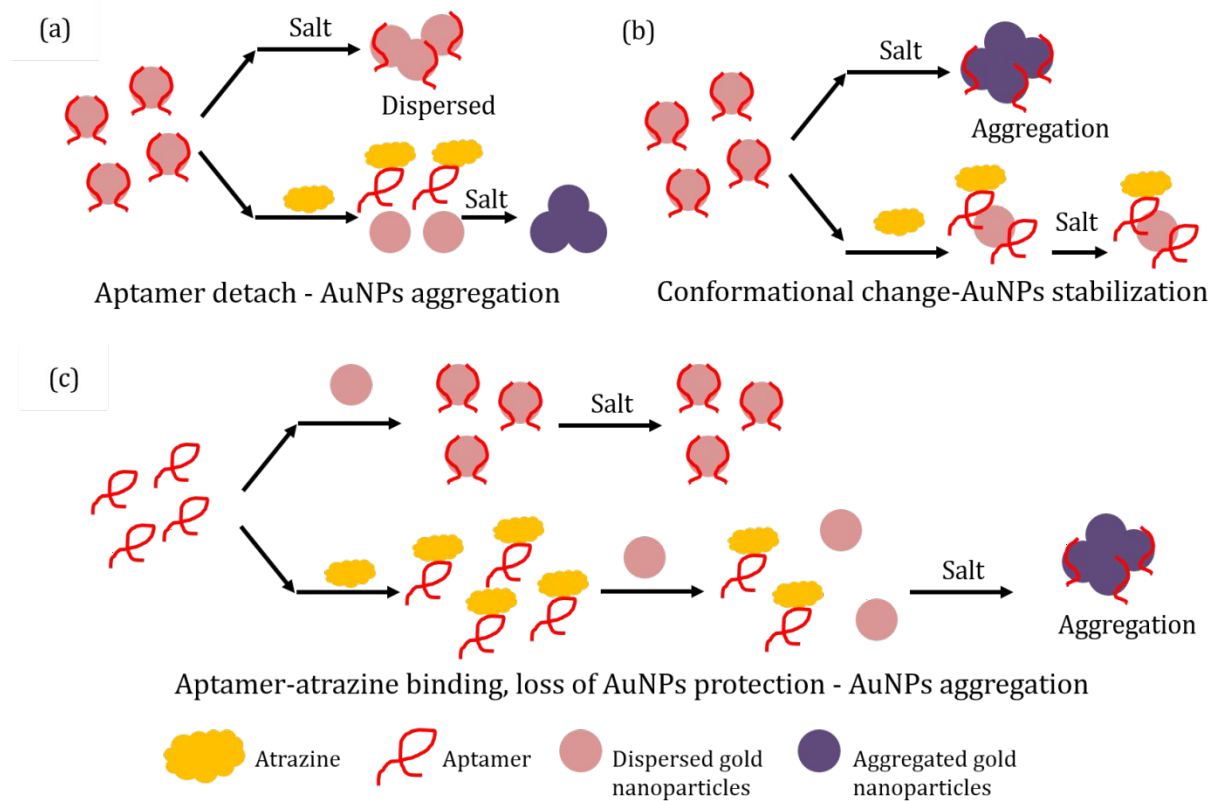


Figure S3. (a) Principle of the adsorbed AuNP aggregation assays using R12.23 Trunc. (b) Principle of the adsorbed AuNP aggregation assays using R12.45 Trunc. (c) Principle of the free AuNP aggregation assays using either R12.23 Trunc. and R12.45 Trunc.

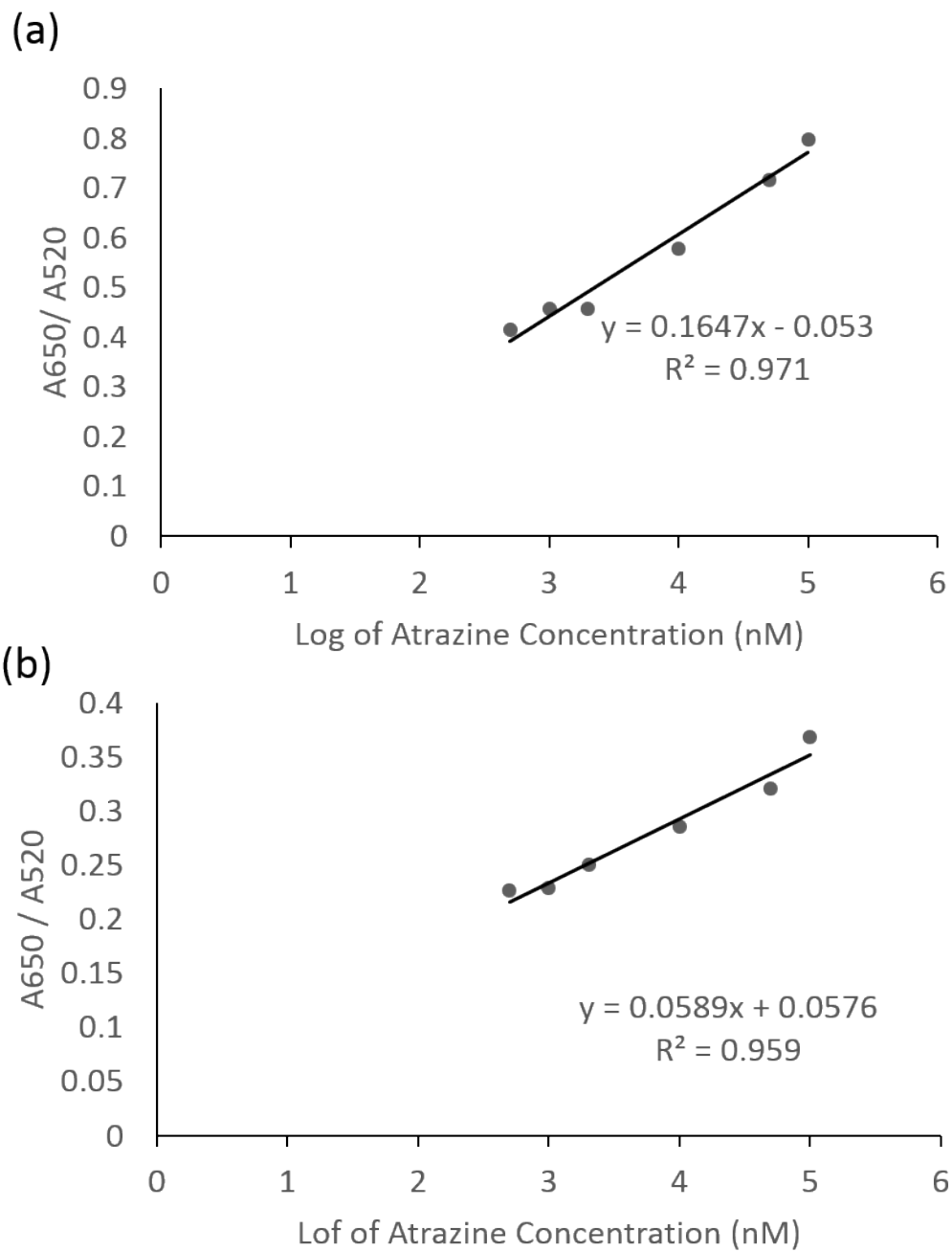


Figure S4. (a) Linear calibration curves for the R12.23 Trunc. free AuNP aggregation assay. Linear responses were obtained between 500 nM and 100 μ M; LOD (3.3 sigma / slope) = 4 nM (b) Linear calibration curves for the R12.45 Trunc. free AuNP aggregation assay. Linear responses were obtained between 500 nM and 100 μ M; LOD (3.3 sigma / slope) = 5 nM.