

## Supplementary Information

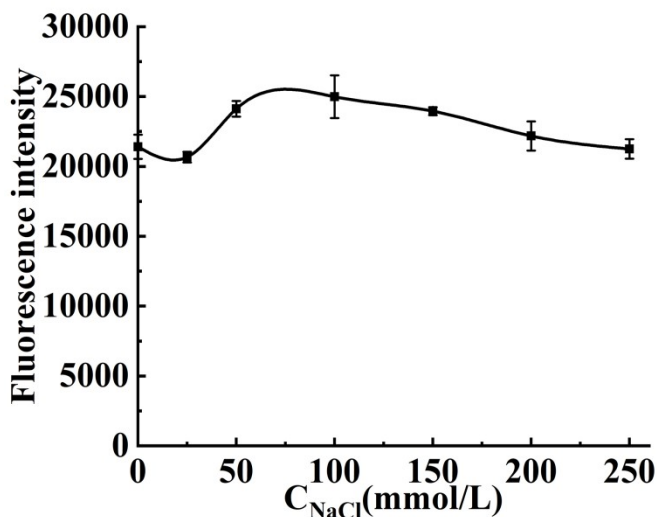


Figure S1. The stability of dsDNA-CuNCs in salt ion solution.

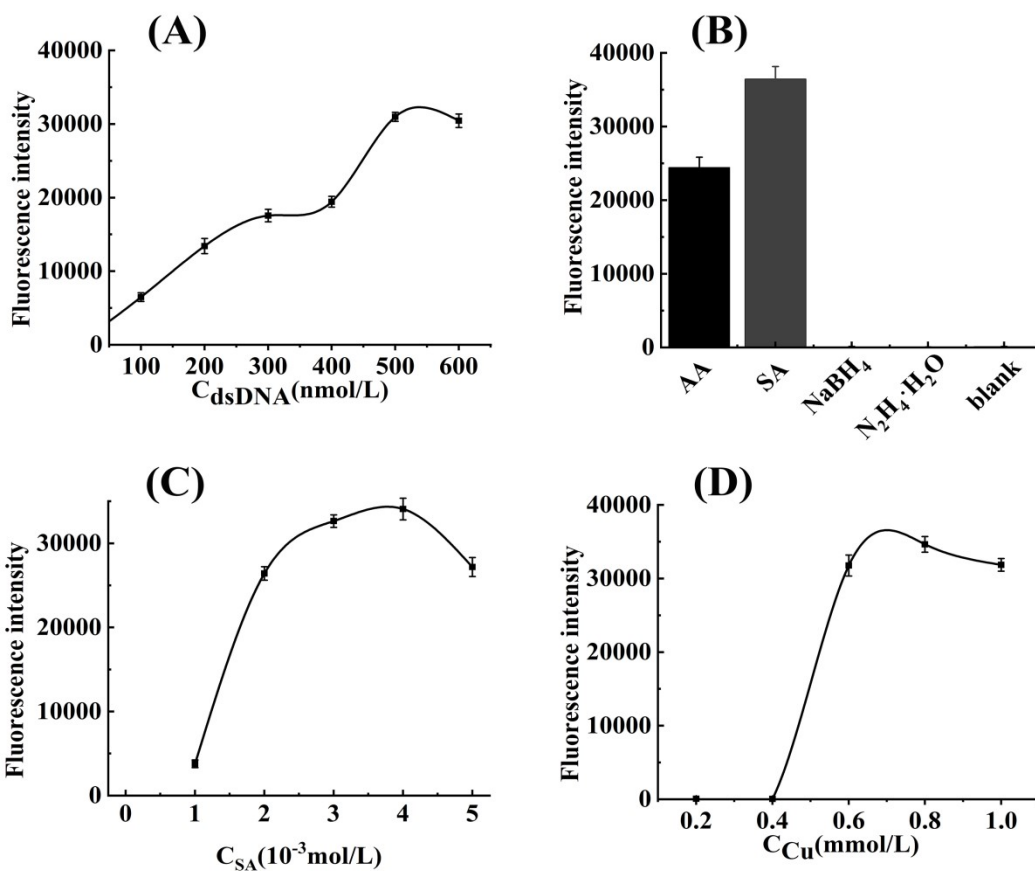


Figure S2. Optimization of synthesis conditions of dsDNA-CuNCs. (A) DNA template concentration optimization. (B) Reducing agent type. (C) SA concentration. (D)  $\text{Cu}^{2+}$  concentration.

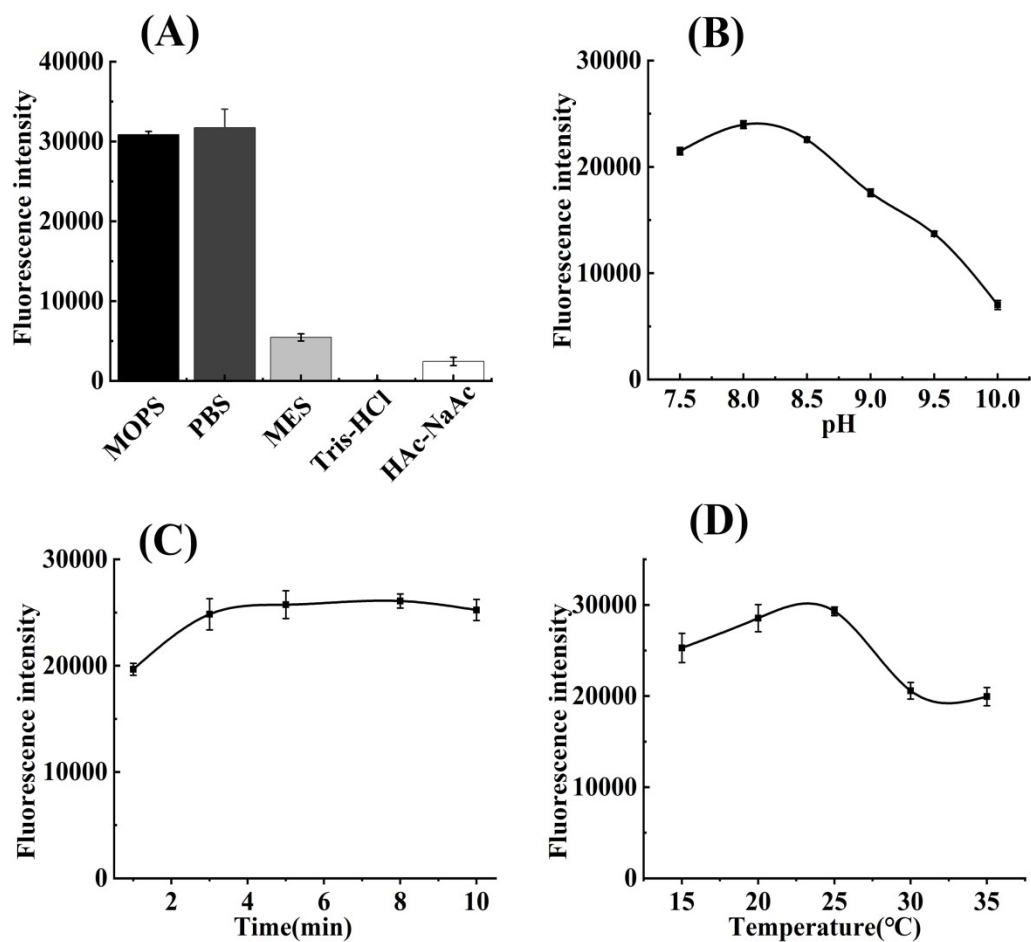


Figure S3. Optimization of synthesis conditions of dsDNA-CuNCs. (A) Buffer type. (B) Buffer pH. (C) Synthesis time. (D) Synthesis temperature.

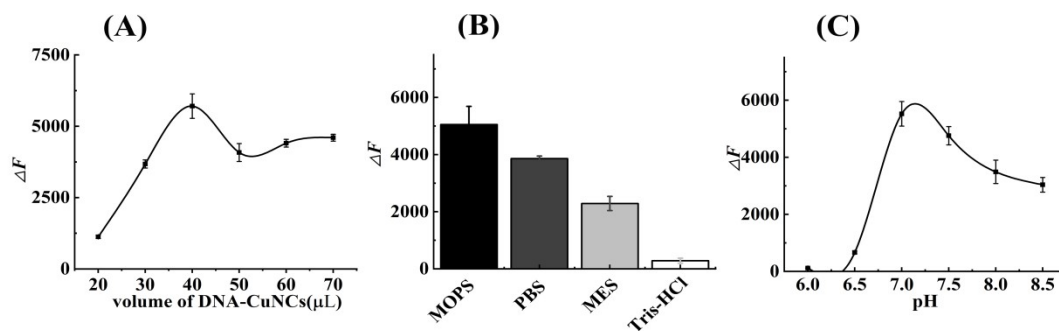
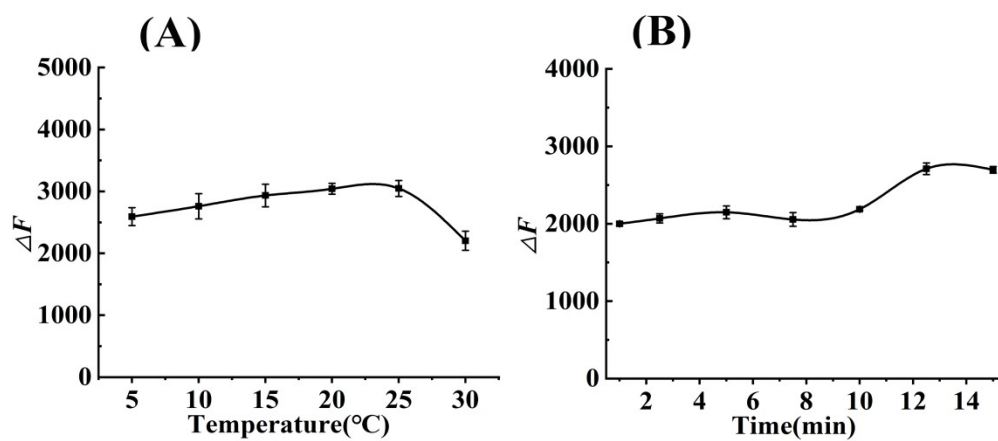


Figure S4. Optimization of FA detection conditions. (A) Effect of the volume of DNA-CuNCs on the system. (B) Buffer type. (C) pH.



Fig

ure S5. Optimization of FA detection conditions. (A) Reaction temperature. (B) Reaction time.

Table S1. Detection results of FA in tablet samples

Sample	Original ( $\mu\text{M}$ )	Spiked ( $\mu\text{M}$ )	Found ( $\mu\text{M}$ )	Recovery (%)	RSD (%)
Tablet		5	14.78	104.68	3.15%
	9.55	10	20.09	105.41	1.67%
		20	29.44	99.45	2.60%