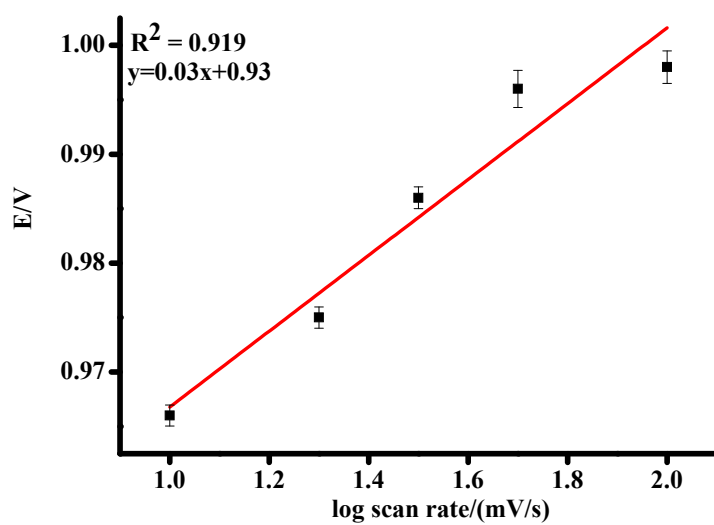# Supplementary Materials

**Table S1**. Electrochemical FAV detection based on electro oxidation.

| Method	Type of electrode (Modification)	Linear range, μM	Limit of detection, μM	Reference
SWV	BDDE	0.064–130	0.018	[49]
SWV	MnO$_2$-rGO/SPE	0.01–55	0.009	[50]
DPV	GCE (bimetallic) gold/silver core–shell nanoparticles (Au@Ag CSNPs)	0.005–2.0	0.0046	[48]
DPV	Pencil graphite electrode PGE	5.0–200.0 (1st linear segment) 200.0–600.0 (2nd linear segment)	1.55 (oxidation)	[51]
DPV	Diamond NPs/CPE	0.2-1.0	4.83×10^{-3}	[64]
AdsSWV	GCE	6.4–640	1.7	[65]
Electrochemical impedance spectroscopy	Fe3O4@SiO2–Au/GCE	0.1–104 ng/mL	4.78 pg/mL	[66]

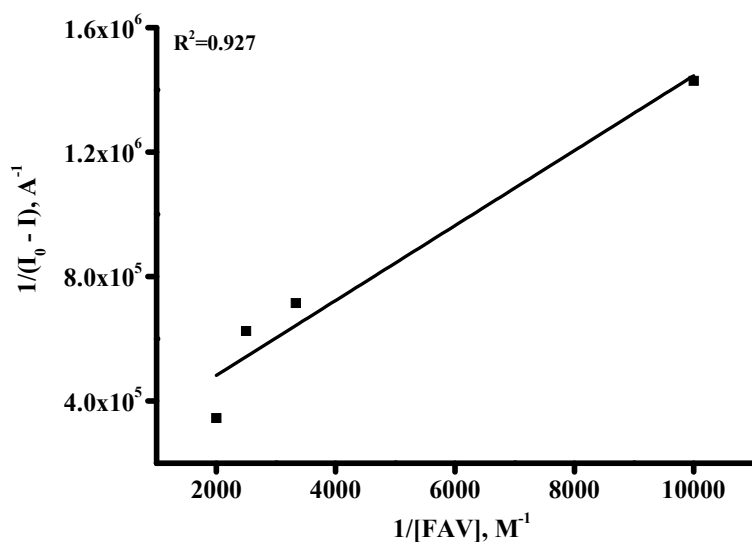|				
The CV and AdS-SWV techniques	Carbon black (Au@CCB) modified graphite nanopowder flakes paste electrode (GNFPE)	0.03 – 77.3	8.1 nM	[63]
SWV	(Pt@rGO/ GCE	3.16 to 100.0 μM	2.46 μM	[67]
DPV	SPE	50 - 500	37 μM	This work

Figure S1. The relationship between Epa vs. ln v at the surface of on SPE/CNT.
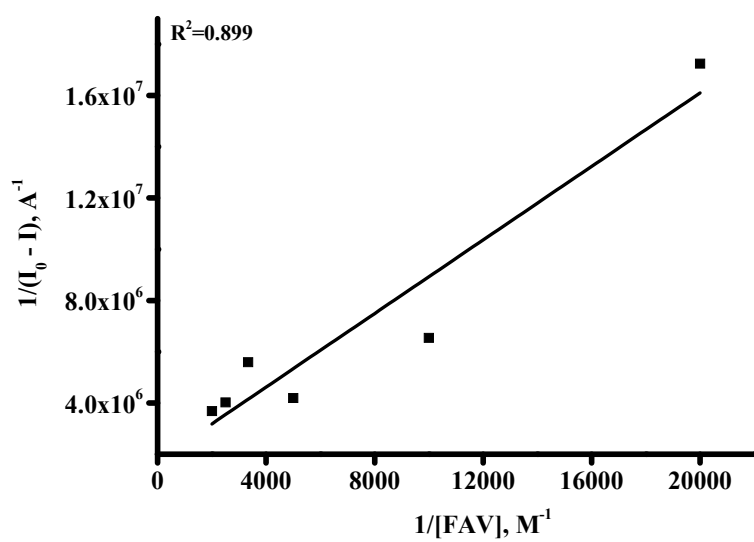
(a)
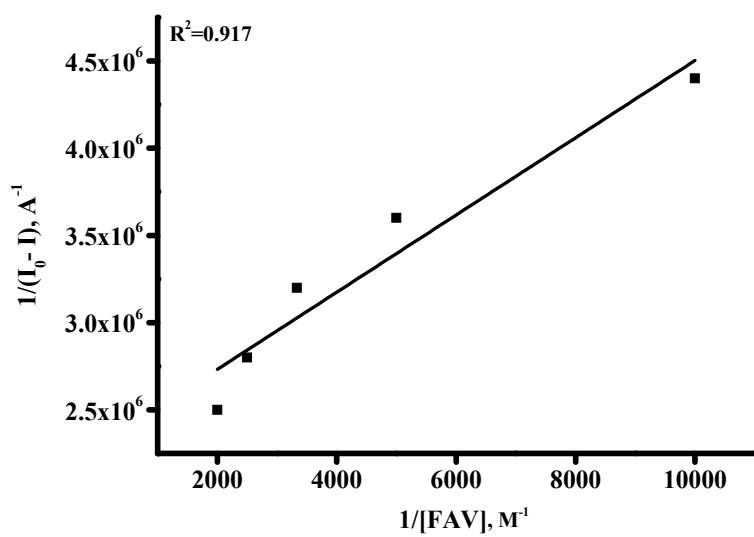
(b)

(c)

Figure S2. Linear plots for $1/(I_0 - I)$ depending on $1/[\text{drug}]$: (**a**) FAV/dsDNA (for guanine signals); equation for linear fit: $y=718x+1.75\times10^6$, $R^2=0.899$, $K_b=0.24\times10^4\,M^{-1}$;

(**b**) FAV/dsDNA (for adenine signals); equation for linear fit: $y=221x+2.29$, $R^2=0.917$, $K_b=1.03\times10^4 M^{-1}$;

(**c**) FAV/dsDNA (for thymine signals); equation for linear fit: $y=120.45x+241154$, $R^2=0.927$, $K_b=0.20\times10^4 M^{-1}$.