

1 **Electronic Supplementary Information**

2 **A turn-on FRET sensor based on dichlorofluorescein and AuNPs for**  
3 **rapid and ultrasensitive detection of ambroxol hydrochloride in urine**

4 Pinping Wu<sup>a,1</sup>, Nan Li<sup>a</sup>, Yu Gu<sup>a</sup>, Yuhan Guo<sup>a</sup>, Haoshuang Lou<sup>a</sup>, Hua He<sup>a,b,c,\*</sup>

5 **Caption:**

6 Fig. S1 Images of DCF-Sodium Citrate complex(A) and AMB-Sodium Citrate complex(B) by  
7 computer simulation in Discovery studio 2.5

8 Table S1 Repeatability of the determination method for AMB

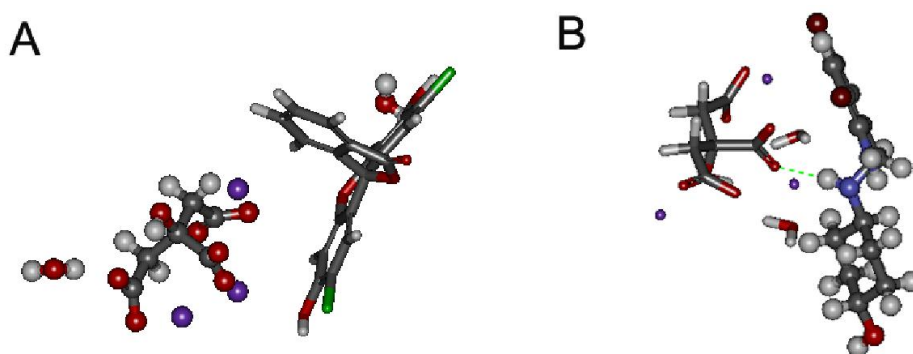
9 Table S2 Comparison of the proposed method for the determination of AMB with standard  
10 RP-HPLC method

11

12

13

14



15 **Fig. S1** Images of DCF-Sodium Citrate complex(A) and AMB-Sodium Citrate  
16 complex(B) by computer simulation in Discovery studio 2.5

17

18

19

20

21

1

2

**Table S1** Repeatability of the determination method for AMB

Sample	$(F-F_0)/F_0$	$C(\times 10^{-8} \text{ M})$	$C_{\text{平均}}(\times 10^{-8} \text{ M})$	RSD (% , n=6)
1	0.8543	4.766		
2	0.8982	5.025		
3	0.8342	4.648	4.823	2.9
4	0.9021	5.048		
5	0.8496	4.739		
6	0.8453	4.713		

3

4

5

6

7

8

**Table S2** Comparison of the proposed method for the determination of AMB with standard RP-HPLC method

9

Analytical method	Added amount ( $\mu\text{g/mL}$ )	Found amount (ng/mL)	RSD (% , n = 3)	Average recovery (% , n = 3)	$t_{0.05,10}=2.228$
RP-HPLC	20.00	20.77 19.38 19.77 19.65 20.95 21.23	3.4	101.5	0.99
Fluorometry/ FRET (DCF-AuNPs)	20.00	18.96 21.04 19.87 18.65 19.32 20.86	4.1	98.9	

10

11

12