

Multifunctional effects of Cys-CdTe QDs conjugated with gambogic acid for cancer cell tracing and inhibition

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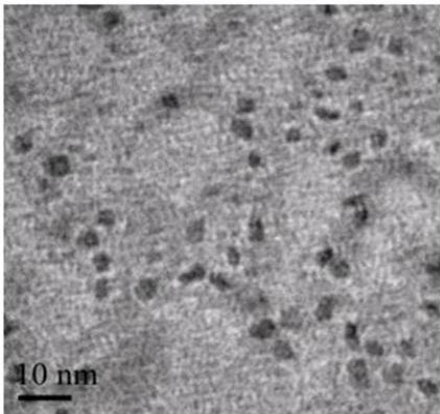


Fig. S1 TEM image of Cys-CdTe QDs.

Table 1. Cytotoxicity of GA and GA-Cys-CdTe nanocomposites to human leukemia K562 cells

GA / $\mu\text{g/mL}$	K562 Cell Inhibition/ %					
	24 h		48 h		72 h	
	GA	GA-Cys-CdTe	GA	GA-Cys-CdTe	GA	GA-Cys-CdTe
0.0625	0.2 $\pm$ 2.4	5.3 $\pm$ 4.1	2.7 $\pm$ 3.5	18.9 $\pm$ 2.9	9.1 $\pm$ 3.6	25.4 $\pm$ 4.4
0.125	3.2 $\pm$ 1.5	11.9 $\pm$ 2.7	6.2 $\pm$ 1.1	32.3 $\pm$ 4.4	14.6 $\pm$ 2.4	47.3 $\pm$ 2.2
0.25	6.3 $\pm$ 2.8	30.3 $\pm$ 1.9	23.3 $\pm$ 2.6	52.6 $\pm$ 4.1	35.5 $\pm$ 2.8	60.1 $\pm$ 3.1
0.50	20.5 $\pm$ 2.2	42.1 $\pm$ 3.9	40.5 $\pm$ 3.5	62.2 $\pm$ 2.9	49.6 $\pm$ 3.1	75.7 $\pm$ 1.9
1.00	34.1 $\pm$ 3.1	58.1 $\pm$ 2.6	52.7 $\pm$ 1.9	81.6 $\pm$ 3.3	60.3 $\pm$ 2.5	88.7 $\pm$ 3.5
2.00	44.9 $\pm$ 3.9	76.2 $\pm$ 3.5	60.8 $\pm$ 3.2	94.8 $\pm$ 2.5	71.5 $\pm$ 4.1	95.1 $\pm$ 3.6

Table 2. Cytotoxicity of GA and GA-Cys-CdTe nanocomposites to human leukemia drug-resistant K562/A02 cells.

GA / $\mu\text{g/mL}$	K562/A02 Cell Inhibition /%					
	24 h		48 h		72 h	
	GA	GA-Cys-CdTe	GA	GA-Cys-CdTe	GA	GA-Cys-CdTe
0.0625	1.1 $\pm$ 3.5	10.5 $\pm$ 2.9	3.1 $\pm$ 2.1	29.2 $\pm$ 3.9	9.9 $\pm$ 3.4	30.2 $\pm$ 4.2
0.125	3.5 $\pm$ 1.8	19.3 $\pm$ 3.9	8.4 $\pm$ 1.6	42.8 $\pm$ 4.1	18.1 $\pm$ 2.8	53.2 $\pm$ 3.9
0.25	9.1 $\pm$ 3.5	35.5 $\pm$ 3.0	17.6 $\pm$ 2.6	59.3 $\pm$ 2.9	30.0 $\pm$ 3.9	68.1 $\pm$ 1.9
0.50	19.1 $\pm$ 3.1	48.6 $\pm$ 2.6	35.6 $\pm$ 3.9	71.2 $\pm$ 3.3	49.0 $\pm$ 3.5	85.9 $\pm$ 2.9
1.00	32.9 $\pm$ 4.2	62.9 $\pm$ 3.5	50.2 $\pm$ 3.2	90.0 $\pm$ 3.5	61.6 $\pm$ 3.3	92.6 $\pm$ 3.1
2.00	40.3 $\pm$ 3.9	80.5 $\pm$ 3.1	65.5 $\pm$ 2.6	92.9 $\pm$ 2.4	83.5 $\pm$ 4.1	95.2 $\pm$ 3.0

Table 3. Cytotoxicity of GA and GA- Cys-Cys-CdTe nanocomposites to HELF cells.

GA / $\mu\text{g/mL}$	HELF Cell Inhibition /%					
	24 h		48 h		72 h	
	GA	GA-Cys-CdTe	GA	GA-Cys-CdTe	GA	GA-Cys-CdTe
0.0625	0.8 $\pm$ 1.8	2.4 $\pm$ 0.9	1.7 $\pm$ 2.3	3.2 $\pm$ 3.0	3.8 $\pm$ 3.0	7.3 $\pm$ 3.2
0.125	2.5 $\pm$ 1.5	3.3 $\pm$ 2.3	3.3 $\pm$ 2.2	7.9 $\pm$ 3.1	6.0 $\pm$ 1.6	15.5 $\pm$ 1.9
0.25	5.6 $\pm$ 2.9	7.5 $\pm$ 3.4	7.2 $\pm$ 3.1	19.7 $\pm$ 2.0	10.1 $\pm$ 3.5	22.4 $\pm$ 2.2
0.50	16.1 $\pm$ 3.0	17.6 $\pm$ 3.3	20.9 $\pm$ 2.9	31.4 $\pm$ 3.5	29.5 $\pm$ 3.9	37.3 $\pm$ 2.3
1.00	30.8 $\pm$ 3.1	35.9 $\pm$ 4.1	35.7 $\pm$ 3.2	47.1 $\pm$ 3.0	41.2 $\pm$ 3.3	50.1 $\pm$ 2.7
2.00	43.3 $\pm$ 2.7	60.5 $\pm$ 3.8	57.6 $\pm$ 3.1	70.2 $\pm$ 4.1	66.3 $\pm$ 2.5	76.5 $\pm$ 3.1

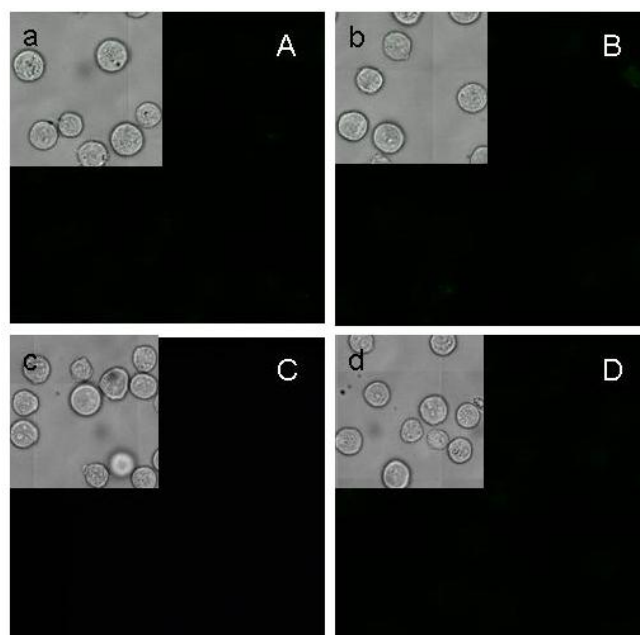


Fig. S2 Confocal fluorescence microscopy images of different leukemia cancer cells for the control experiments. A: K562 cells, B: K562 treated with GA; C: K562/A02 cells, D: K562/A02 treated with GA.