Supporting information

New strategy of photodynamic treatment of TiO_2 nanofibers combined with celastrol for HepG2 proliferation in vitro

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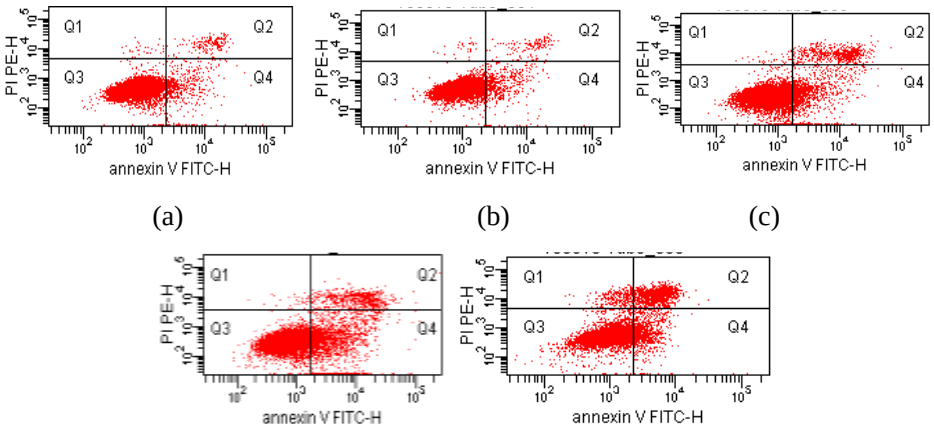
Results

Celastrol /μg/ml	Cell Inhibition /%								
	24 h			48 h			72 h		
	CSL	CSL+TiO_2 (no UV)	CSL+TiO_2 (with UV)	CSL	CSL+TiO_2 (no UV)	CSL+TiO_2 (with UV)	CSL	CSL+TiO_2 (no UV)	CSL+TiO_2 (with UV)
0.125	4.11±1.5	5.2±2	10.95±2.6	8.05±2.1	10.22±3.9	18.96±4.6	14.55±2.4	20.32±2.2	34.78±3.8
0.25	7.52±1.8	9.33±1.9	17.01±3.3	10.09±1.6	15.23±4.1	25.22±5.1	21.15±1.8	30.11±3.1	50.65±4.2
0.5	9.89±2.2	12.51±3	23.33±2.9	11.49±4.6	21.55±2.9	40.46±4.9	30.41±1.9	45.69±1.9	59.18±4.5
1	14.59±2.1	18.06±1.6	33.24±4.1	20.75±1.9	29.93±3.3	55.84±3.2	43.23±3.6	58.59±1.9	70.56±3.9
2	22.35±1.9	26.19±2.5	40.01±3.9	40.21±2.2	48.8±3.5	64.31±3.1	51.26±2.1	67.56±2.6	88.99±2.2
4	30.2±1.9	35.513.1	50.02±5.6	55.47±2.6	66.72±4.4	86.51±2.9	70.71±4.1	80.99±3.3	95.33±1.5

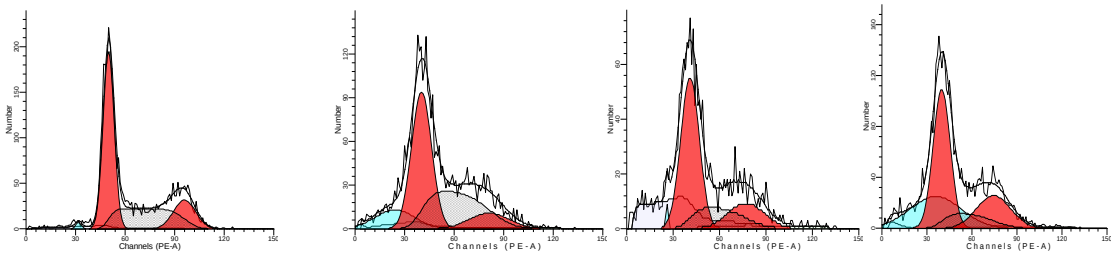
Table 1. The cytotoxicity of CSL and the nano-composites in which TiO_2 nanofibers was 10 μg/ml for HepG2 cells, and the photodynamic effect of these nano-composites after UV irradiation in different culture time.



(a) (b) (c)

(d) (e)

Figure 1. Effect of CSL, TiO_2 nanofibers, and nanocomposites between CSL and TiO_2 induced apoptosis in HepG2 cells for 24 h. A) Control; B) Incubated with 10 µg/ml TiO_2; (c) Incubated with 0.5 µg/ml CSL; (d) Incubated with 0.5 µg/ml CSL and 10 mg/L TiO_2; (e) Incubated with CSL and TiO_2 nanofibers for UV irradiation.



(a) (b) (c) (d)

Figure 2. Effect of CSL, TiO_2 nanofibers, and nanocomposites for HepG2 cells' cycle under UV irradiation. (a) Control; (b) Incubated with 0.5 µg/ml CSL; (c) Incubated with TiO2 nanofibers; (d) Incubated with nanocomposites for 24 h.