

Supplementary Materials: Size Matters in the Cytotoxicity of Polydopamine Nanoparticles in Different Types of Tumors

Celia Nieto, Milena A. Vega, Jesús Enrique, Gema Marcelo and Eva M. Martín del Valle

a Breast carcinoma - BT474 cell line						
[PD NPs] (mg/mL)	115 nm			200 nm		
	24h	48h	72h	24h	48h	72h
0.0074	88.6 ± 1.7	81.0 ± 1.3	77.2 ± 3.2	92.5 ± 2.5	86.4 ± 1	82.7 ± 1.2
0.015	82.6 ± 3	78.3 ± 2.8	71.8 ± 2.3	86.5 ± 0.2	83.9 ± 0.5	79.1 ± 1.6
0.029	77.4 ± 2.1	75.7 ± 1.5	65.2 ± 3.8	80.5 ± 0.8	73.2 ± 1	71.1 ± 0.8
0.042	69.0 ± 0.7	64.9 ± 1.4	58.8 ± 0.7	75.4 ± 1.4	69.3 ± 0.5	64.7 ± 0.8

b Colon carcinoma – HTC116 cell line						
[PD NPs] (mg/mL)	115 nm			200 nm		
	24h	48h	72h	24h	48h	72h
0.0074	93.4 ± 0.6	88.5 ± 1.4	85.9 ± 1.3	92.4 ± 3	89.1 ± 4	87.0 ± 3
0.015	84.1 ± 1.2	81.9 ± 1.1	77.9 ± 1.5	88.4 ± 4	82.2 ± 1	77.5 ± 1
0.029	79.9 ± 0.5	73.8 ± 1.3	69.0 ± 1.3	84.6 ± 3	79.5 ± 2	72.8 ± 0.5
0.042	70.7 ± 2.3	66.5 ± 1.1	63.1 ± 2.4	78.2 ± 4	75.9 ± 3	70.3 ± 2

c Liver carcinoma – HEPG2 cell line						
[PD NPs] (mg/mL)	115 nm			200 nm		
	24h	48h	72h	24h	48h	72h
0.0074	93.1 ± 1.4	86.9 ± 1.6	83.5 ± 1.2	94.9 ± 2	89.4 ± 0.7	86.5 ± 3
0.015	81.3 ± 0.5	78.4 ± 1.4	73.5 ± 1.4	89.8 ± 3	83.3 ± 0.8	80.9 ± 3
0.029	74.7 ± 0.6	68.8 ± 0.7	65.9 ± 1	85.7 ± 1	81.1 ± 0.8	74.7 ± 2
0.042	68.9 ± 1.3	63.3 ± 1.5	60.1 ± 0.8	79.1 ± 1.5	75.8 ± 3	67.4 ± 1

d Lung carcinoma – H460 cell line						
[PD NPs] (mg/mL)	115 nm			200 nm		
	24h	48h	72h	24h	48h	72h
0.0074	91.8 ± 0.9	88.2 ± 2.6	85.9 ± 3.4	94.2 ± 1.5	89.8 ± 0.5	87.4 ± 2.5
0.015	87.2 ± 1.3	82.3 ± 2.2	80.0 ± 4.5	92.0 ± 1.5	84.2 ± 0.8	82.7 ± 0.8
0.029	86.5 ± 1.2	79.0 ± 3.4	77.7 ± 1.5	89.0 ± 1.3	80.0 ± 1	77.3 ± 2.5
0.042	84.3 ± 1.2	75.3 ± 1.8	74.3 ± 2.9	85.3 ± 2	78.9 ± 2.5	76.6 ± 2

e Stromal cells – HS5 cell line						
[PD NPs] (mg/mL)	115 nm			200 nm		
	24h	48h	72h	24h	48h	72h
0.0074	96.7 ± 0.9	93.9 ± 1.2	93.3 ± 0.4	97.9 ± 1.5	97.3 ± 3	94.5 ± 1
0.015	93.6 ± 0.4	89.8 ± 1.7	85.9 ± 0.8	97.3 ± 3	88.0 ± 3	85.0 ± 0.8
0.029	90.0 ± 1.1	86.6 ± 1.2	83.9 ± 2.3	95.1 ± 4.5	86.2 ± 1.5	84.3 ± 1.5
0.042	83.2 ± 0.5	79.5 ± 0.5	75.4 ± 1.1	94.6 ± 1.8	79.6 ± 2	76.3 ± 2

Figure S1. Data corresponding to MTT results shown in Figure 2 with the BT474 (a), HTC116 (b), HEPG2 (c), H460 (d) and HS5 (e) cell lines. Shown results are the average cellular viability percentage ± SD of three replicas for each treatment.

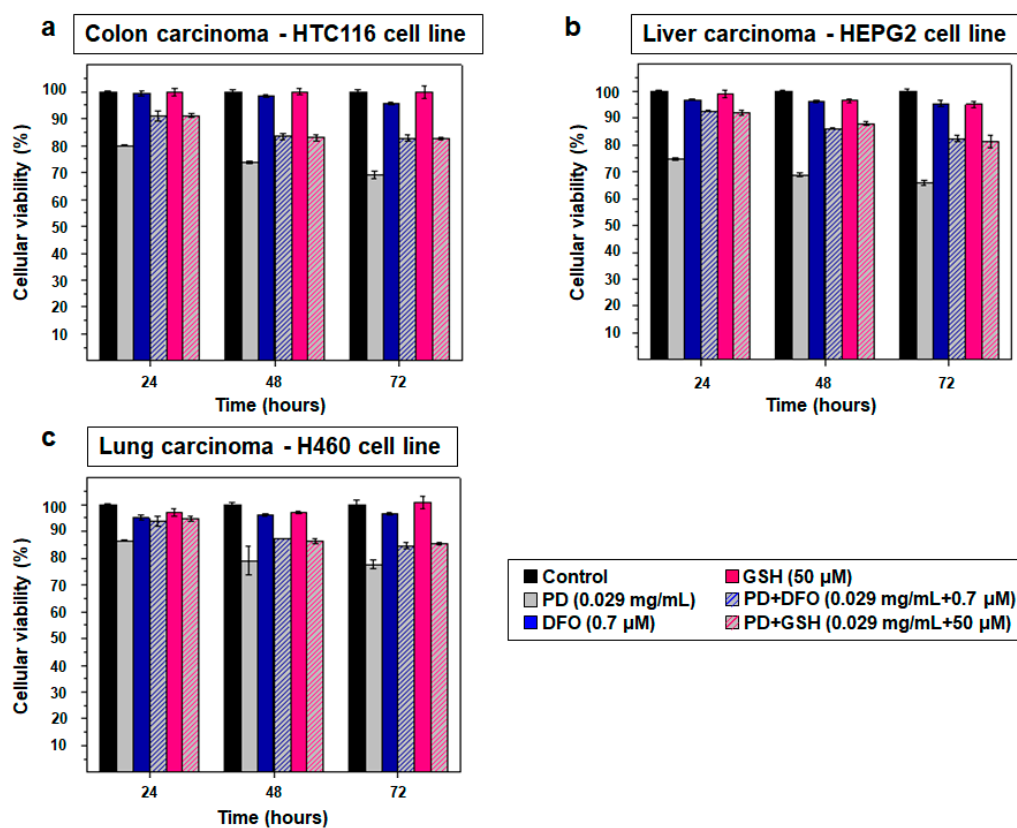


Figure S2. Results of the MTT assays carried out with HTC116 (a), HEPG2 (b) and H460 (c) cells after a co-treatment of 115 nm PD NPs (0.029 mg/mL, blue) with DFO (0.7 μM, green) and GSH (50 μM, pink). Shown results are against the mean ± SD of three replicas for each treatment.

