

Supplementary Data

Surface Modified Carvacrol-rich *Satureja khuzestanica* Essential Oil Nanoemulsion: A Novel Paclitaxel Formulation Induced Apoptosis on Paclitaxel-Resistant Breast Cancer Cells

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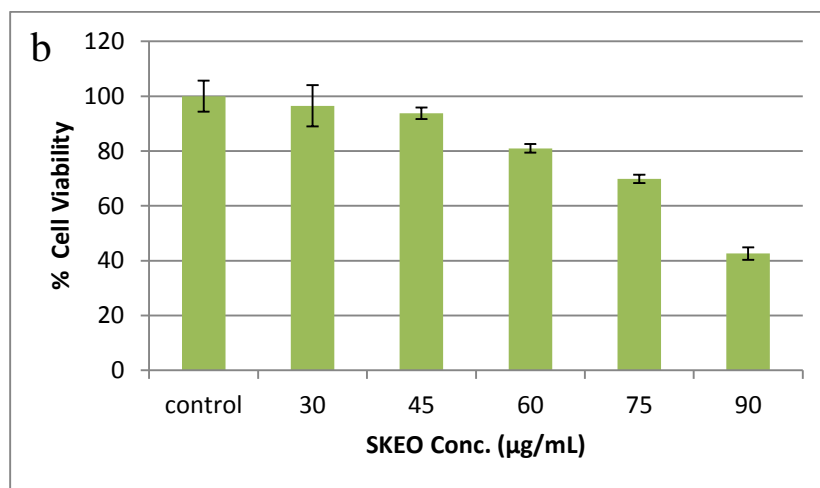
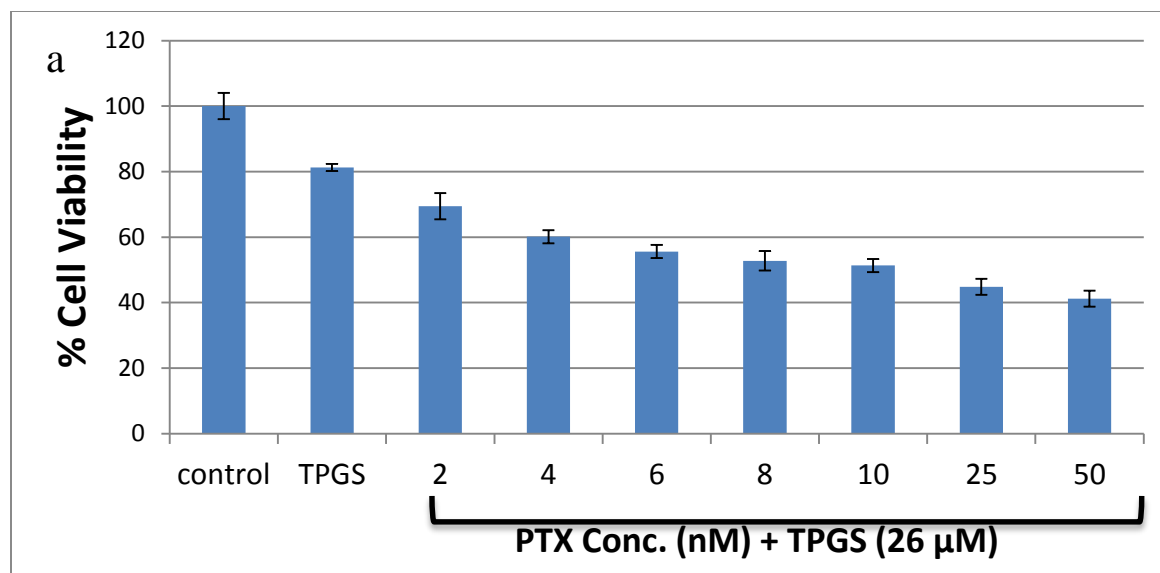


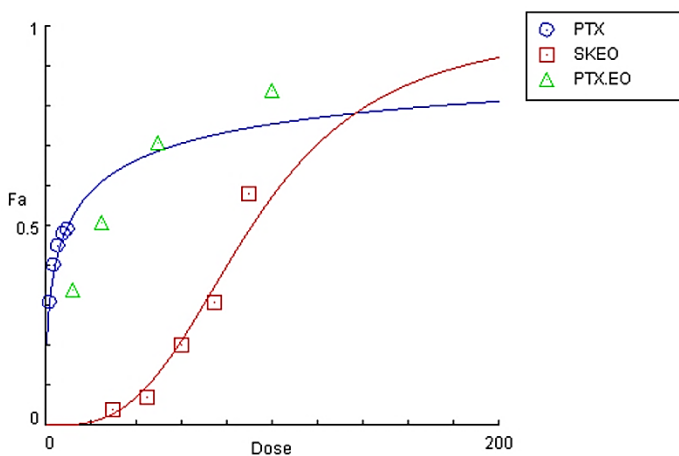
Figure S1. a: Cytotoxicity of TPGS and Paclitaxel (+TPGS) against MCF-7/PTX cells after 24 h **b:** Cytotoxicity of SKEO against MCF-7/PTX cells after 24 h

CI Data for Non-Constant Combo: PTX.EO (PTX+SKEO)

Dose PTX	Dose SKEO	Effect	CI
1.25	11.25	0.34	0.65428
2.5	22.5	0.51	0.48000
5.0	45.0	0.71	0.45306
10.0	90.0	0.84	0.61725

b

Dose-Effect Curve



c

Combination Index Plot

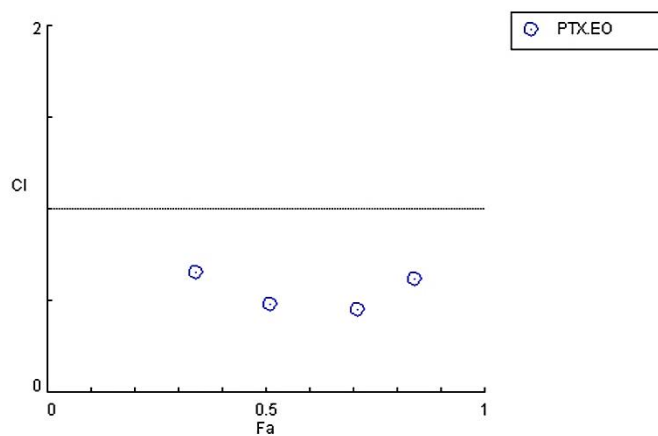


Figure S2. a. Combination Indices calculated by CompuSyn software. b. Dose-effect curve of PTX, SKEO and their combinations c. Combination index plot of PTX and SKEO combination

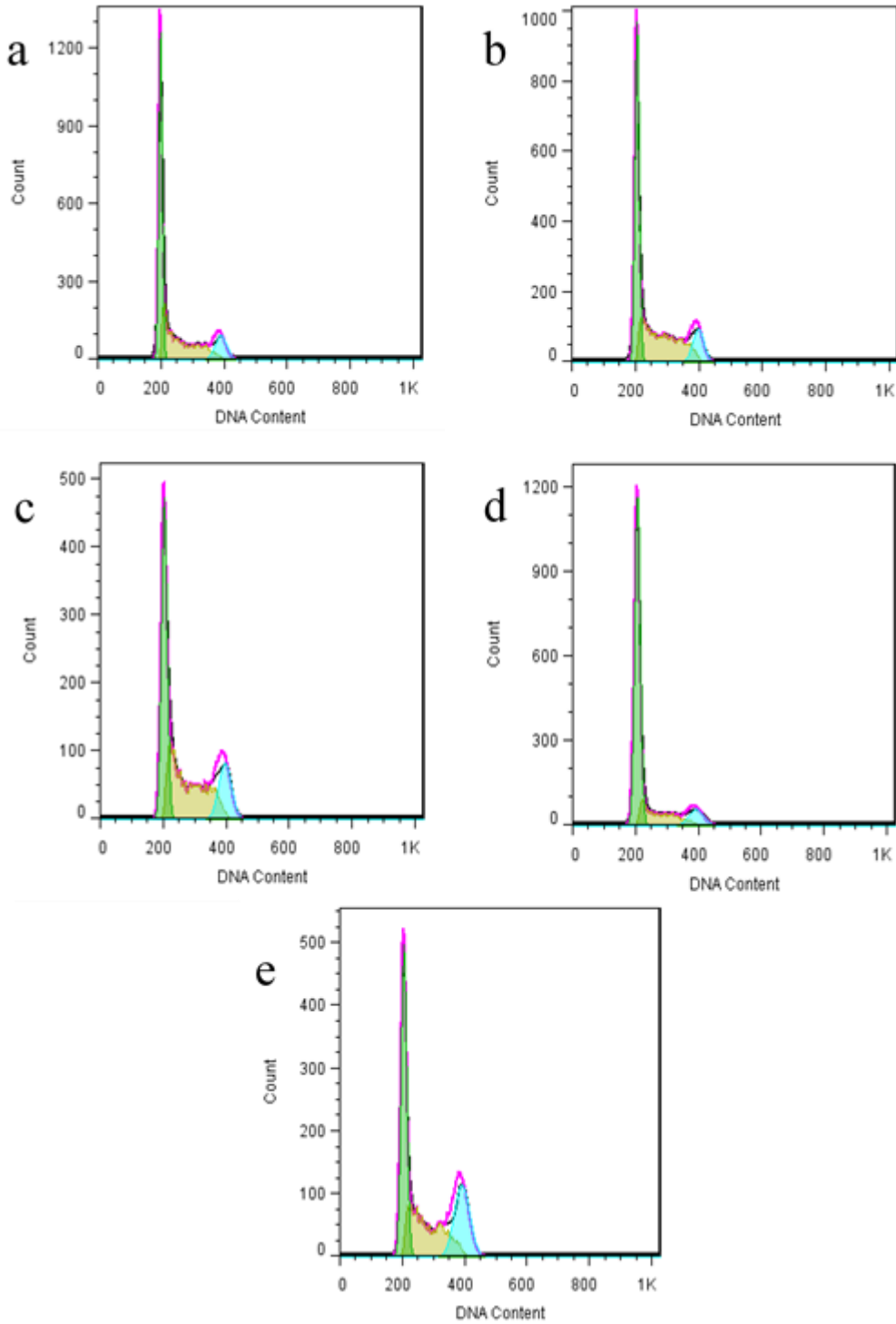


Figure S3. Flow cytometry analysis of cell cycle of MCF-7/PTX cells after 72 h treatment (a) Control, (b) SKEO-NE, (c) PTX (+TPGS), (d) Combination, (e) PTX-NE

Table S1. Physical parameters correlated to the long term stability of PTX-NE

	Mean droplet size (nm)	PDI	Zeta potential (mV)
At preparation time	93.6 ± 4.2	0.01 ± 0.002	-41.8 ± 0.9
After 3 months storage	96.5 ± 0.1	0.004 ± 0.0001	-39.9 ± 2.3

PDI: Polydispersity Index