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Supplementary Materials

Article

Evaluation of the PEG Density in the PEGylated Chitosan Nanoparticles as a Drug Carrier for Curcumin and Mitoxantrone

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Table S1. Supplemental data for calculating the combination index

Sample	P(MTO)/Q(CUR)	EC_{50} (μg/mL)	R square	CI
Free MTO	-	2.830	0.922	-
Free CUR	-	28.64	0.976	-
Combination	1/1	7.226	0.948	1.403
Combination	1/1.5	7.569	0.937	1.228
Combination	1/2	4.460	0.963	0.6291
PCCM1	1/1.66	24.39	0.952	-
PCCM2	1/1.72	21.30	0.948	-
PCCM3	1/1.925	14.57	0.968	-

Table S2. Data for plotting the isobole

CUR			**MTO**			**Addition effect**	**Addition dose**	**Dose pair**
$\ln\frac{P_x}{1-P_x} = 4.613 - 3.223x$			$\ln\frac{P_x}{1-P_x} = 0.682 - 1.552x$			**$(Px)_C+(Px)_M$**	**($Dose_C+Dose_M$) (μg/mL)**	**($Dose_C$,$Dose_M$) (μg/mL)**
$(1\text{-}P_x)_C$	X_C	$Dose_C$ (μg/mL)	$(1\text{-}P_x)_M$	X_M	$Dose_M$ (μg/mL)			
0%	-	0	50%	0.4393	2.750	50%	2.750	(0,2.750)
10%	0.7495	5.617	40%	0.1781	1.507	50%	7.124	(5.617,1.507)
20%	1.001	10.03	30%	-0.1065	0.7825	50%	10.81	(10.03,0.7825)
30%	1.168	14.74	20%	-0.4538	0.3517	50%	15.09	(14.74,0.3517)
40%	1.305	20.20	10%	-0.9763	0.1056	50%	20.31	(20.20,0.1056)
50%	1.431	27.00	0%	-	0	50%	27.00	(27.00,0)

Notes: Where "x" is a drug log10 dose (CUR or MTO); "P_x" is cell viability at log10 dose; $(1\text{-}P_x)$ is the cell death at log10 dose.

Dose pairs ($Dose_C$ and $Dose_M$) that plotted as points on the isobole (Figure 7.2D) represented the combination doses to produce a total 50% of maximum effect. The slope and the intercept of the equation were derived from the dose-effect curves of free CUR and free MTO (Figure 7.2A,B).