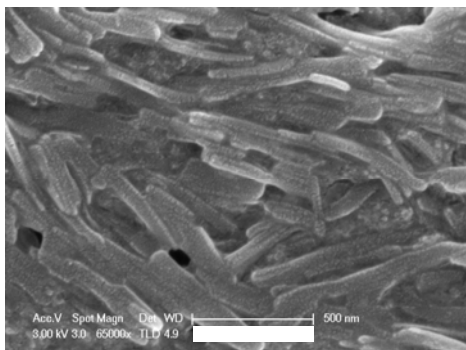
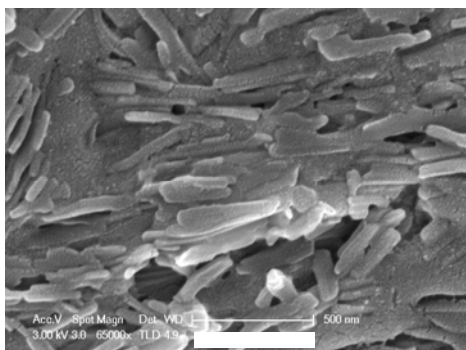


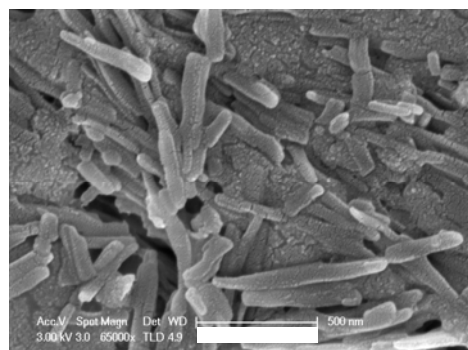
**pH 7.4**



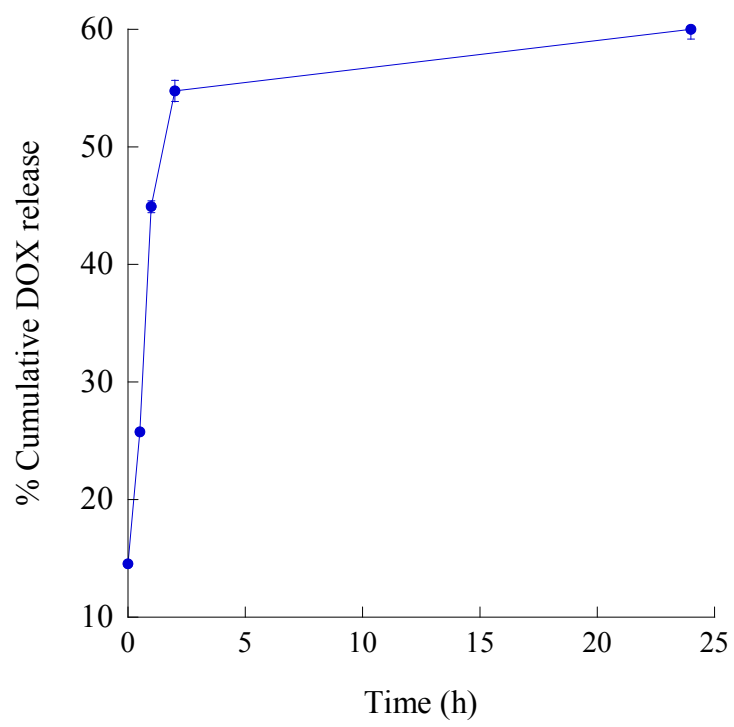
**pH 6.0**



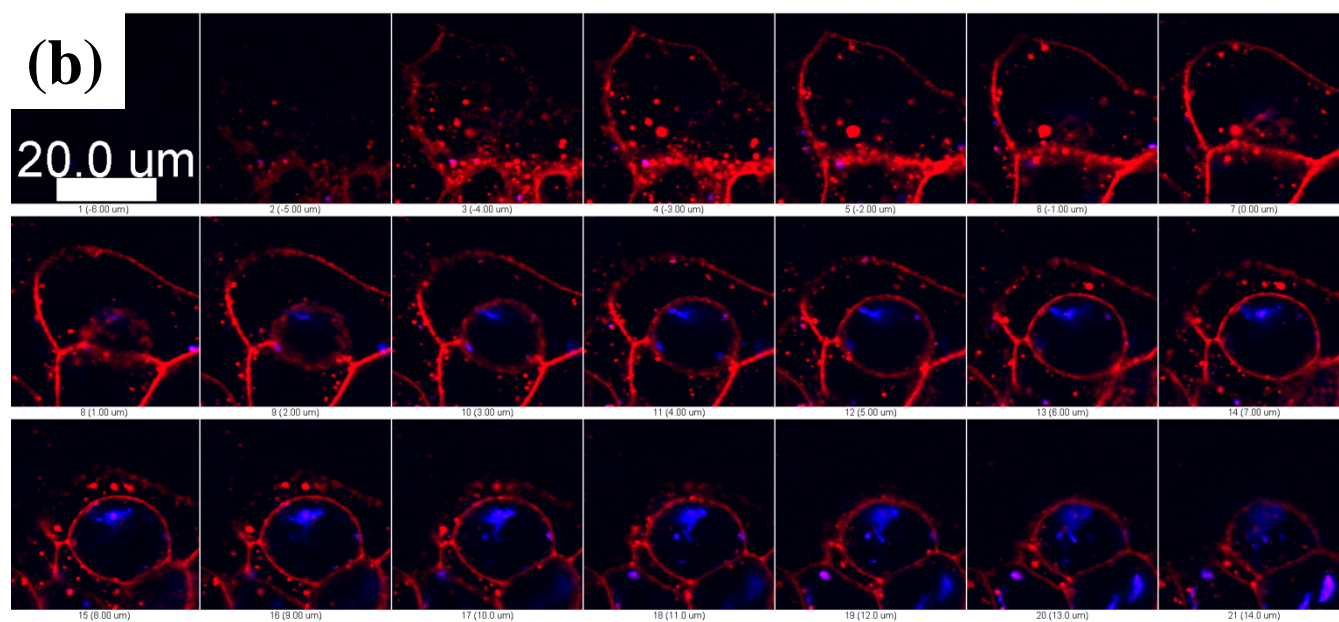
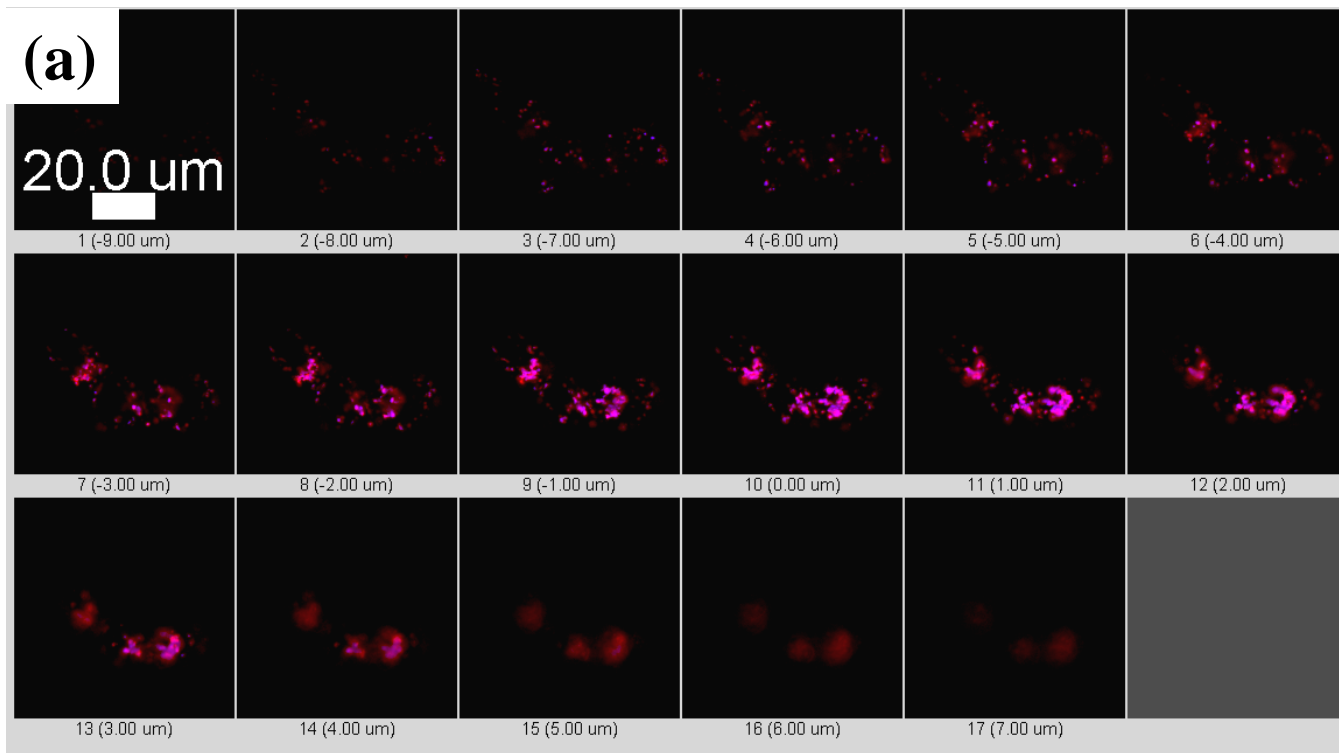
**pH 4.5**



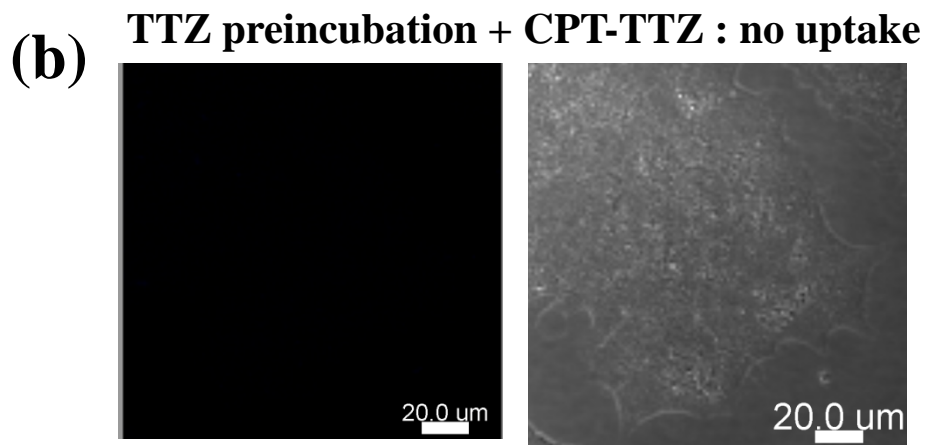
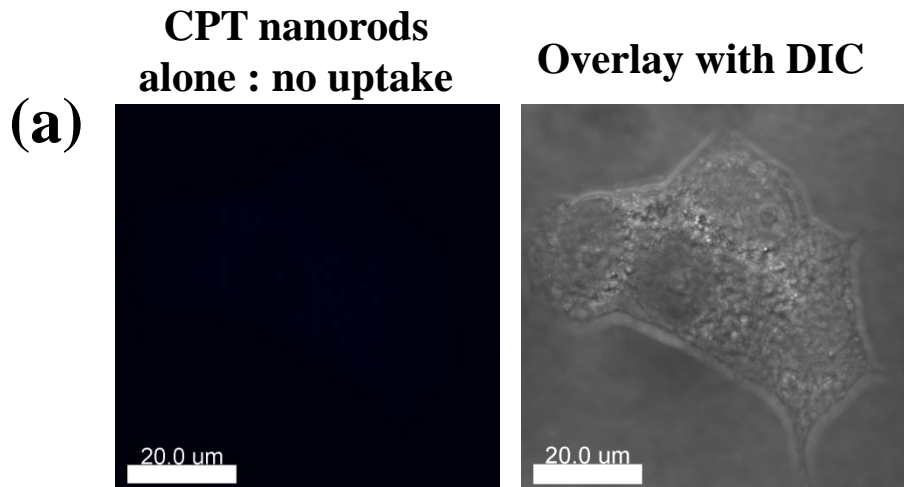
**SI Figure 1**



**SI Figure 2**

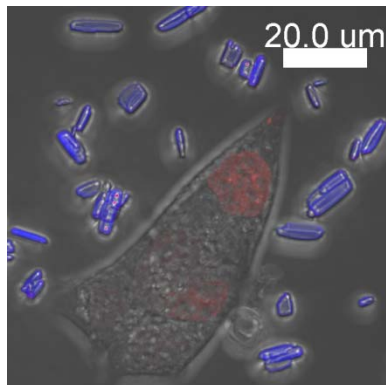


**SI Figure 3**

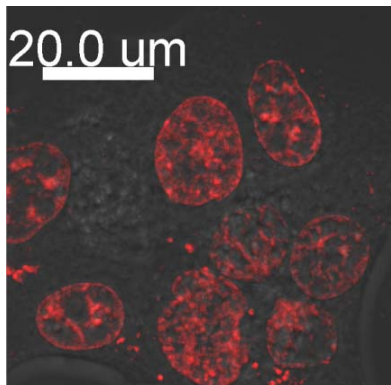


**(c) Simultaneous treatments: CPT in DMSO + TTZ solution + free DOX**

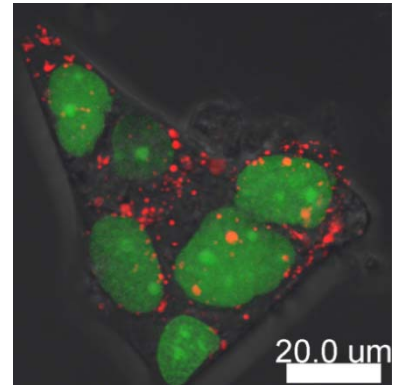
**Blue CPT : no uptake**

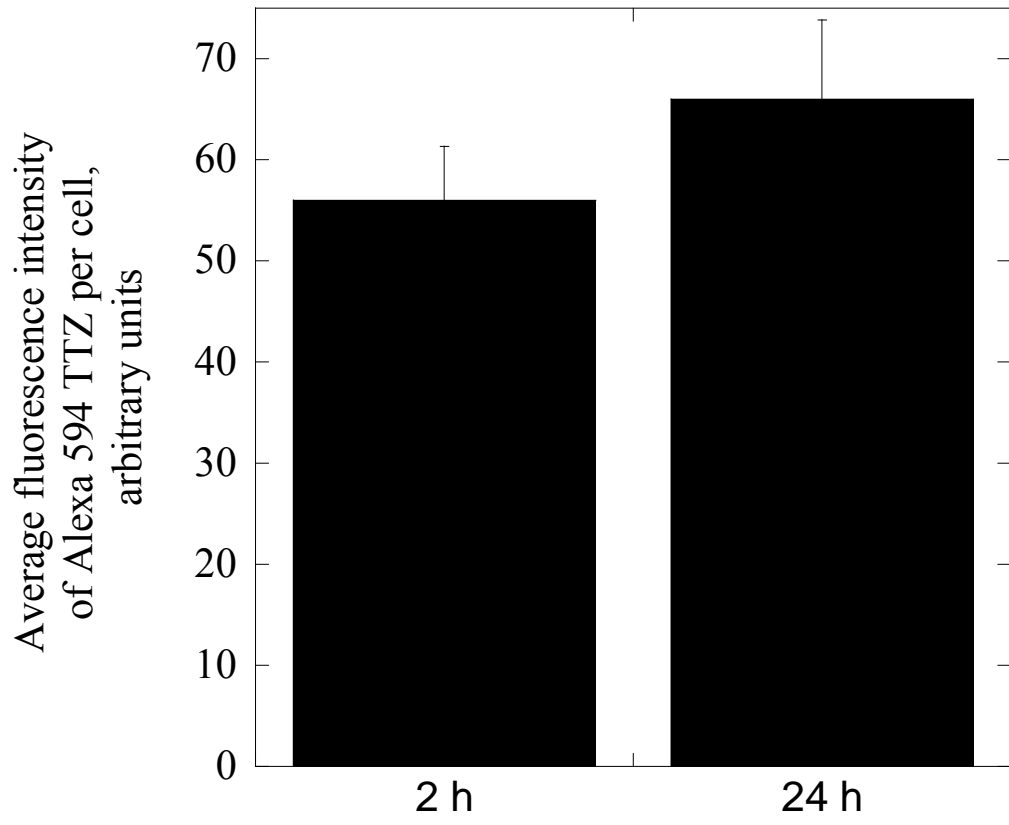


**Red DOX : nucleus**

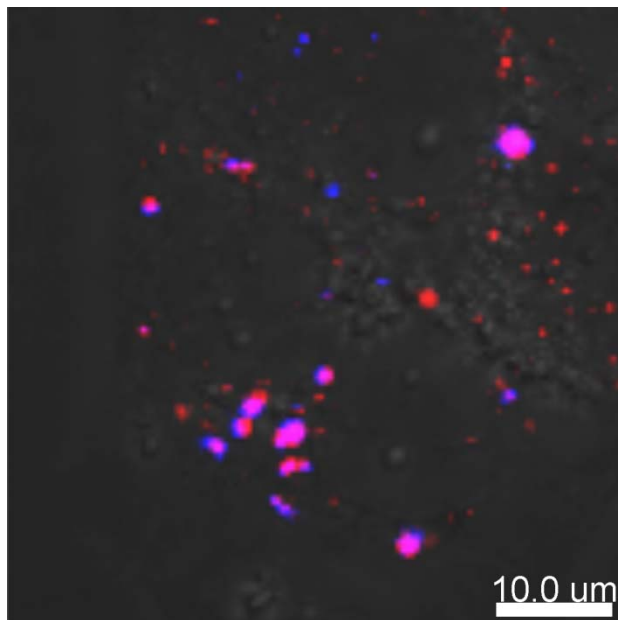
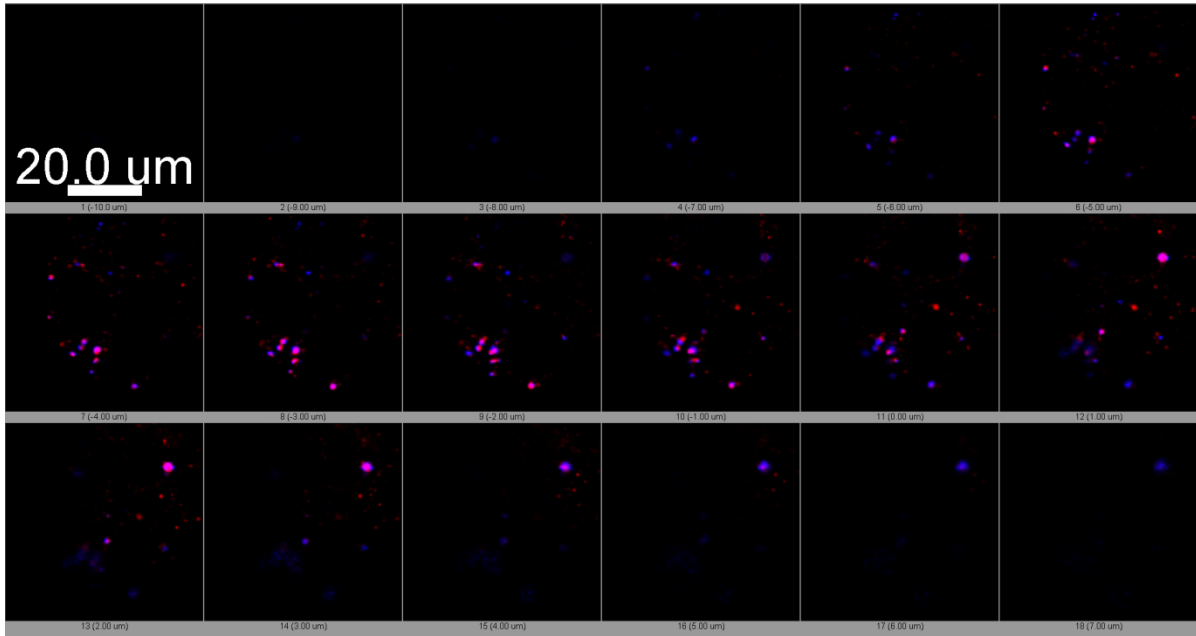


**Red Alexa 594 TTZ : cytoplasm; not in the plasma membrane**  
**Green Nucleus**

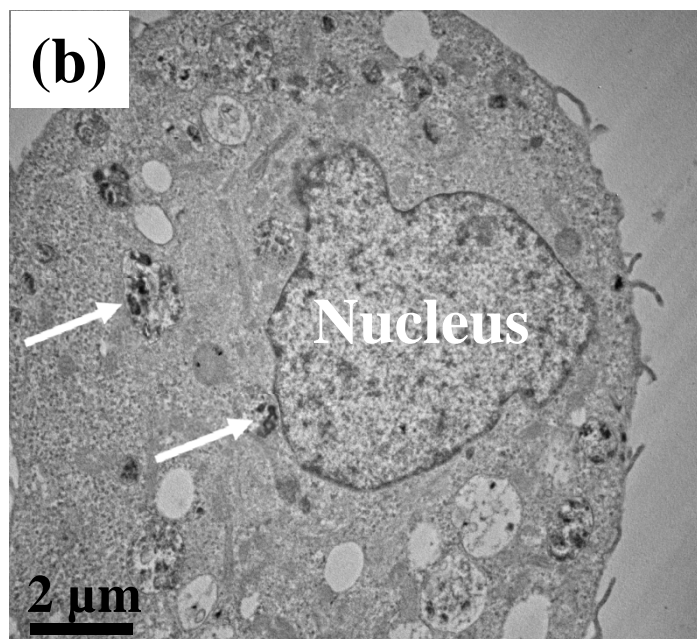
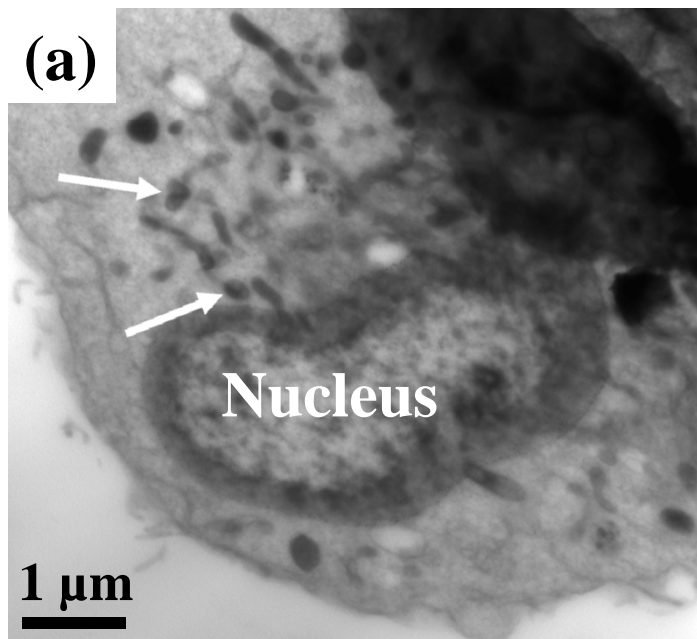




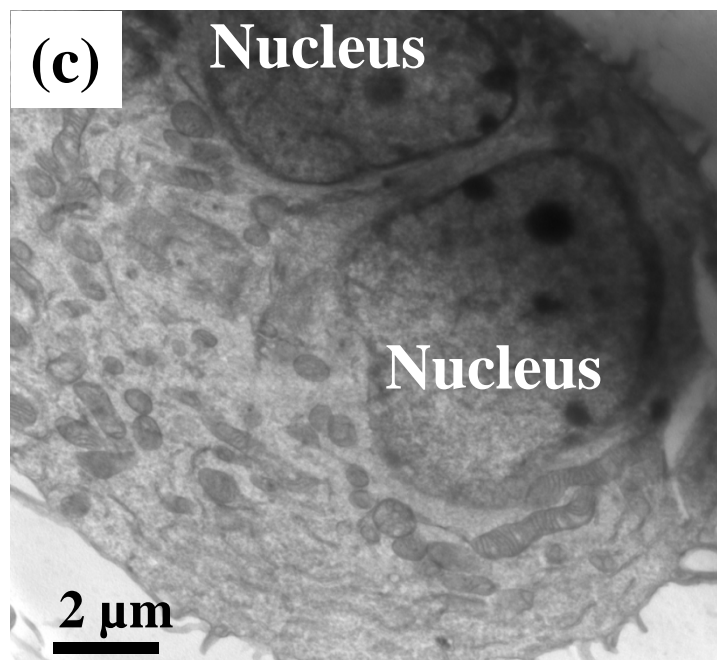
**SI Figure 5**



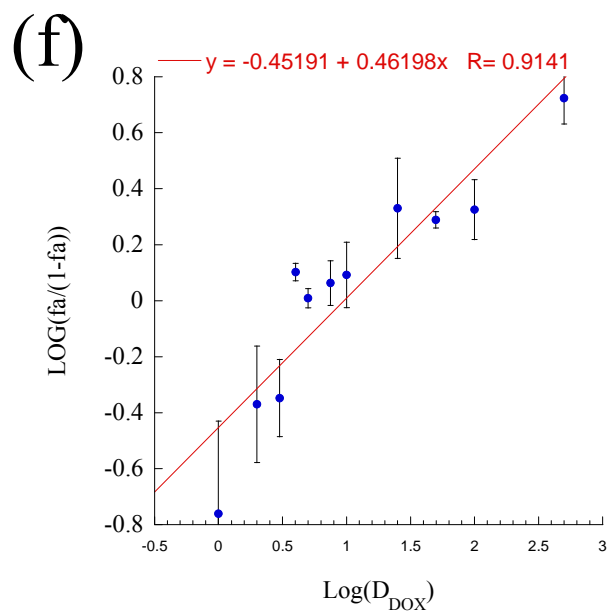
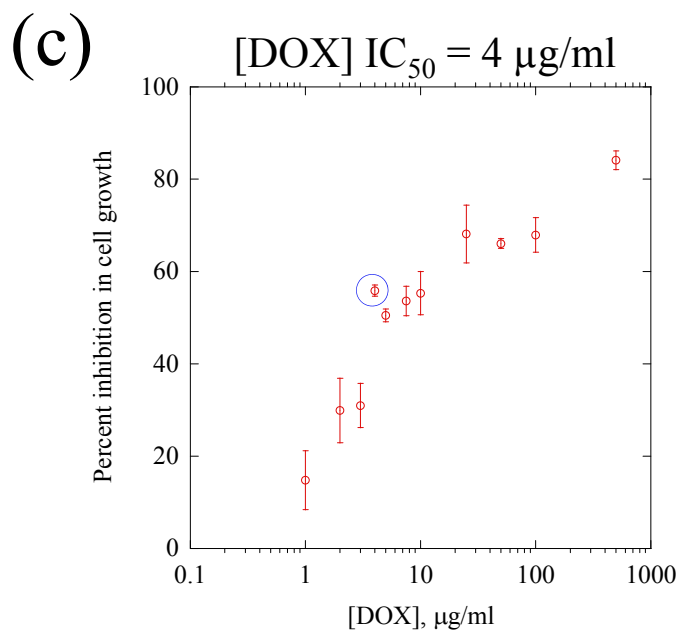
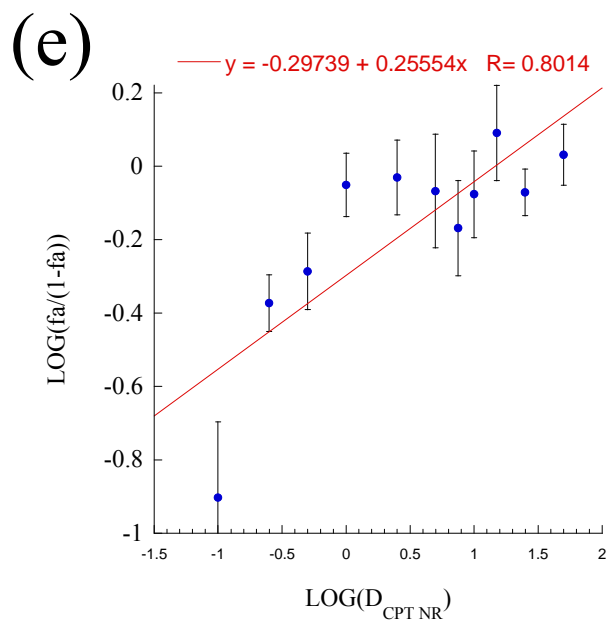
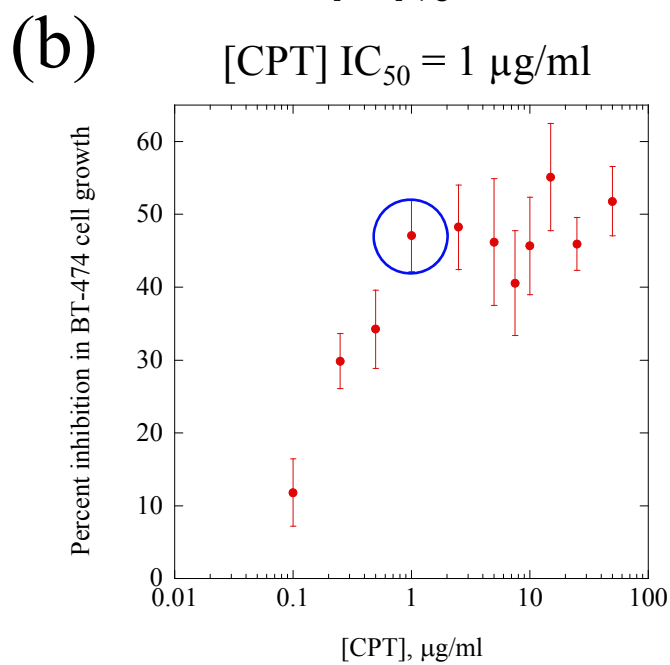
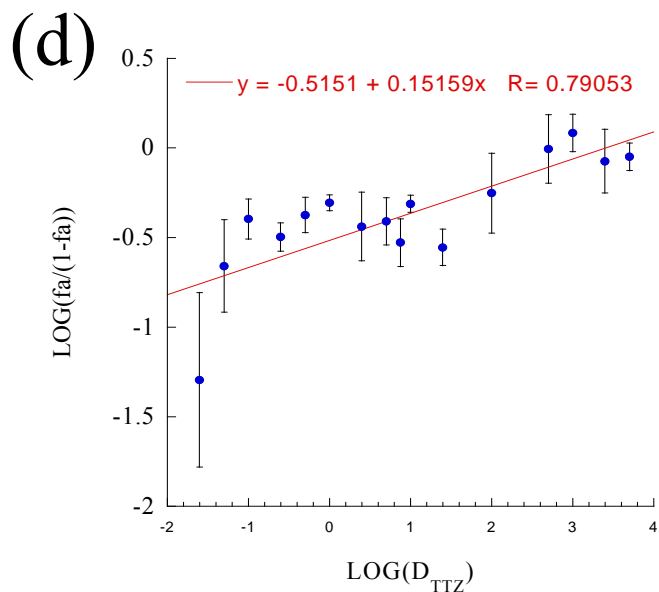
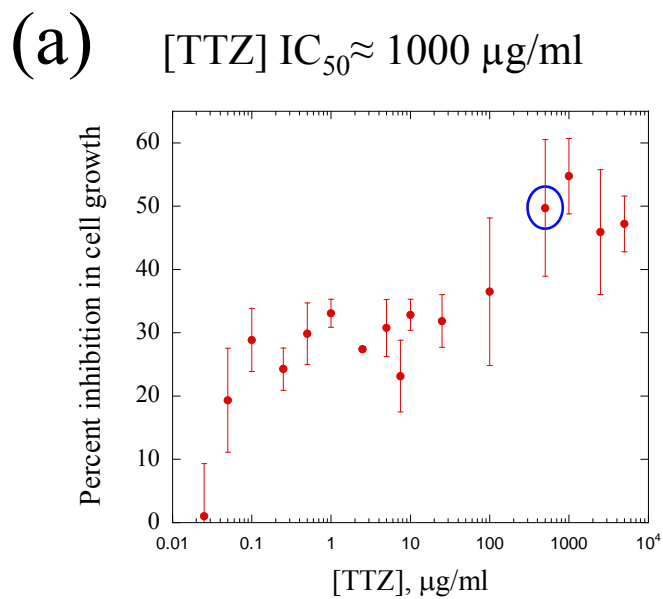
**SI Figure 6**



**BT-474 cell : PBS treated**

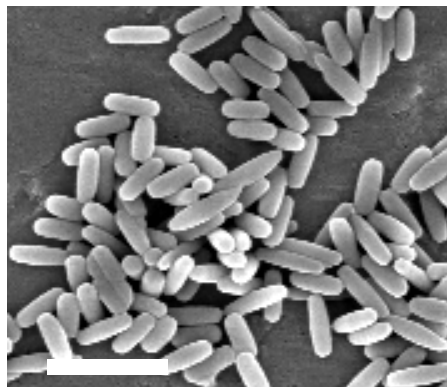


**SI Figure 7**

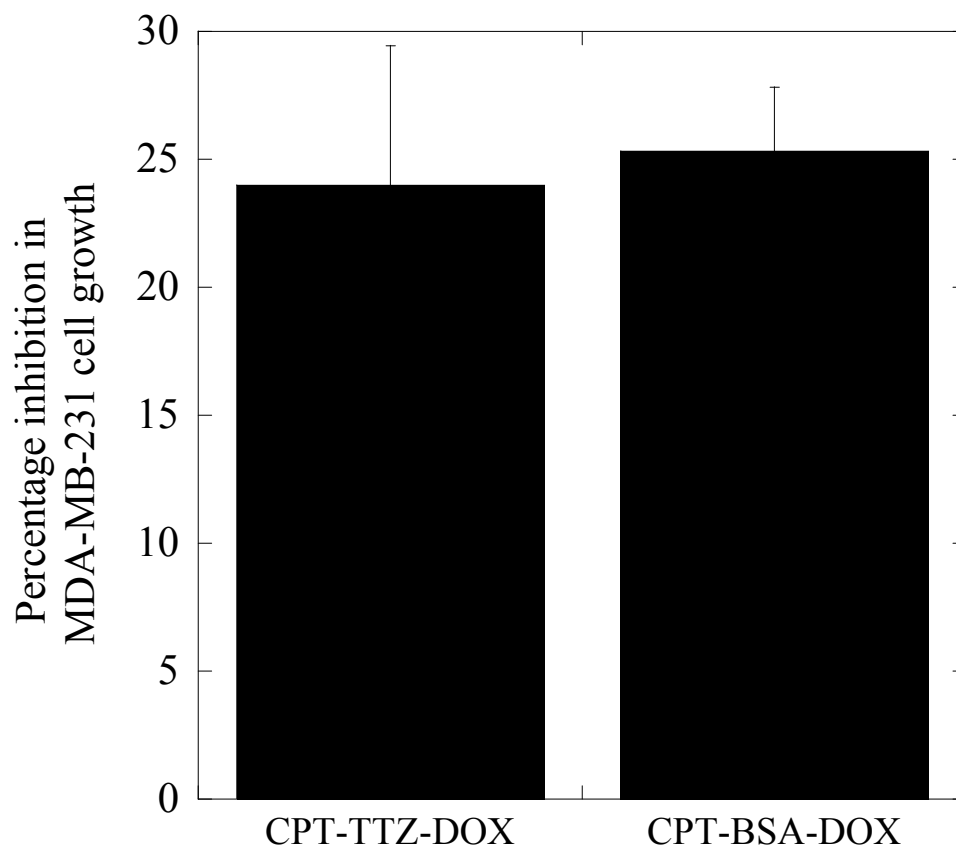




(a)



(b)

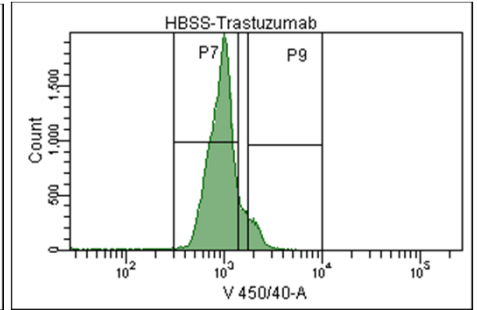
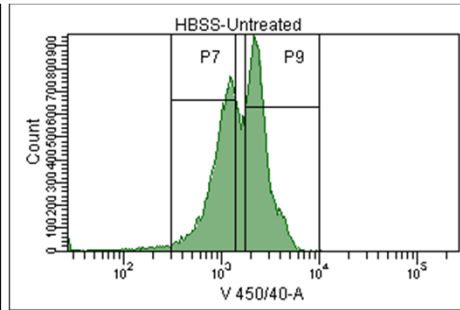
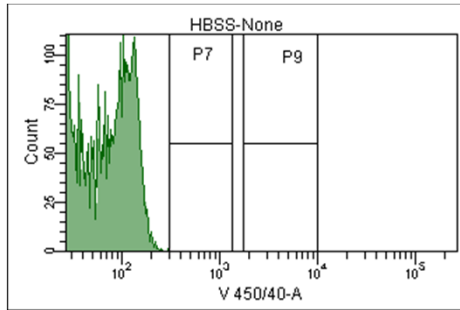


SI Figure 9

Background: cells without dye

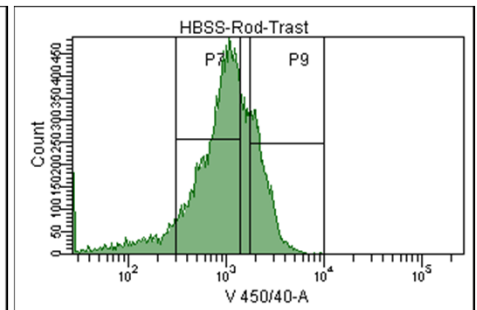
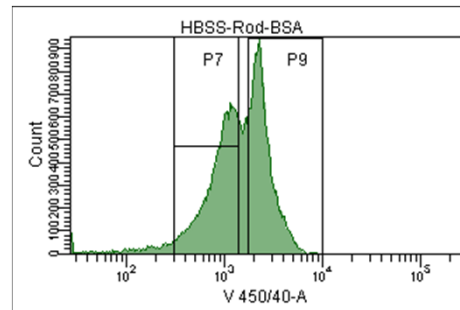
BT-474 cells: PBS treated

TTZ treated



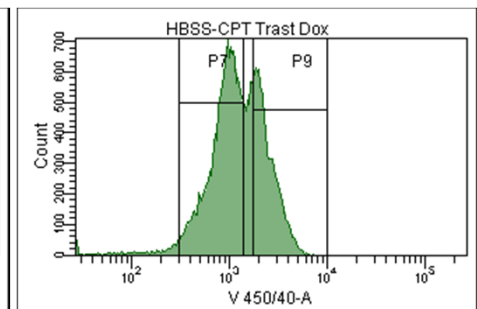
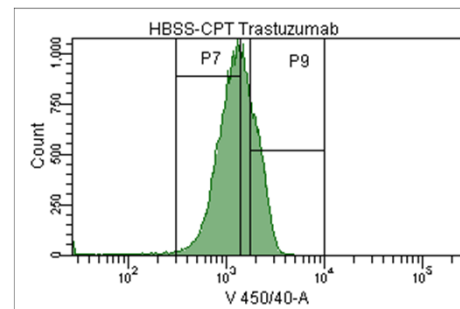
Polystyrene nanorod -BSA

Polystyrene nanorod -TTZ

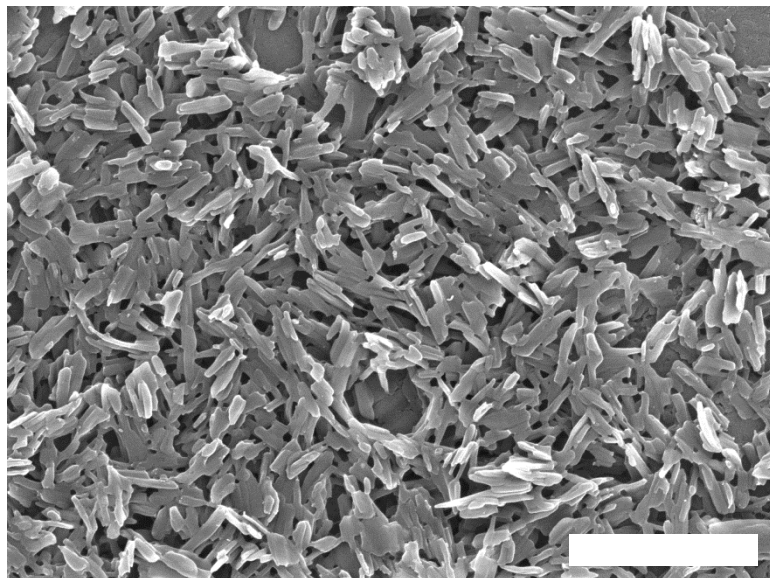


CPT-TTZ

CPT-TTZ-DOX



SI Figure 10



**SI Figure 11**

<b>Initial CPT, <math>\mu\text{g}</math></b>	<b>CPT after TTZ adsorption, <math>\mu\text{g}</math></b>	<b>Initial BSA or TTZ, <math>\mu\text{g}</math></b>	<b>BSA adsorbed on CPT, <math>\mu\text{g}</math></b>	<b>TTZ adsorbed on CPT, <math>\mu\text{g}</math></b>	<b>Initial DOX loaded to 500<math>\mu\text{g}</math> CPT of CPT-TTZ, <math>\mu\text{g}</math></b>	<b>CPT after DOX adsorption to CPT-TTZ, <math>\mu\text{g}</math></b>	<b>DOX adsorbed on CPT-TTZ, <math>\mu\text{g}</math> (loading efficiency, %)</b>
1000	601.6 $\pm$ 10.7	100	72.6 $\pm$ 8.4	97.7 $\pm$ 2.5	1000	353 $\pm$ 58.2	924.2 $\pm$ 8.2 (92.4 $\pm$ 0.8%)
<b>Zeta potential of nanoparticles in PBS, mV</b>							
<b>CPT</b>		<b>CPT-TTZ</b>		<b>CPT-TTZ-DOX</b>			
- 25.1 $\pm$ 3.8		-7.5 $\pm$ 1.3		-4.8 $\pm$ 0.22			

**SI Table I**

<b>CPT-TTZ- DOX</b>	<b>TTZ</b>	<b>DOX</b>	<b>CPT- BSA- DOX</b>	<b>CPT- BSA+PS Rod TTZ +DOX</b>	<b>CPT- DMSO+ TTZ+DOX</b>	<b>CPT- TTZ</b>	<b>Topotecan+ TTZ+DOX</b>
p-value compared with	0.016	0.023	0.045	0.052	0.052	0.022	0.052

**SI Table II**

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<b>parameter</b>	<b>TTZ</b>	<b>CPT</b>	<b>DOX</b>
m	0.15	0.26	0.46
D <sub>m</sub> (μg/ml)	2500	14.6	9.5

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**SI Table III**