

SUPPLEMENTARY INFORMATION

Doxorubicin-platinum conjugate system: impacts on PI3K/AKT actuation and apoptosis in breast cancer cells

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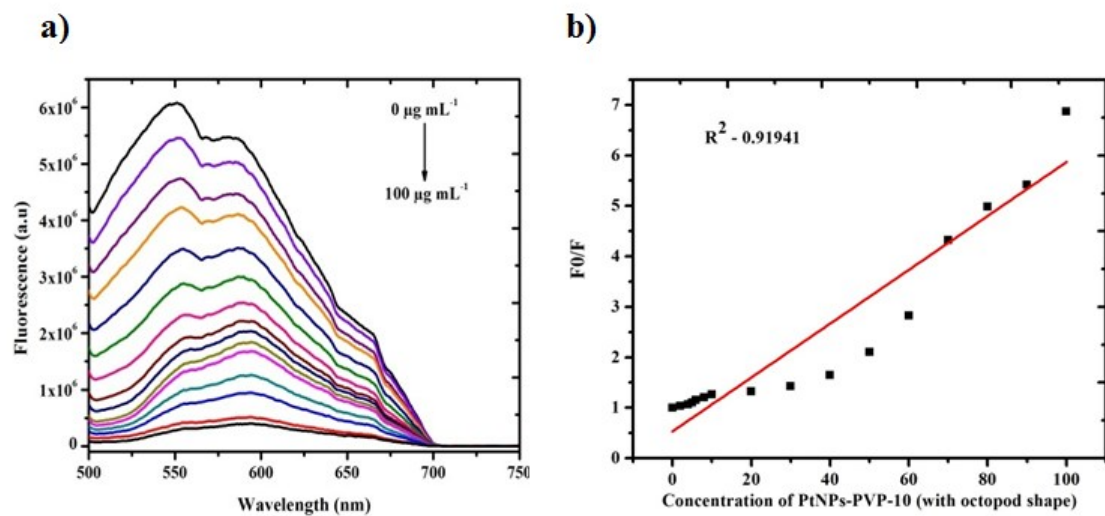
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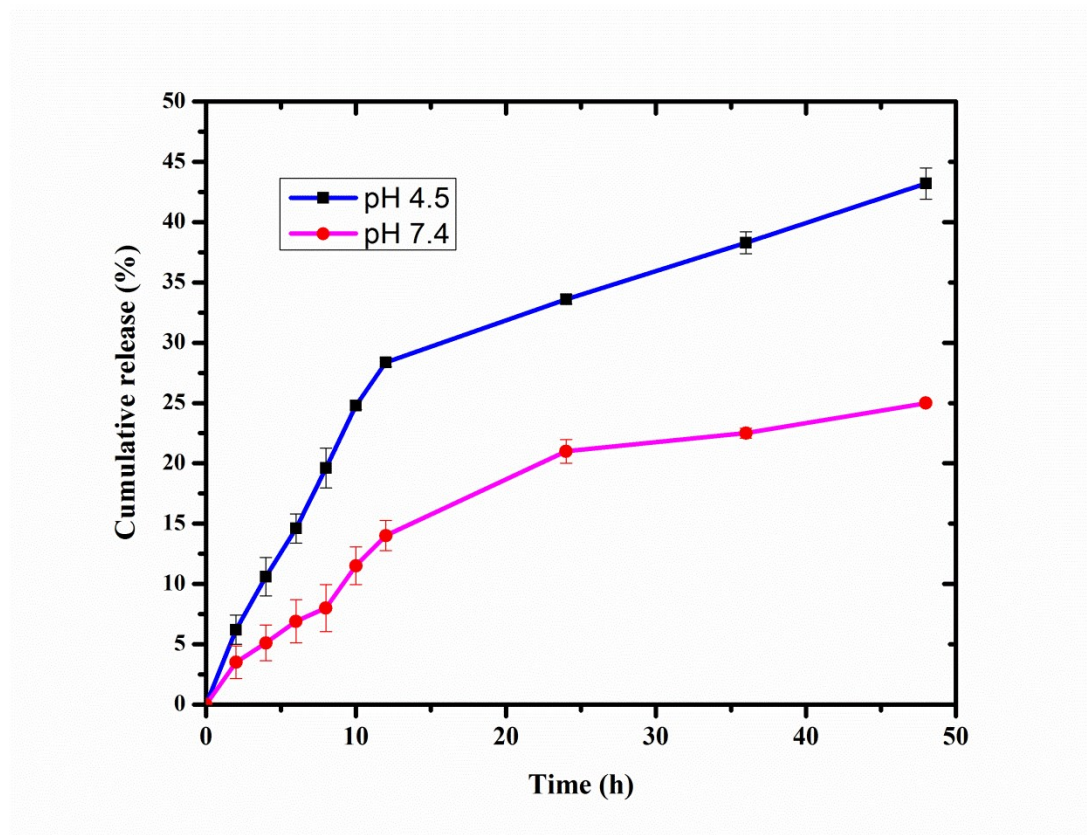
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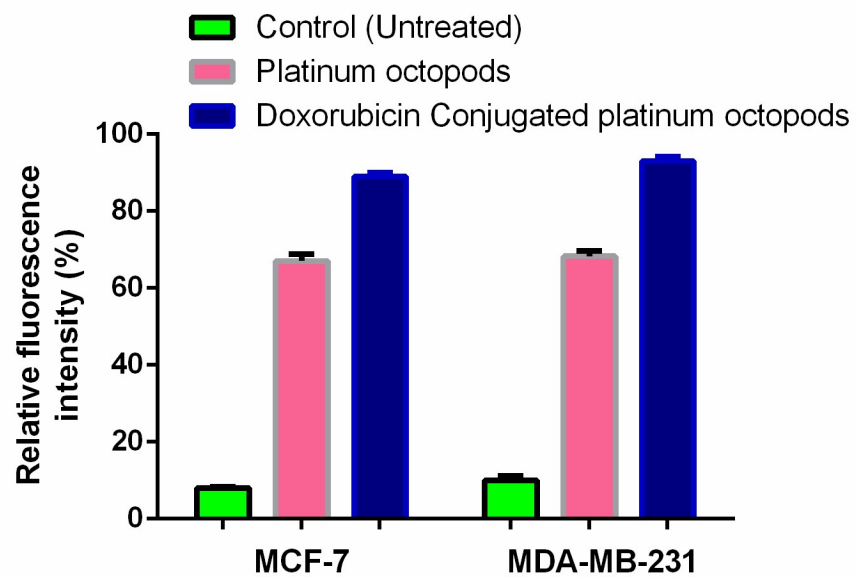
Supplementary Fig. 1 Doxorubicin-platinum conjugate system. (a) Fluorescence quenching studies of doxorubicin ($10 \mu\text{g mL}^{-1}$) at static concentration and addition of platinum octopods at different concentrations ($0 - 100 \mu\text{g mL}^{-1}$). (b) Stern-Volmer plot depicting the interaction of doxorubicin and platinum octopods.



Supplementary Fig. 2 *In vitro* drug release kinetics



Supplementary Fig. 2 Relative fluorescence intensity (%) for ROS staining upon treatment with DCFH-DA dye



Supplementary Table. 1 Primers used in the study

S.No	Gene	Primers used
1	AKT	F:5'-CAGTGGACCACCTTCGTTGA-3' R:5'-ACAGAGTCGGCCACTGATTG-3'
2	PI3K	F:5'-GGAAGCCCTCCAGAAAGGTC-3' R:5'-GCACTCGGAAGTTGAATGGC-3'
3	PTEN	F:5'-TCCCAGACATGACAGCCATC-3' R:5'-TGTCTTTCAGCACAACTTACTACA-3'
4	Caspase 9	F:5'-TGAGACCCTGGACGACATCT-3' R:5'-TCCCTTTCACCGAAACAGCA-3'
5	Caspase 8	F:5'-GCGGAGGGTCGATCATCTAT-3' R:5'-TCCTTCTCCCAGGATGACCC-3'
6	Caspase 3	F:5'-GTGCTATTGTGAGGCGGTTG-3' R:5'-TCCAGAGTCCATTGATTGCTT-3'
7	BAX	F:5'-AGCAAACCTGGTGCTCAAGGC-3' R:5'-CAGGGACATCAGTCGCTTCAG-3'
8	BCL-2	F:5'-F-CTTTGAGTTCGGTGGGGTCA-3' R:5'-GGGCCGTACAGTTCCACAAA-3'
9	β -actin	F:5'-TGGAACGGTGAAGGTGACAG-3' R:5'-AACAACGCATCTCATATTTGGAA-3'

Supplementary Table. 2 *In vitro* cytotoxicity studies

S.No	Cells used	IC ₅₀ value (µg mL ⁻¹)	
		PtNPs	DOX@PtNPs
1	MCF-7	67.75	2.099
2	MDA-MB-231	7.357	3.196
3	HEK-293	80.10	9.036