

## **Engineering Liposomal Nanoparticles of Cholesterol-Tethered Amphiphilic Pt(IV) Prodrugs with Prolonged Circulation Time in Blood**

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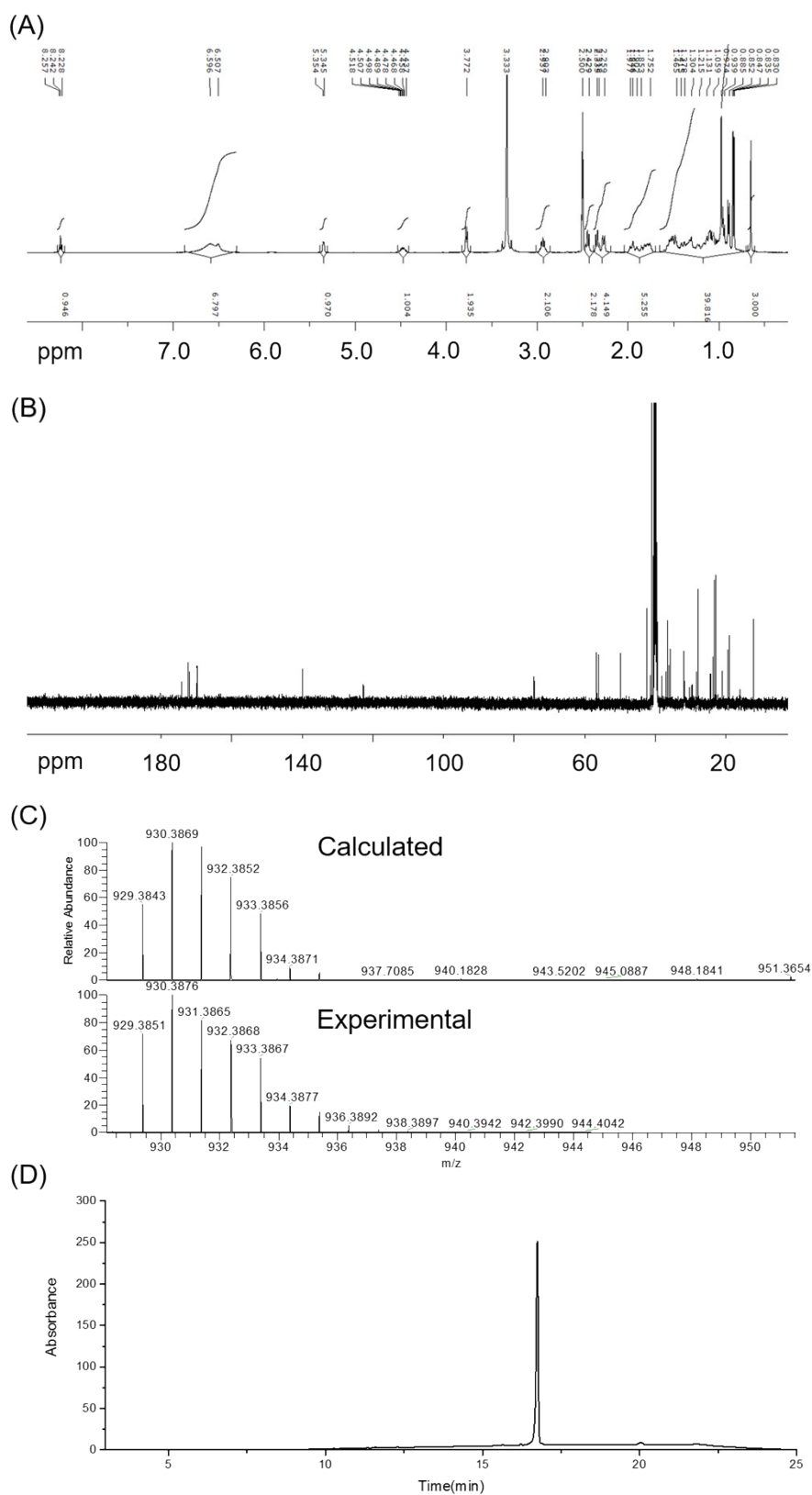


Figure S1. Characterization of the cholesterol-tethered Pt(IV) prodrug (**1**): (A)  $^1\text{H}$  NMR spectrum of **1** in  $\text{DMSO-d}_6$ ; (B)  $^{13}\text{C}$  NMR spectrum of **1** in  $\text{DMSO-d}_6$ ; (C) HR-ESI-MS of **1**; (D) HPLC analysis of **1**.

Trial No.	DOPC (mg)	DSPE-PEG <sub>2000</sub> (mg)	1	Size (nm)	Zeta-potential (mV)	[Pt] ( $\mu$ M)	EE (%)	LC (%)
1	2.5	0.25	0.5	75.3	-6.61	213	79.2	12.2
2	2.5	0.25	1	86.8	-6.08	276	51.3	13.7
3	2.5	0.25	2	101.6	-3.20	712	66.1	27.9
4	2.5	0.25	3	137.5	-6.69	725	44.9	23.4
5	2.5	0.25	4	128.8	-2.21	713	33.1	19.6

Table S1. Formulation of the liposomal nanoparticles (LNs) (EE: encapsulation efficiency. LC: Loading capacity).

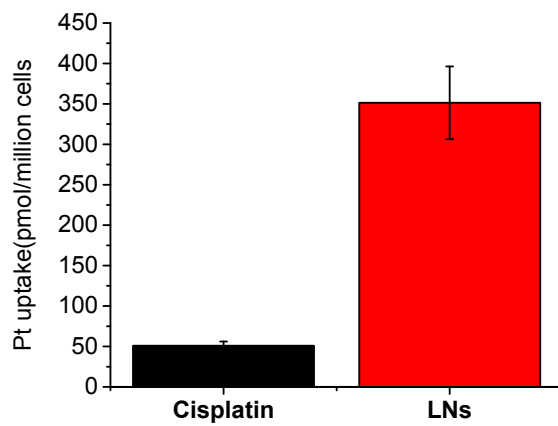


Figure S2. Cellular uptake of cisplatin and LNs in A2780cis cells ([Pt] = 10  $\mu$ M, for 21 hr at 37 °C).

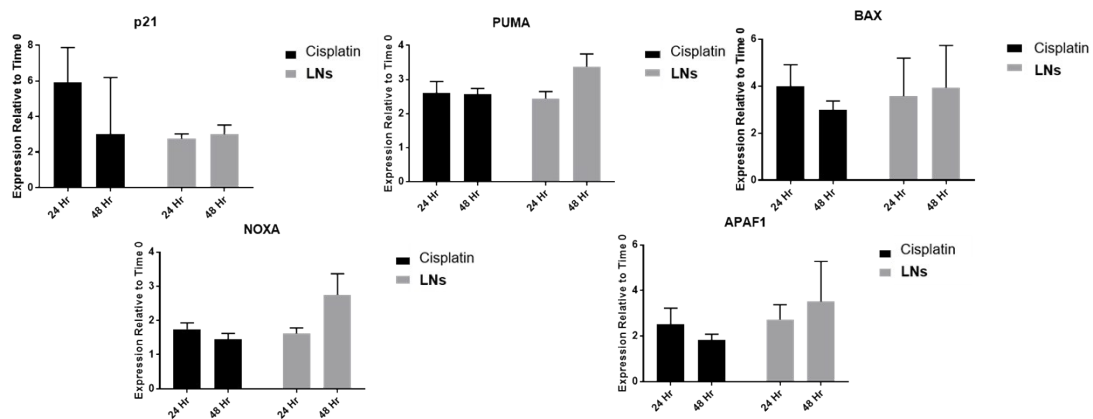


Figure S3. mRNA levels of p21, PUMA, BAX, NOXA, and APARF1 in A2780cis cells treated with cisplatin (8  $\mu$ M) and LNs ([Pt] = 6  $\mu$ M) for 24 hr and 48 hr.