

(Electronic Supplementary Information for *RSC advances*)

A versatile gold cross-linked nanoparticle based on triblock copolymer as the carrier of doxorubicin

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Table S1. Reaction conditions of PCL-Br, PCL-*b*-PDMAEMA-Br and PCL-*b*-PDMAEMA-*b*-PEG.

Sample	Reaction	Monomer	Solvent	Catalyst	Time	M_n^a
					h	g mol ⁻¹
PCL-Br	ROP	ϵ -CL	Toluene	Sn(Oct) ₂	24	6964.8
PCL- <i>b</i> -PDMAEMA-Br	ATRP	DMAEMA	DMF Toluene	CuBr ₂ / Me ₆ TREN	6	9071.9
PCL- <i>b</i> -PDMAEMA- <i>b</i> -PEG	Click chemistry	-	THF	CuBr/ PMDETA	24	14071.9

^a Molecular weight (M_n) was determined by ¹H-NMR.

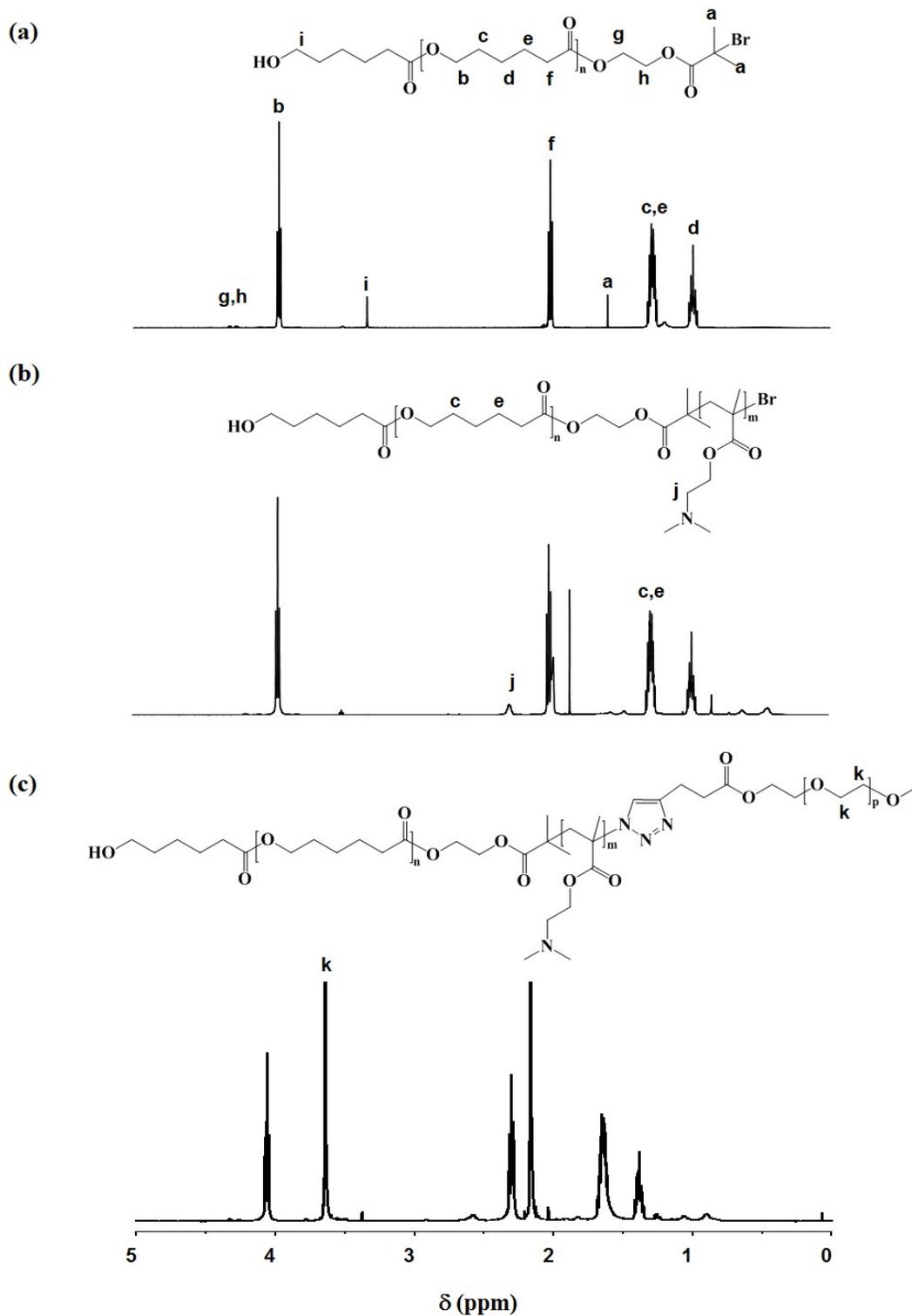


Fig. S1. $^1\text{H-NMR}$ spectrum of PCL-Br (a) PCL-*b*-PDMAEMA-Br (b) and PCL-*b*-PDMAEMA-*b*-PEG (c) in CDCl_3 .

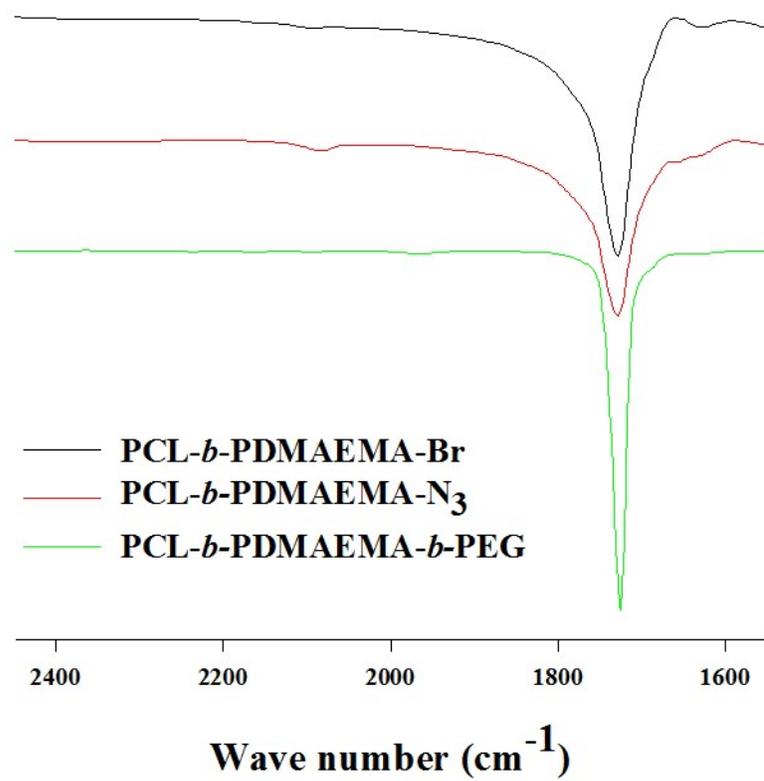


Fig. S2. FT-IR spectra.

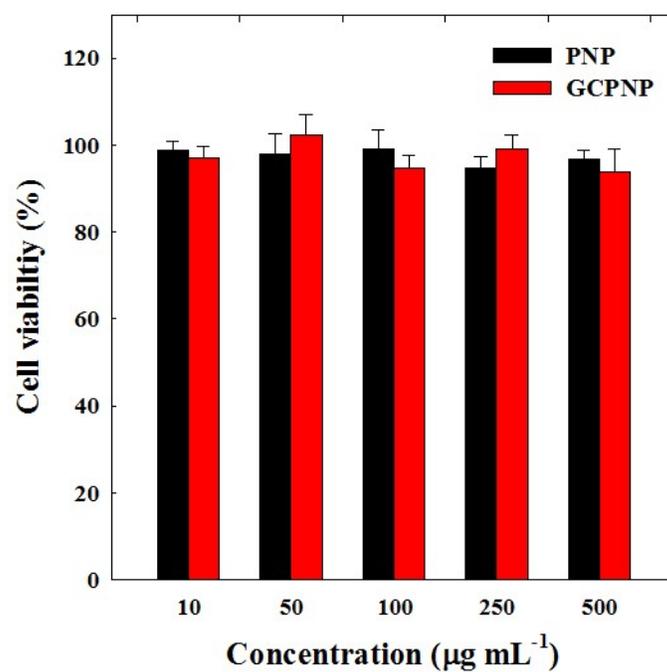


Fig. S3. Cytotoxicity of bare PNPs and GCPNPs with various concentrations after 24h. The error bars in the graph represent standard deviations ($n=5$).