molecules

Supplementary Material

Chitosan, Polyethylene glycol and Polyvinyl Alcohol Modified $MgFe_2O_4$ Ferrite Magnetic Nanoparticles in Doxorubicin Delivery: A comparative Study In Vitro

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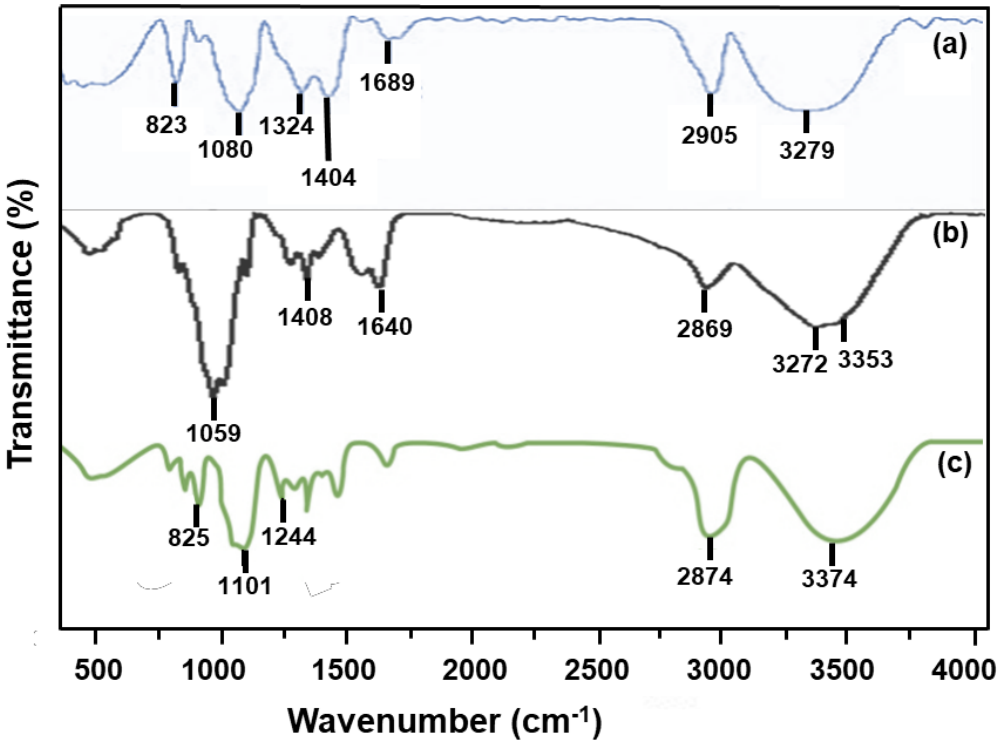

Figure S1. FTIR spectra of (a) Polyvinyl alcohol, (b) Chitosan and (c) Polyethylene glycol

Table S1. Effect of pH and temperature on the size and stability of the DOX-CHI-$MgFe_2O_4$ nanocomplexes.

	Size (nm)	**Zeta Potential (mV)**
pH 4.5	120.9 ± 5.9	-5.1 ± 0.8
pH 6.5	80.3 ± 2.8	-13.1 ± 1.5
pH 7.4	79.9 ± 18.1	-13.5 ± 2.5
4 ˚C	85.6 ± 10.4	-9.4 ± 1.1
25 ˚C	80.1 ± 7.5	14.7 ± 0.5

Table S2. Effect of pH and temperature on the size and stability of the DOX-PVA-$MgFe_2O_4$ nanocomplexes.

	Size (nm)	**Zeta Potential (mV)**
pH 4.5	135.6 ± 20.8	-11.5 ± 6.8
pH 6.5	111.3 ± 15.7	-20.4 ± 3.7
pH 7.4	98.4 ± 34.8	-11.2 ± 0.1
4 ˚C	62.0 ± 1.2	- 14.5 ± 2.8
25 ˚C	77.0 ± 29.7	- 10.6 ± 0.2

Table S3. Effect of pH and temperature on the size and stability of the DOX-PEG-$MgFe_2O_4$ nanocomplexes.

	Size (nm)	**Zeta Potential (mV)**
pH 4.5	104.6 ± 19.2	4.4 ± 0.4
pH 6.5	95.3 ± 9.3	- 14.7 ± 0.2
pH 7.4	80.4 ± 4.6	-15.3 ± 5.4
4 ˚C	123.8 ± 20.7	-4.4 ± 1.4
25 ˚C	82.6 ± 9.2	- 12.6 ± 4.7