Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

Development of Phenyllactic Acid Ionic Liquids and Evaluation of Cytotoxicity to Human Cervical Epithelial Cells

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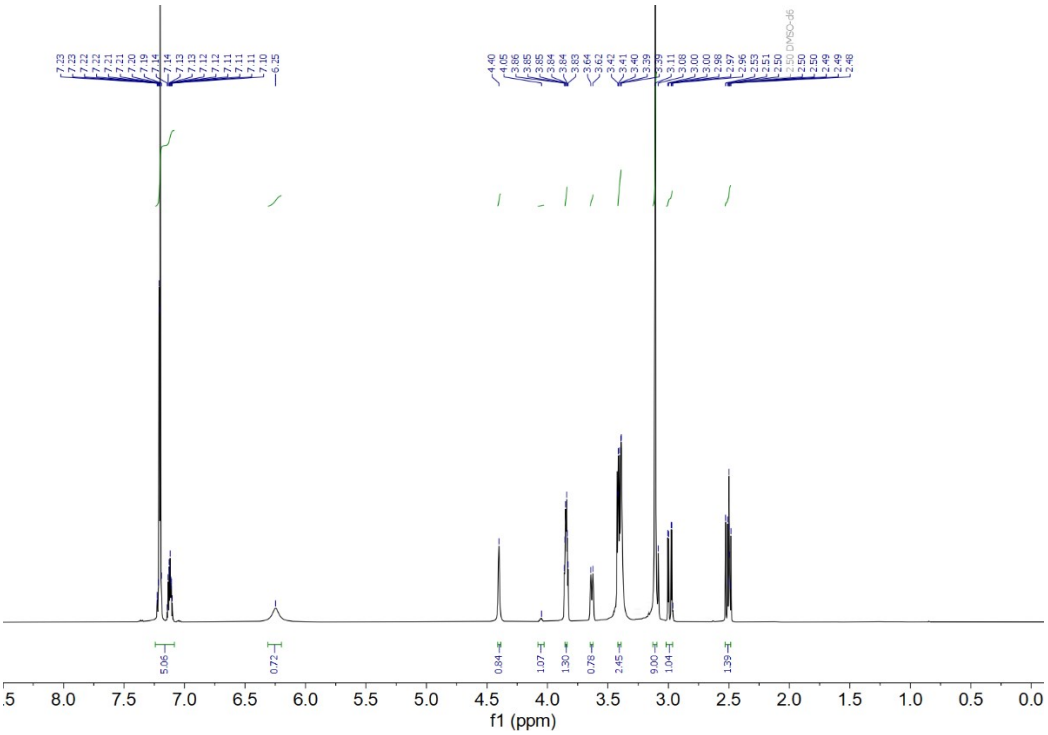

Fig. S1: ^{1}H NMR spectrum of Chol:D-PLA (1:1)

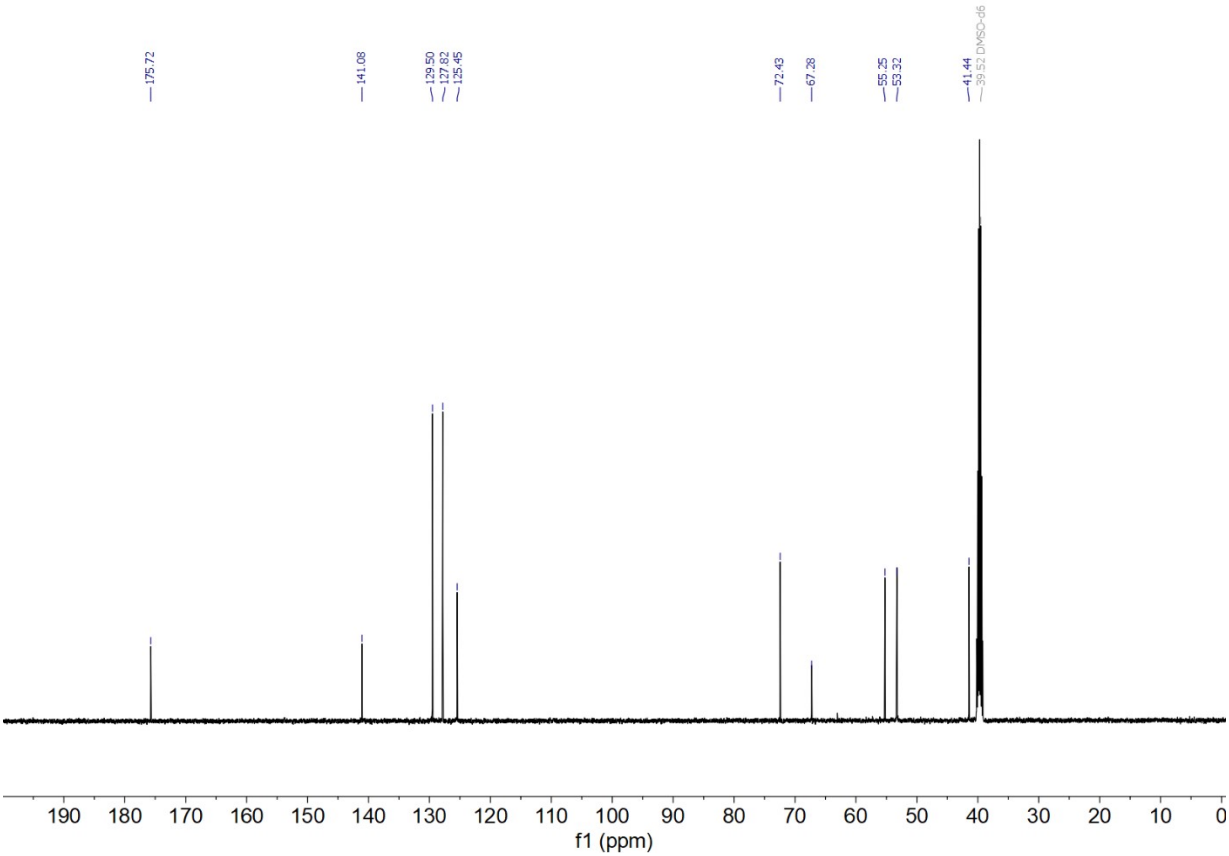

Fig. S2: ^{13}C NMR spectrum of Chol:D-PLA (1:1)

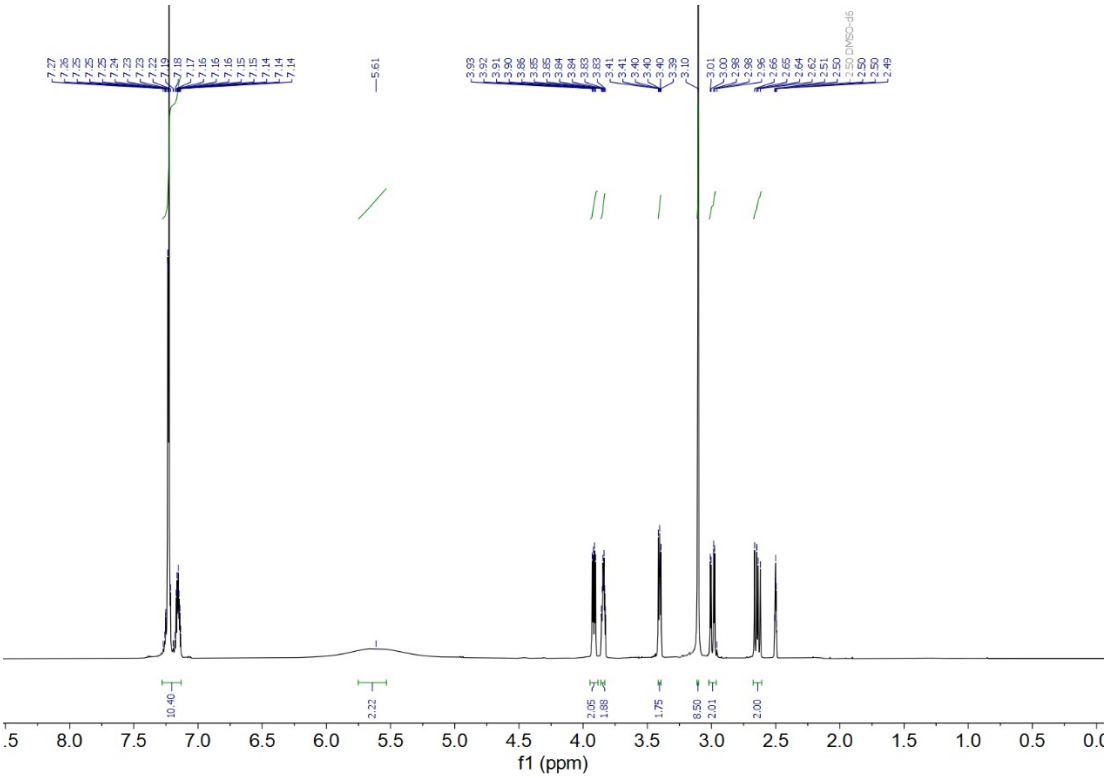

Fig. S3: ^{1}H NMR spectrum of Chol:D-PLA (1:2)

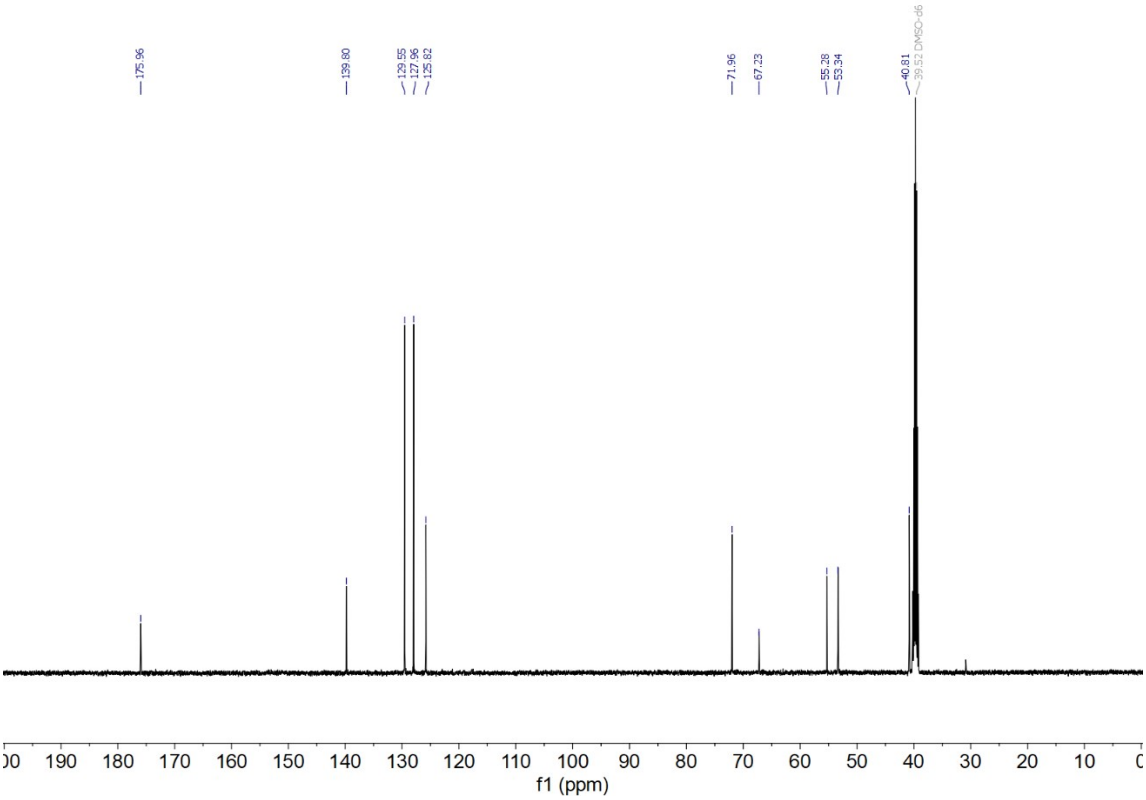

Fig. S4: ^{13}C NMR spectrum of Chol:D-PLA (1:2)

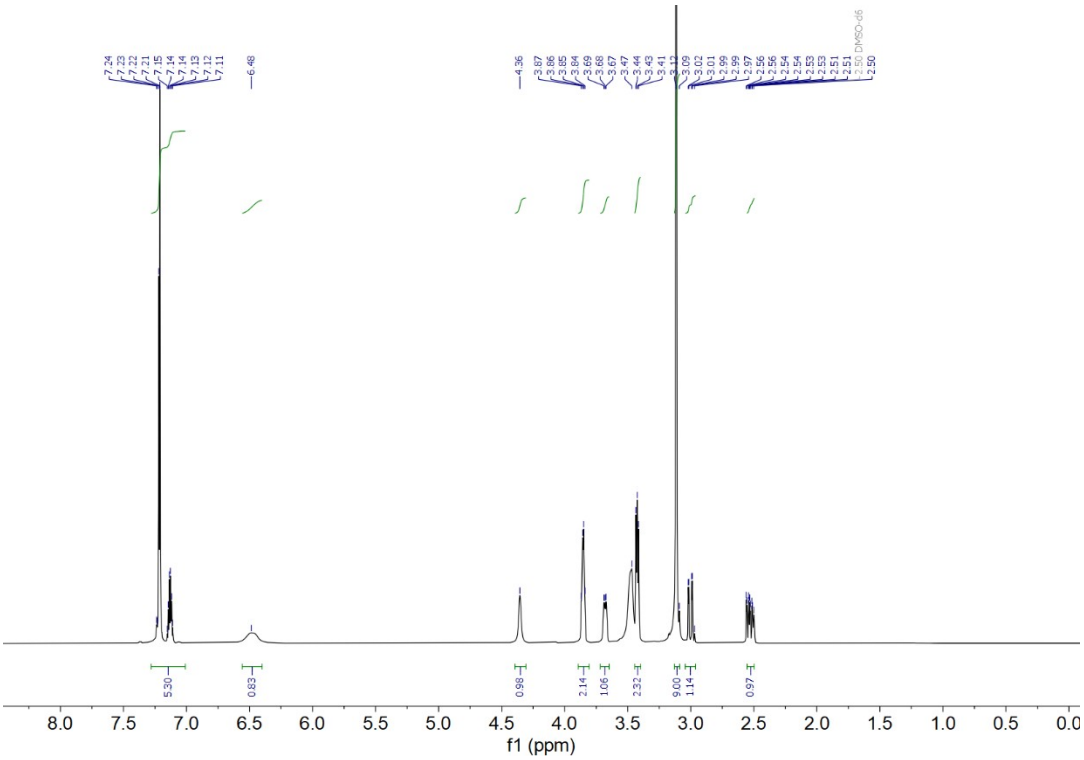

Fig. S5: ^{1}H NMR spectrum of Chol:L-PLA (1:1)

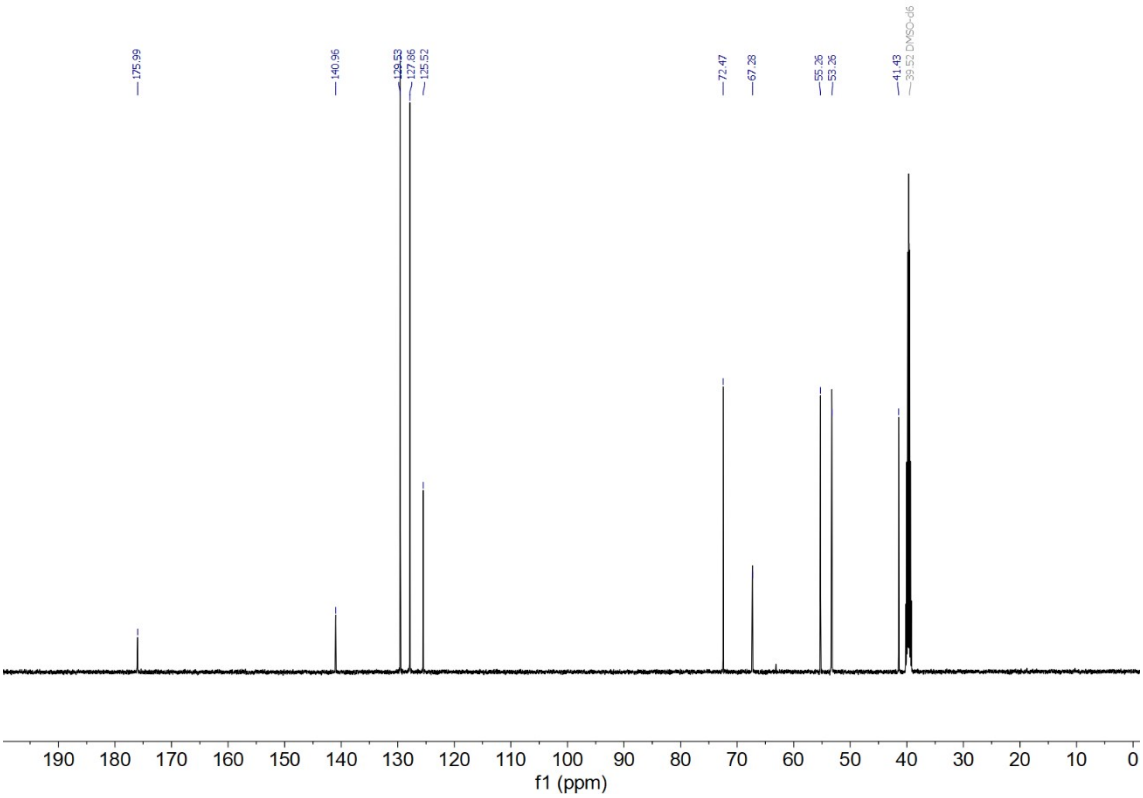

Fig. S6: ^{13}C NMR spectrum of Chol:L-PLA (1:1)

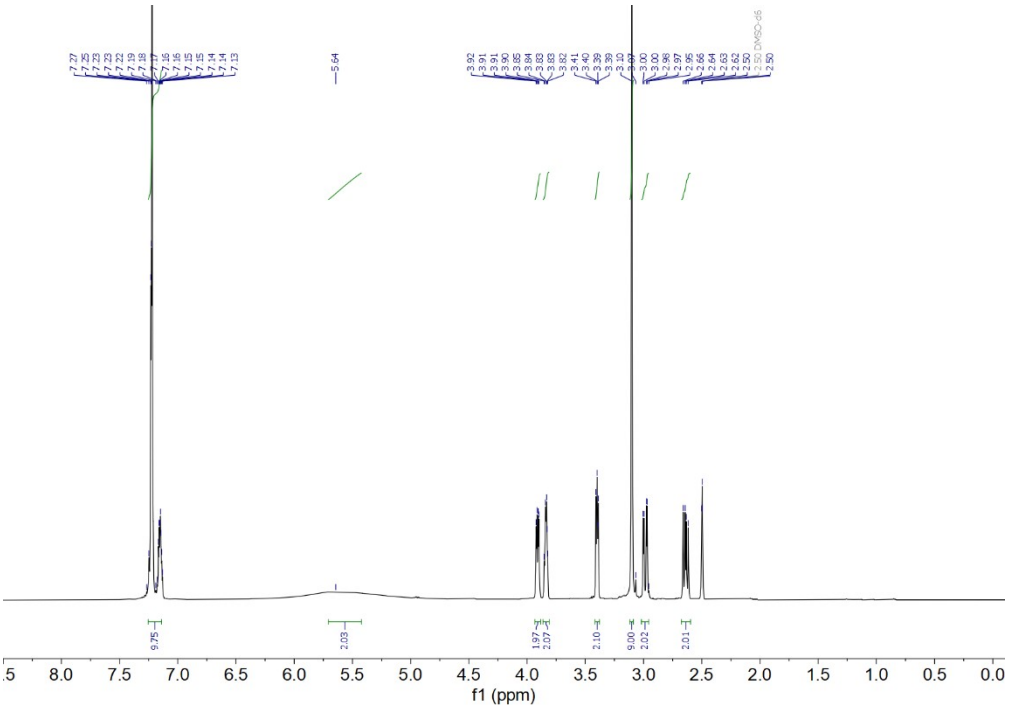

Fig. S7: ^{1}H NMR spectrum of Chol:L-PLA (1:2)

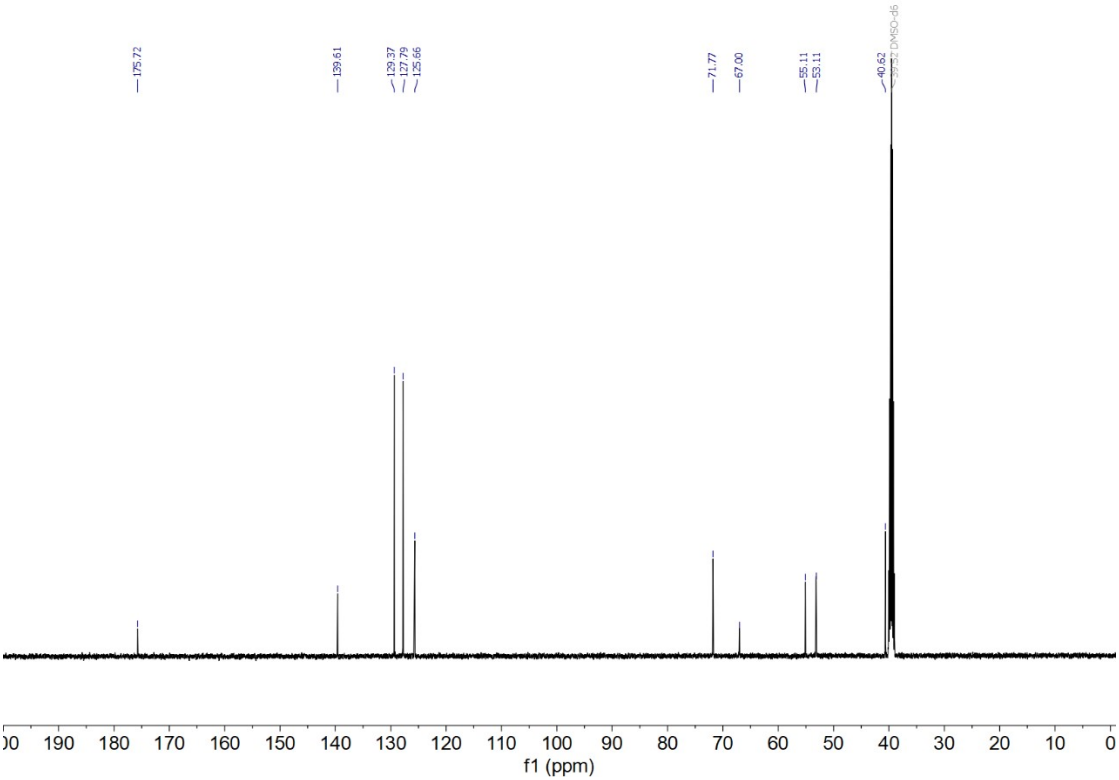

Fig. S8: ^{13}C NMR spectrum of Chol:L-PLA (1:2)

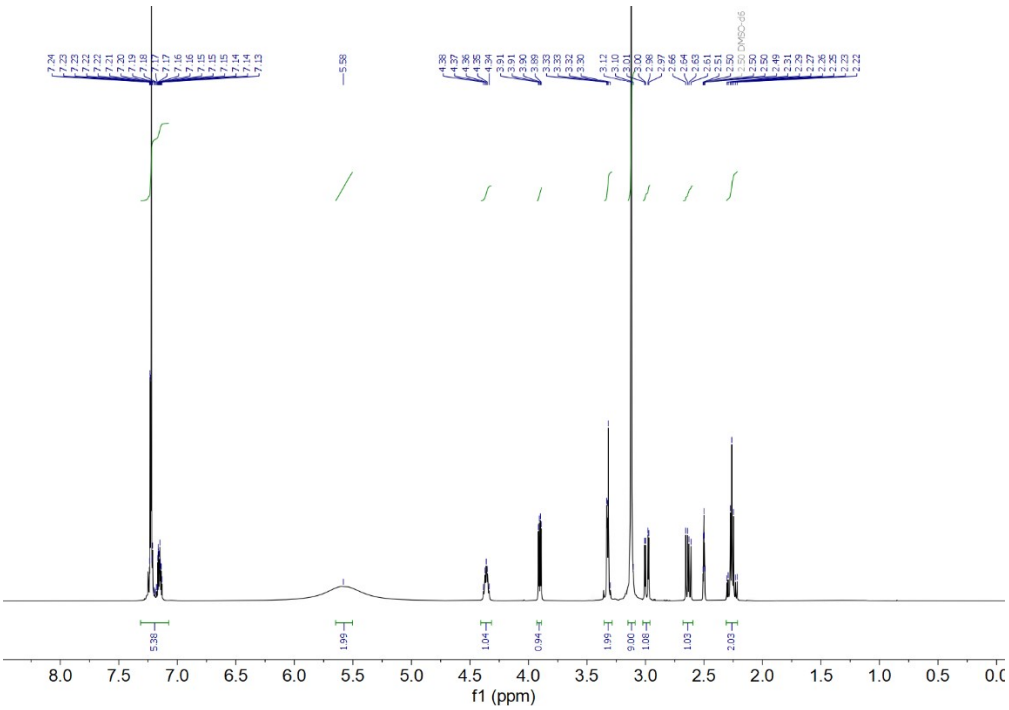

Fig. S9: ^{1}H NMR spectrum of Car:D-PLA

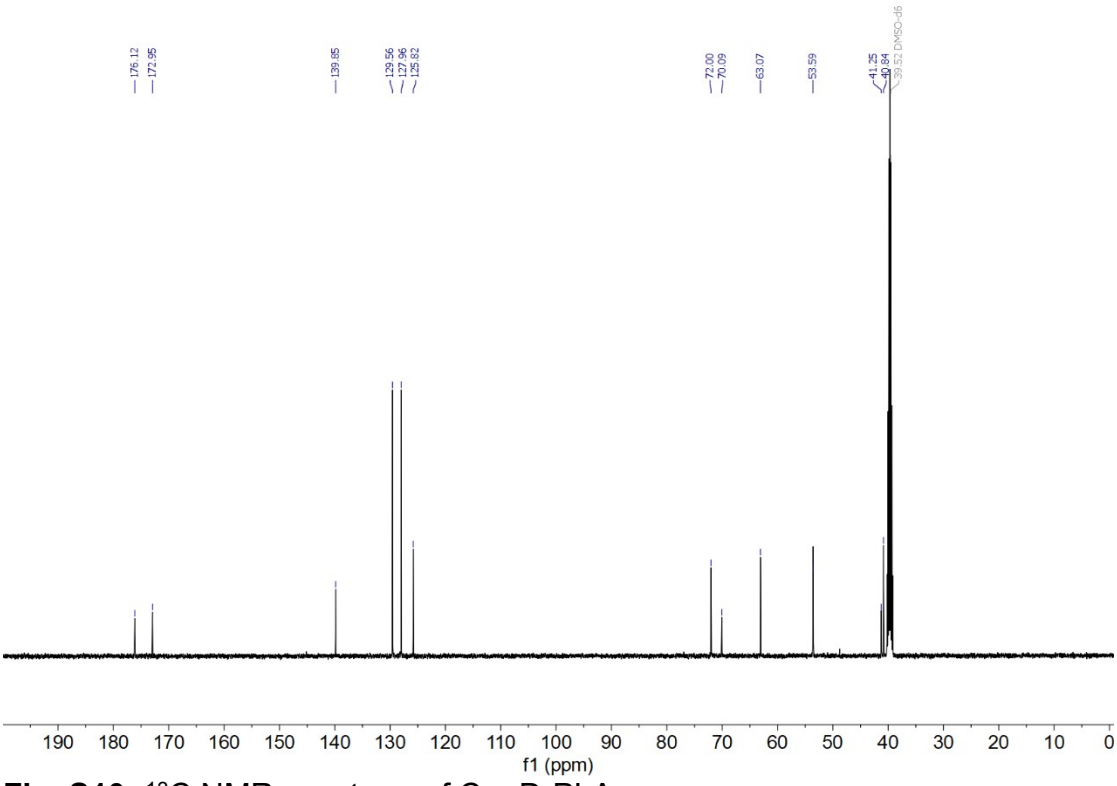

Fig. S10: ^{13}C NMR spectrum of Car:D-PLA

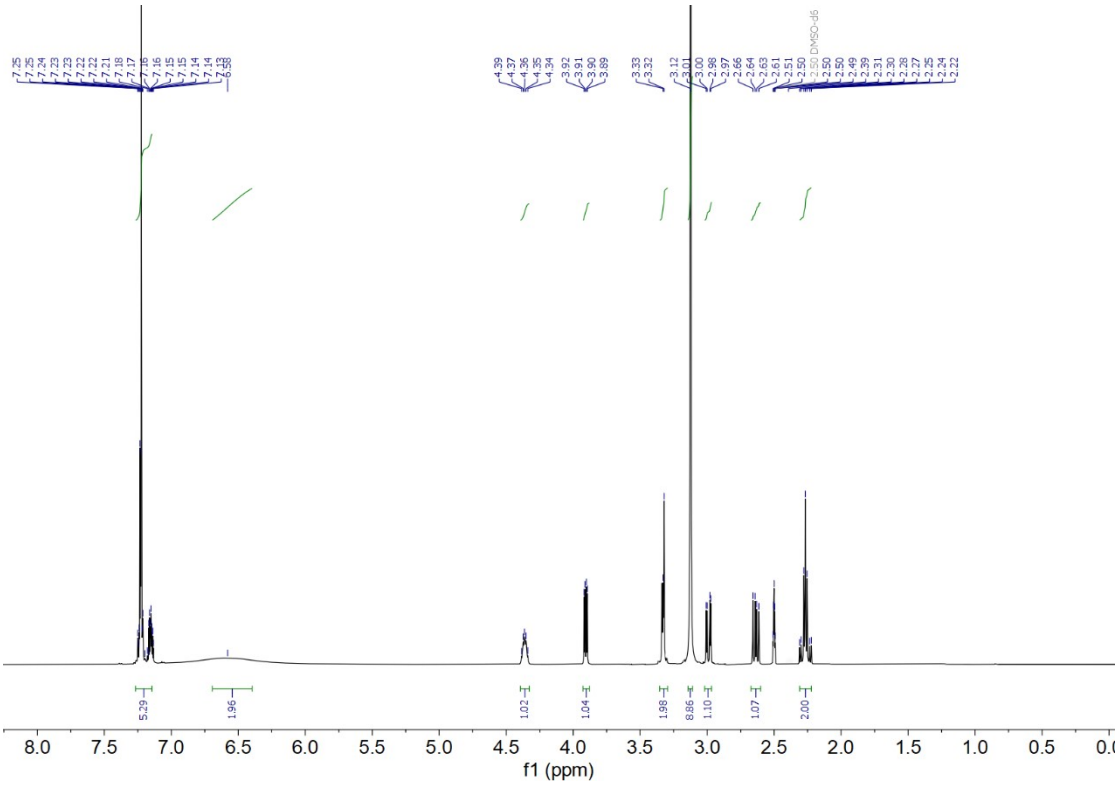

Fig. S11: ^{1}H NMR spectrum of Car:L-PLA

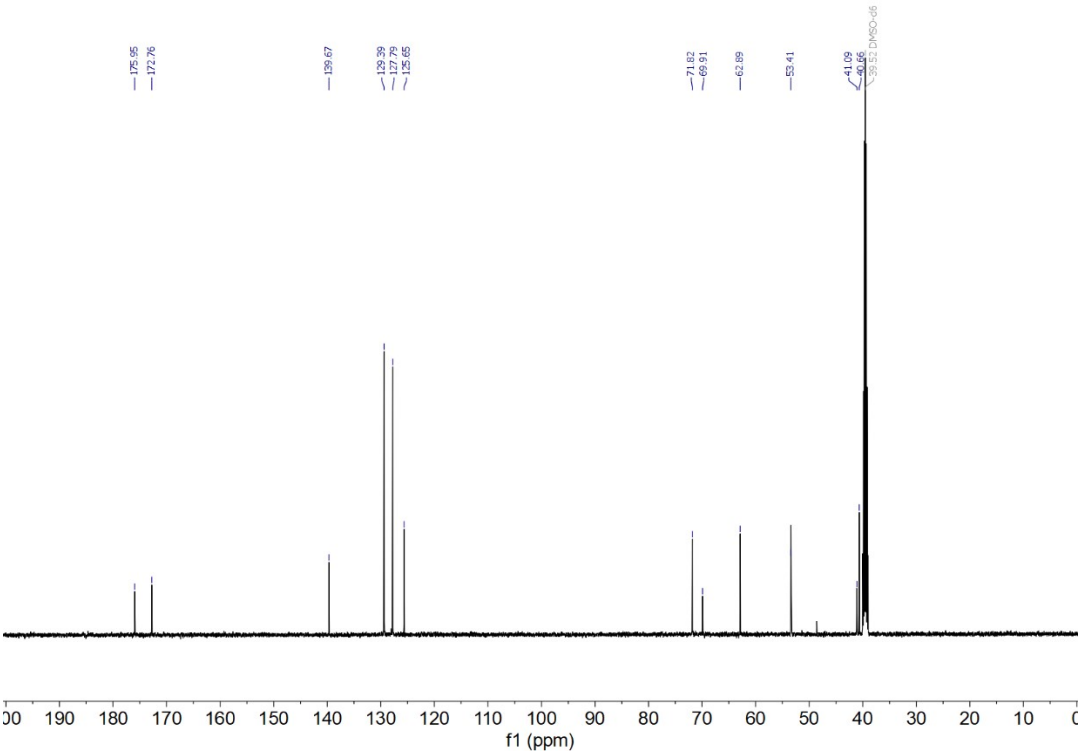

Fig. S12: ^{13}C NMR spectrum of Car:L-PLA

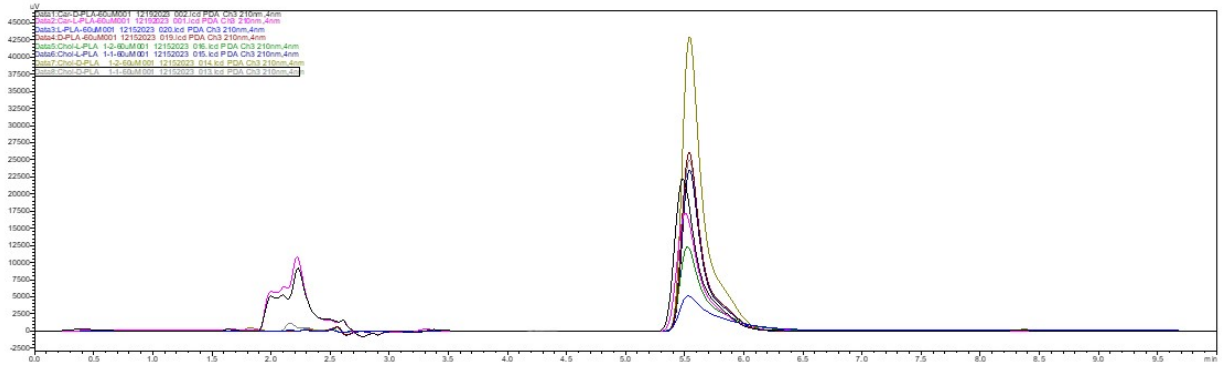

Figure S13: The overlay HPLC chromatogram of D-PLA, L-PLA, Chol:D-PLA (1:1), Chol:L-PLA (1:1), Chol:D-PLA (1:2), Chol:L-PLA (1:2), Car:D-PLA and Car:L-PLA. (concentration: 60 μM).

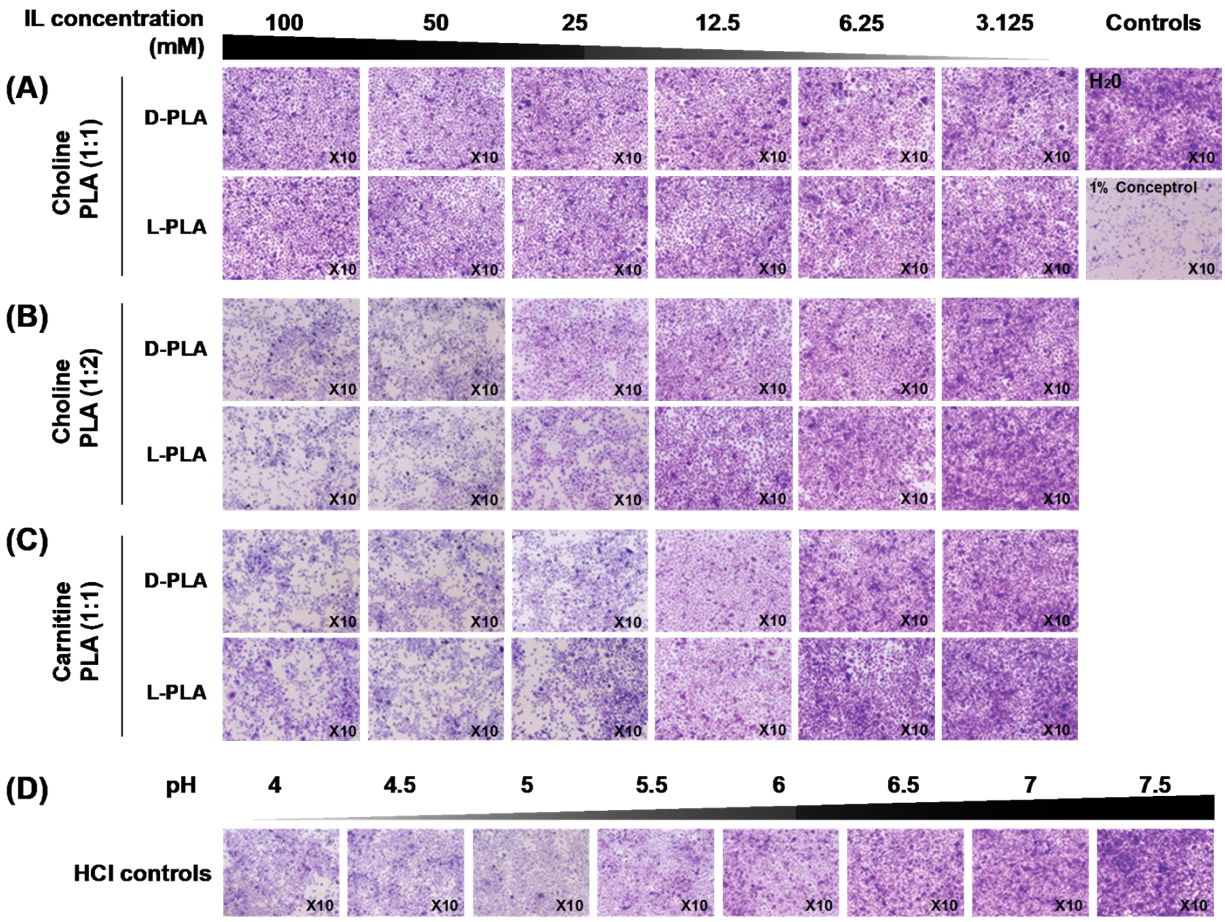

Figure S14. PLA ILs causes no morphological changes to human cervical epithelial cells at low concentrations (≤12.5 mM). Microscopy images, at X10 magnification, of crystal violet stained cervical epithelial (A2EN) cells, grown as monolayers, following 24- hr treatment with varying concentrations of (**A**) Chol:D-PLA (1:1) and Chol:L-PLA (1:1), (**B**) Chol:D-PLA (1:2) and Chol:L-PLA (1:2), and (**C**) Car:D-PLA (1:1) and Car:L-PLA, and (**D**) HCl control solutions. Deionised water and 1% Conceptrol were used as negative and positive controls respectively.

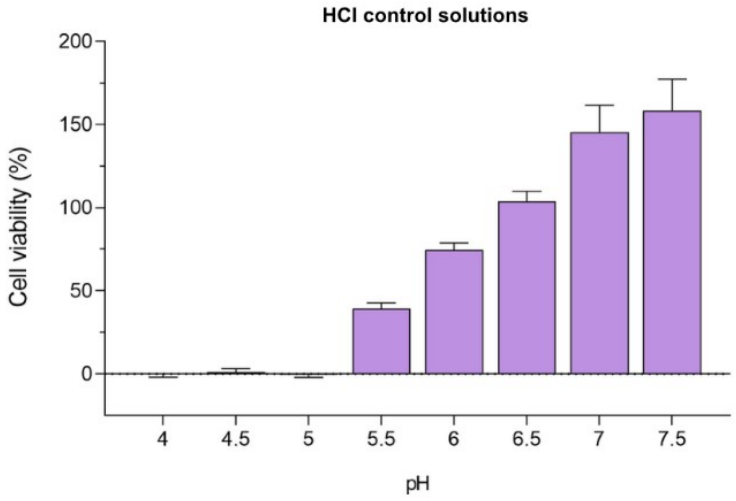

Figure S15. Low pH of HCl control solutions are cytotoxic to human epithelial cells. Percentage cell viability was determined by MTT assay following 24-hr treatment of cervical epithelial (A2EN) cell monolayers with HCl control solutions ranging from 4-7.5 pH. Absorbance was measured at 570 nm (650 nm reference). Percentage cell viability was calculated relative to untreated control (100%) and plotted as mean ± SEM, using 6 independent experiments per pH solution.