Electronic Supplementary Material (ESI) for MedChemComm.

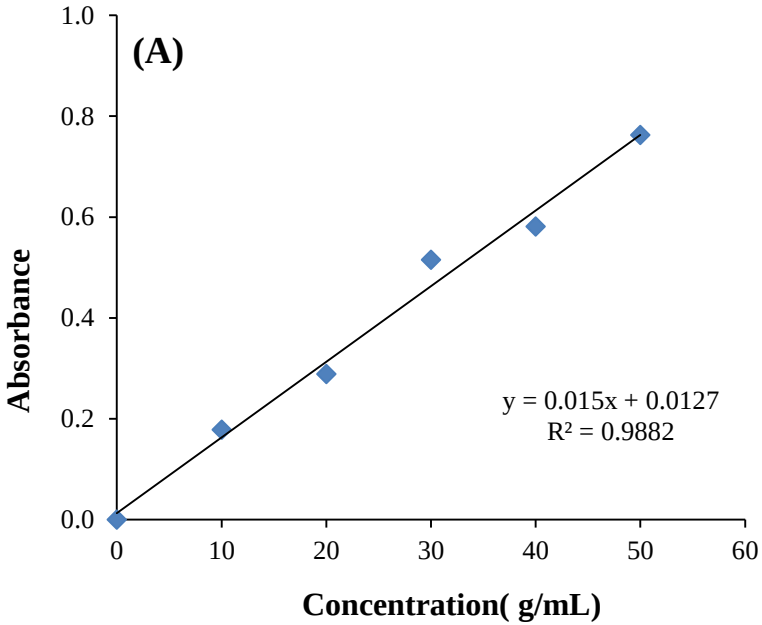
SUPPLIMENTARY INFORMATION

Table TS1(a): Mathematical equations of models used to describe drug release

Model	Mathematical equation
Zero order	$C = \frac{M_t}{M_f} = K_t$
First Order	$C = \frac{M_t}{M_f} = e^{-kt}$
Higuchi square root kinetics	$\frac{M_t}{M_f} = kt^{1/2}$
Korsmeyer and Peppas (Power Law)	$\frac{M_t}{M_f} = kt^n$

Table TS1(b): Exponent ‘n’ of power law and mechanism for drug release at different values

N (For sphere)	Mechanism
0.43	Fickian diffusion
0.43<n<0.85	Anomalous transport(Non-fickian)
0.85	Case II transport



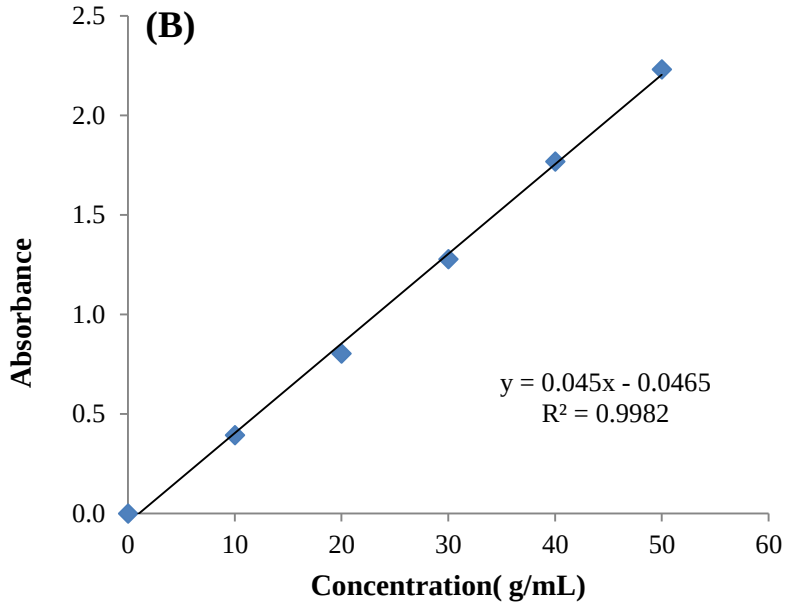


Fig S1: Calibration curves of MTX in (A)acetate buffer(pH 5.5) and (B)phosphate buffer(pH 7.4)

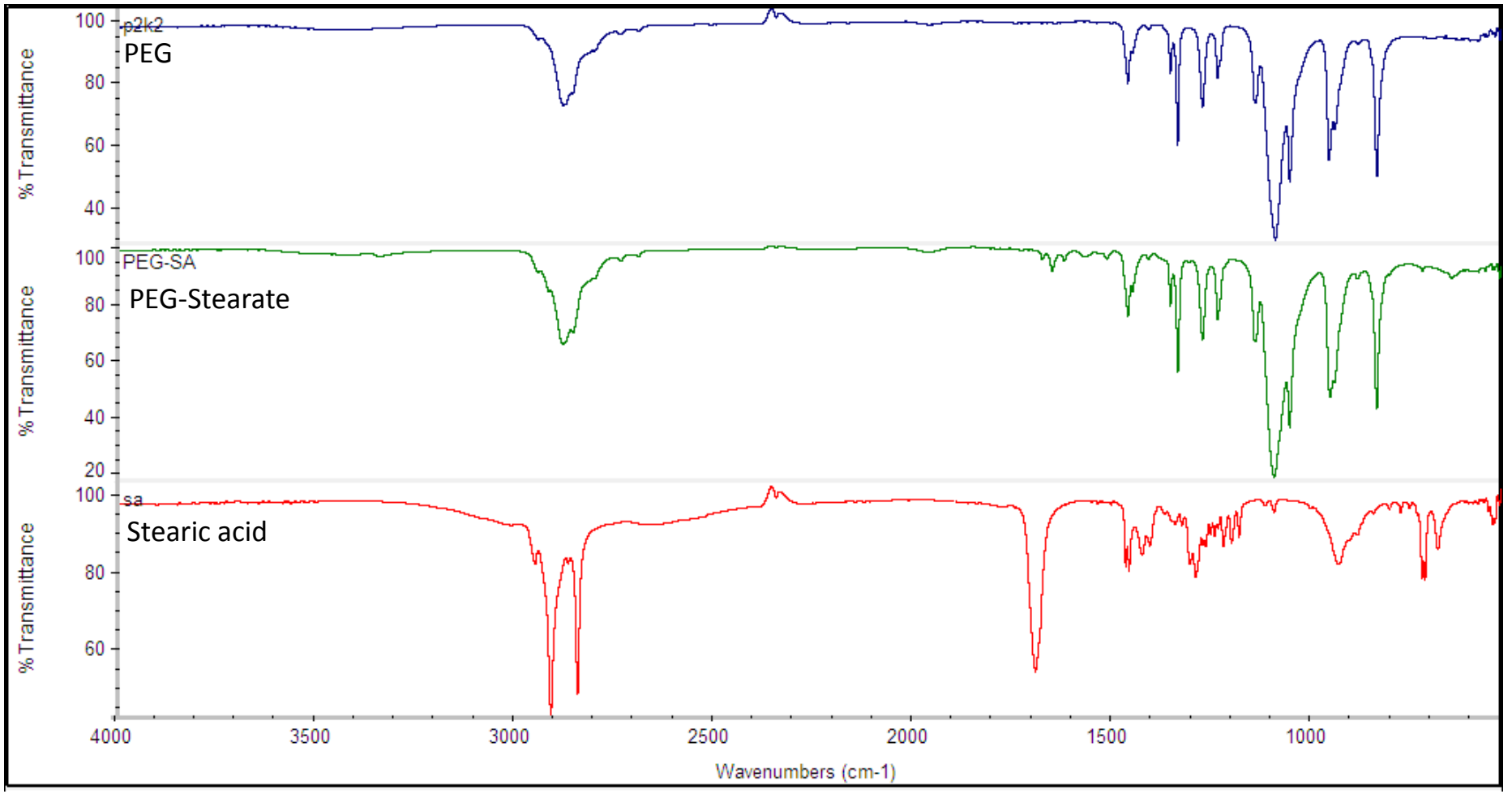


Fig S2: FTIR spectrum of Stearic acid, PEG-OH and PEG-stearate

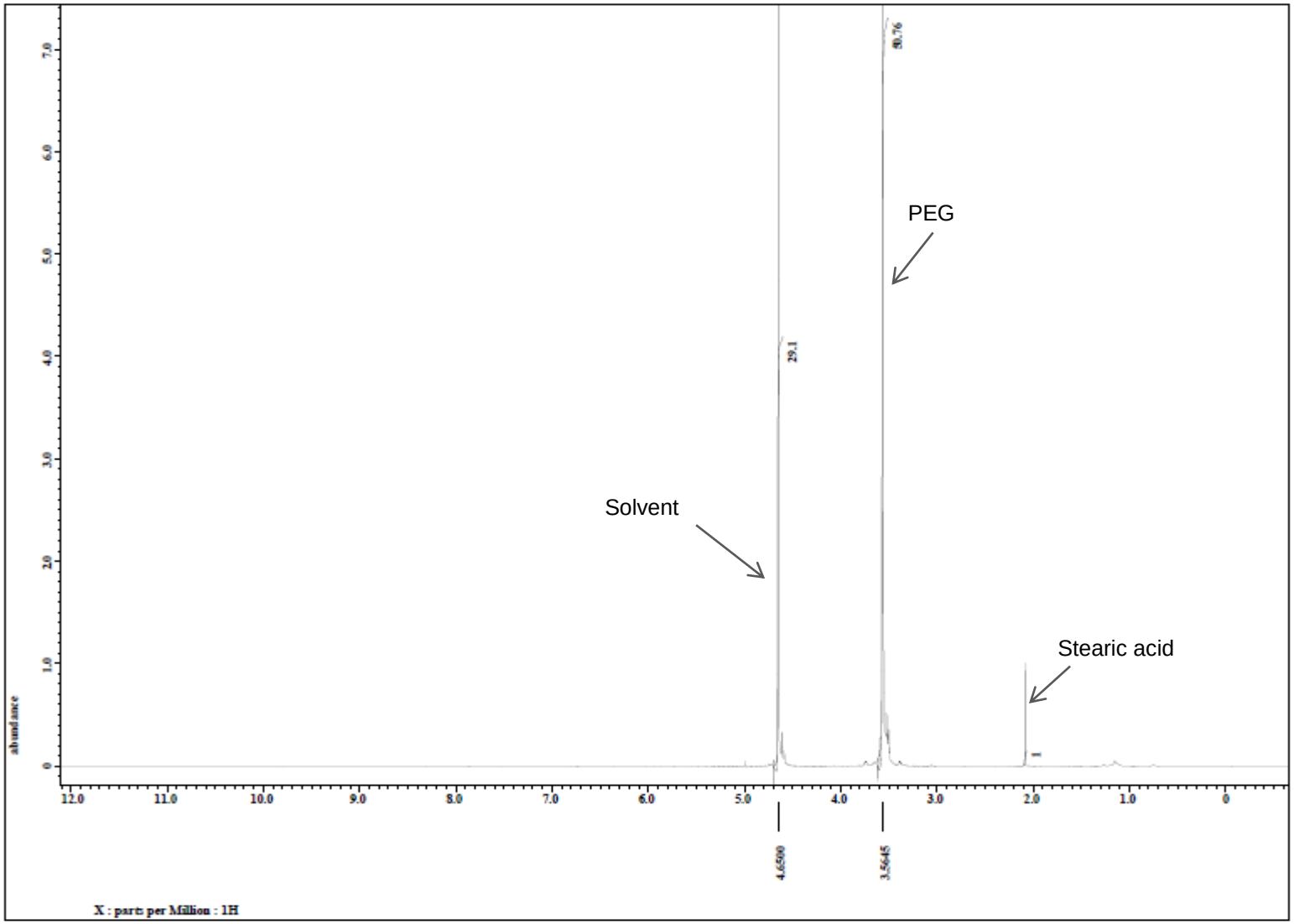
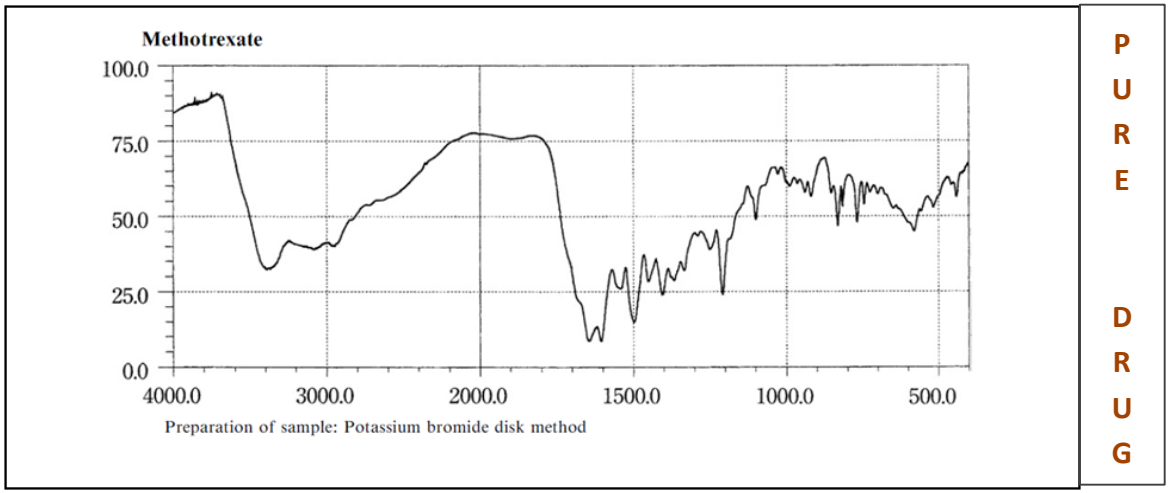
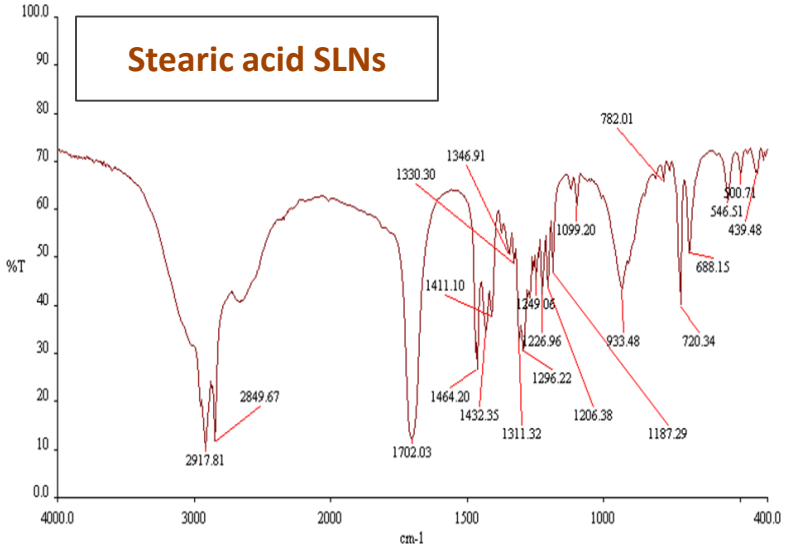


Fig S3: NMR spectrum of PEG-stearate





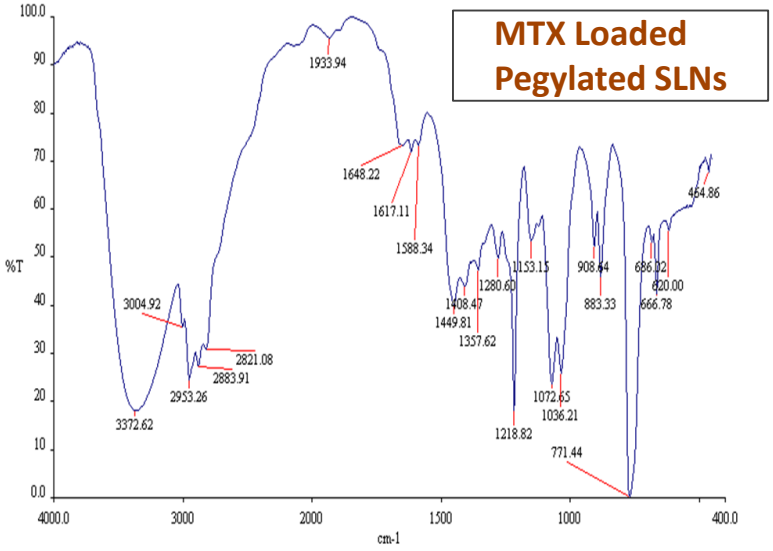


Fig S4: FTIR spectra of MTX, MTX loaded SLNs and MTX loaded pegylated SLNs

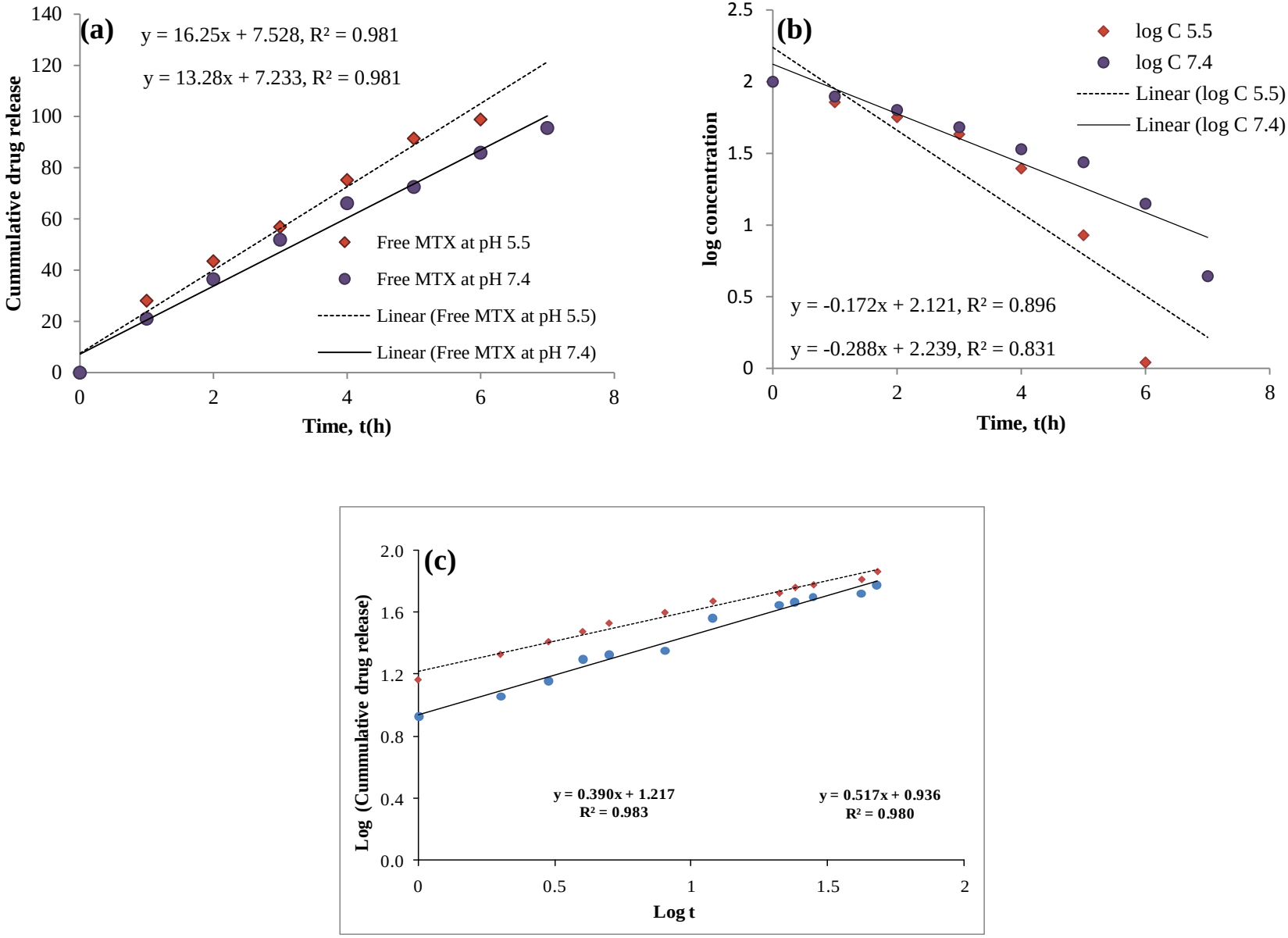


Fig S5: In vitro Drug release profile analysis by (a)ZERO order, (b)FIRST order and (c) Korsmeyer Models at pH 5.5(red diamonds) and pH 7.4(blue dots)

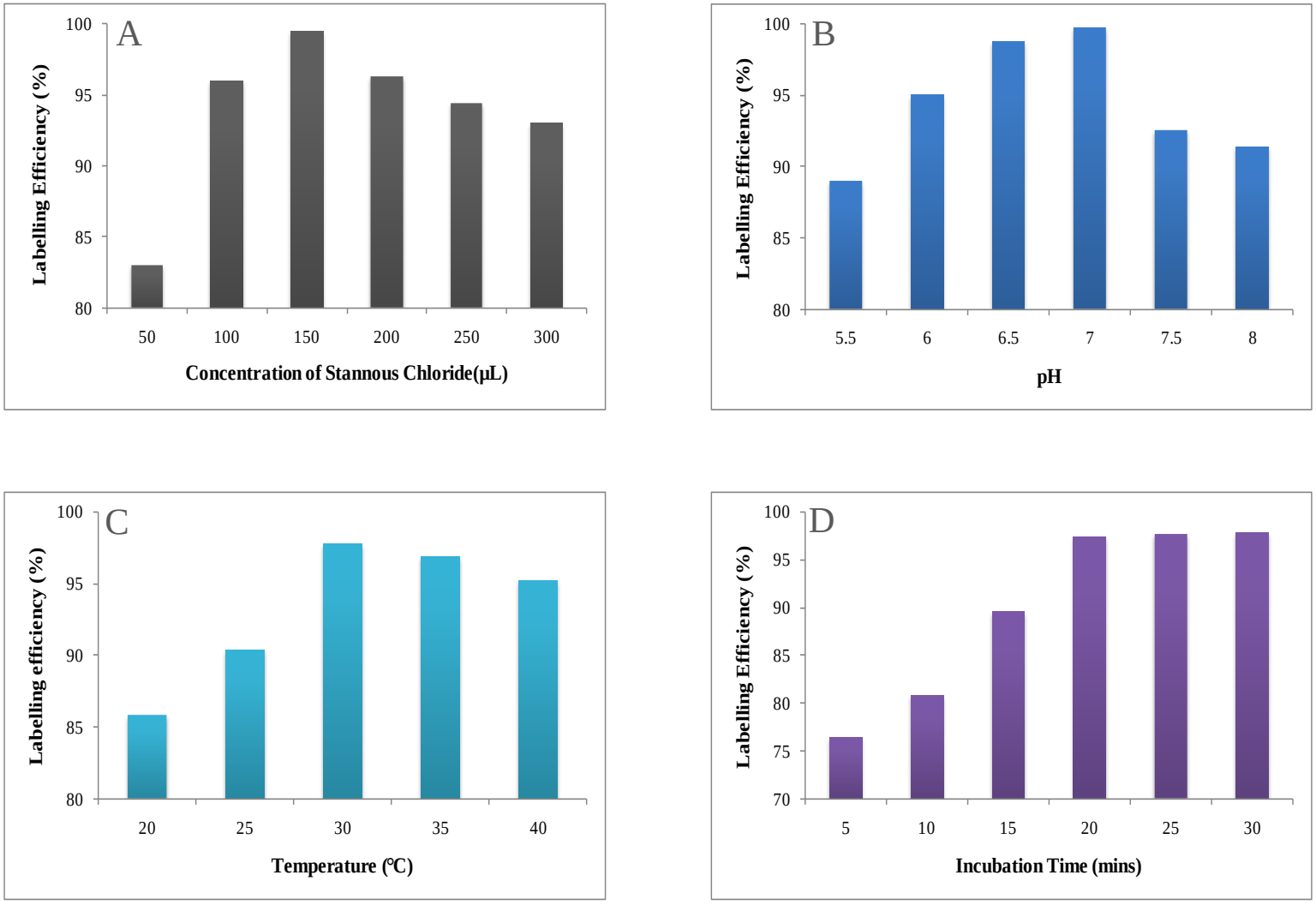


Fig S6: Optimization of labeling parameters for the radiolabeling efficiency

A:Effect of Stannous Chloride concentration; B:Effect of pH;
C:Effect of Temperature; D:Effect of incubation time

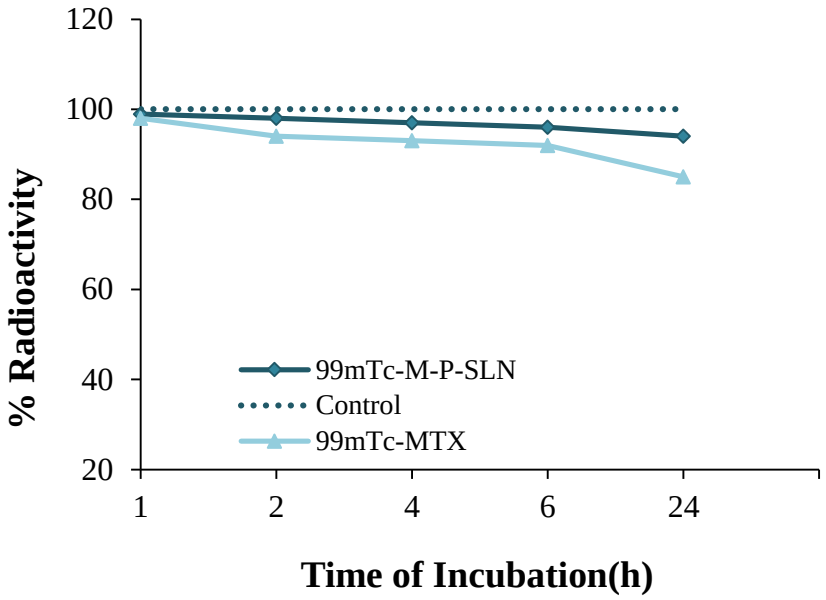


Fig S7: In vitro human serum stability of ^{99m}Tc-MTX and ^{99m}Tc-M-P-SLN