

Table S 1. Temperature for maximum heat flow (T_m), the width at half peak height ($\Delta T_{1/2}$), change in enthalpy (ΔH), heat capacity (ΔC_p) and percentage of crystallinity (C.I.) of blank as well as LIDO and PRO.HCl loaded NLC (5mM; Span 65+SLC+SA, 2:2:1 M/M/M).

[Drug]/ mM	$T_m/ ^\circ\text{C}$	$\Delta T_{1/2}/ ^\circ\text{C}$	$\Delta H/\text{kcal.mol}^{-1}$	$\Delta C_p/\text{kcal.mol}^{-1}\text{C}^{-1}$	CI (%)
<i>Lidocaine loaded NLC in Tween 40</i>					
0.0	35.61	2.01	5.83	10.40	100
0.2	35.53	2.16	4.77	8.63	81
0.5	34.77	1.96	4.89	6.12	83
1.0	35.07	2.02	4.57	5.95	78
1.5	35.40	2.14	4.00	5.18	68
2.0	34.51	2.08	3.27	3.18	56
2.5	34.39	2.08	2.91	2.65	49
<i>Lidocaine loaded NLC in Tween 60</i>					
0.0	32.58	3.15	8.00	5.85	100
0.2	32.55	3.51	6.13	5.18	76
0.5	32.33	3.27	5.26	4.95	65
1.0	32.18	2.92	4.64	3.78	58
1.5	31.97	2.32	3.62	2.58	45
2.0	31.71	2.20	3.53	2.38	44
2.5	31.02	2.08	1.87	1.23	23
<i>Procaine hydrochloride loaded NLC in Tween 40</i>					
0.0	35.61	2.01	5.83	10.40	100
0.2	32.60	2.02	2.89	4.36	49
0.5	32.38	2.00	2.56	3.76	43
1.0	32.08	2.34	2.75	3.28	47
1.5	32.18	2.10	2.46	3.12	42
2.0	32.45	2.02	2.38	3.01	40
2.5	32.40	2.01	2.31	2.83	39
<i>Procaine hydrochloride loaded NLC in Tween 60</i>					
0.0	32.58	3.15	8.99	5.85	100
0.2	32.07	4.09	5.09	3.79	63
0.5	32.34	3.68	4.74	3.79	59
1.0	32.61	3.49	4.68	3.74	58
1.5	32.71	3.29	4.59	3.72	57
2.0	32.91	3.24	4.54	3.58	56
2.5	32.85	3.29	4.55	3.40	56

DSC measurements were performed on day one of sample preparation.

Table S 2. Drug release kinetics profiles of LIDO and PRO.HCl loaded NLCs.

Formulation	Korsemeyer-Peppas			Higuchi		Hixson-Crowell		First order	
	r ²	k	n	r ²	k	r ²	k	r ²	k
LIDO-T40	0.99	6.84	0.283	0.98	2.35	0.93	0.001	0.93	0.002
LIDO-T60	0.95	10.25	0.333	0.91	4.47	0.87	0.002	0.90	0.007
PRO.HCL-T40	0.99	40.03	0.178	0.75	15.51	0.76	0.031	0.93	0.393
PRO.HCl-T60	0.94	41.93	0.256	0.86	0.271	0.90	0.036	0.92	0.446

*r²=regression coefficient, k= release rate constant, n=diffusional exponent.

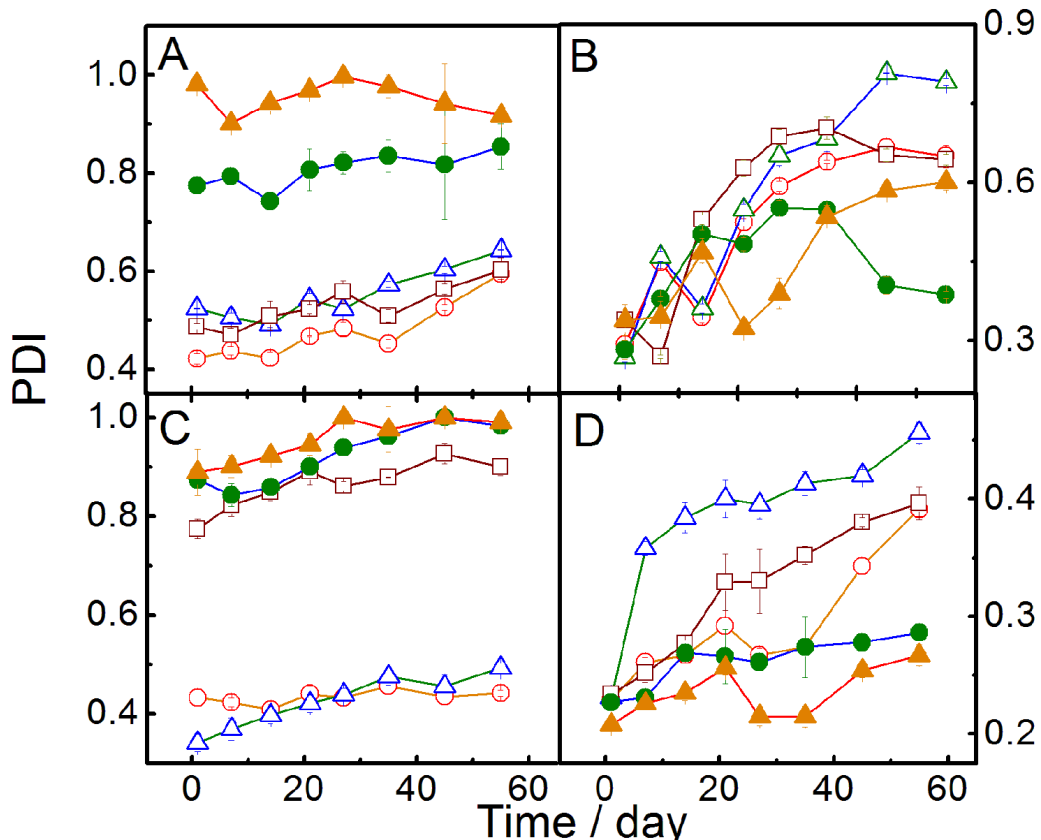


Figure S 1. Variation in the polydispersity index (PDI) of NLCs (Span 65 + SLC + SA, 2:2:1 M/M/M) with time in presence of varying concentration of drugs. Panel A: LIDO loaded NLC in Tween 40; panel B: PRO.HCl loaded NLC in Tween 40; panel C: LIDO loaded NLC in Tween 60 and panel D: PRO.HCl loaded NLC in Tween 60. 5 mM NLC was dispersed in 10 mM Tween in each case. Drug concentration (mM) : O, 0; Δ, 0.5; □, 1; ●, 2 and ▲, 2.5. Temp. 25 °C.

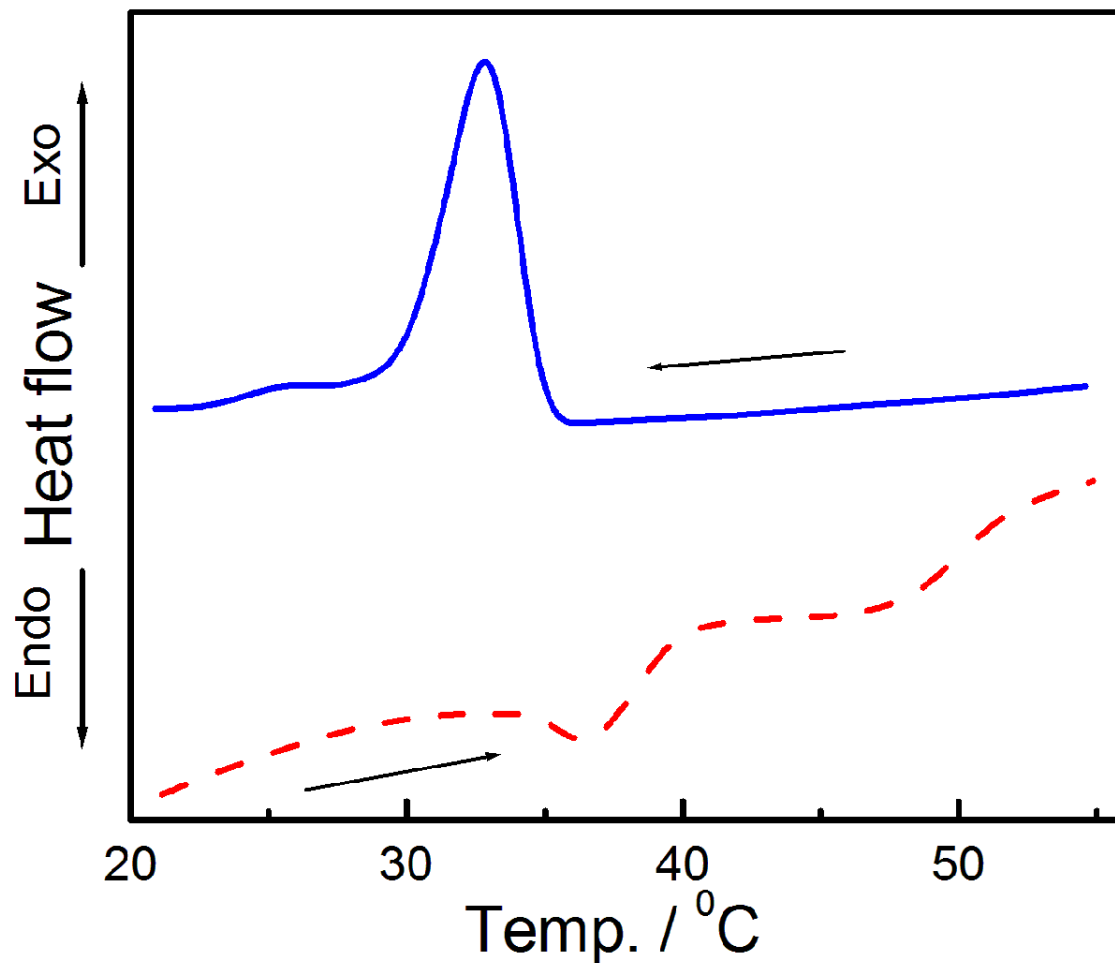


Figure S 2. DSC heating (---) and cooling (—) thermogram of 2.5 mM LIDO loaded NLC (5 mM, Span 65+SLC+SA, 2:2:1 M/M/M) dispersed in Tween 60 (10mM). Scan rate: 2 °C/min.

$E_T(30)$ value is defined as the molar electronic transition energy (E_T) of dissolved probe molecule measured in kCal/mol at room temperature(25 °C) and normal pressure (1bar). It is expressed by the equation:

$$E_T(30) = 28591 / \lambda_{\max}$$

where, λ_{\max} is the wavelength of maximum absorption

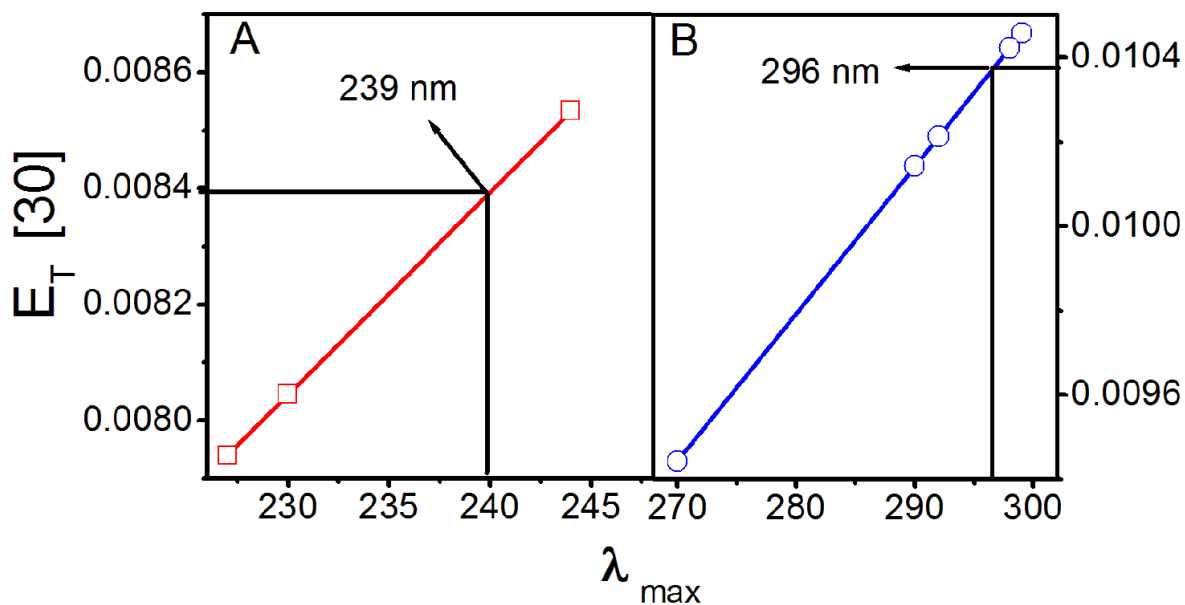


Figure S 3. Dependence of absorption maxima (λ_{\max}) of LIDO (panel A) and PRO.HCl (panel B) on the $E_T(30)$ scale of medium at 25 °C.