

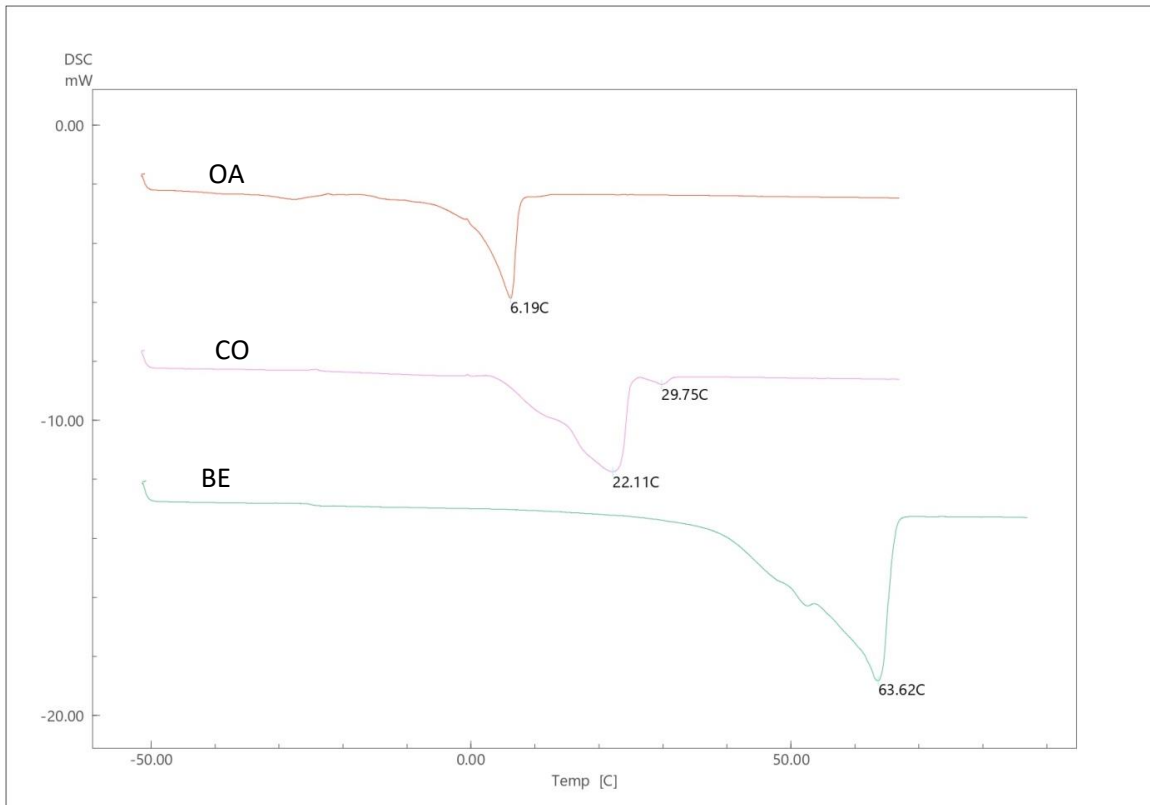
## Supplementary Materials:

# Fabrication of alginate-based o/w nanoemulsions for transdermal drug delivery of lidocaine: Influence of the oil phase and surfactant

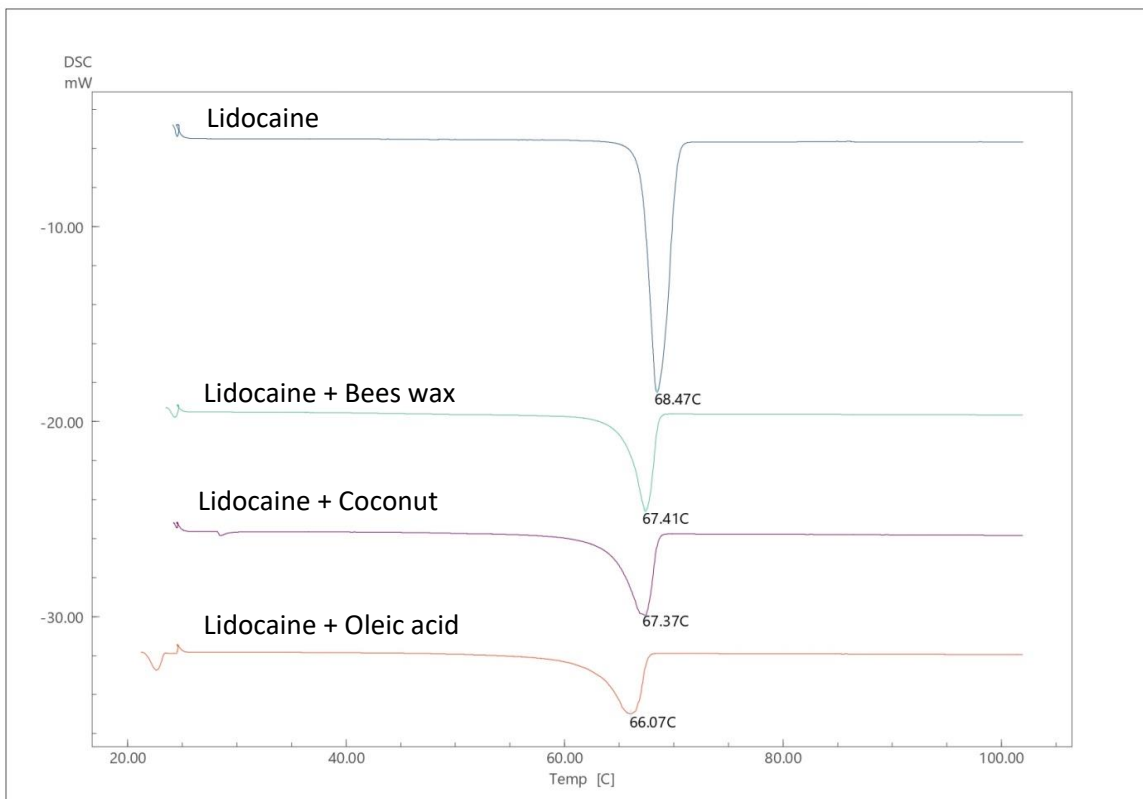
Omar Sarheed\*, Manar Dibi, KVRNS Ramesh and Markus Drechsler

Table S1. Drug content of lidocaine nanoemulsions

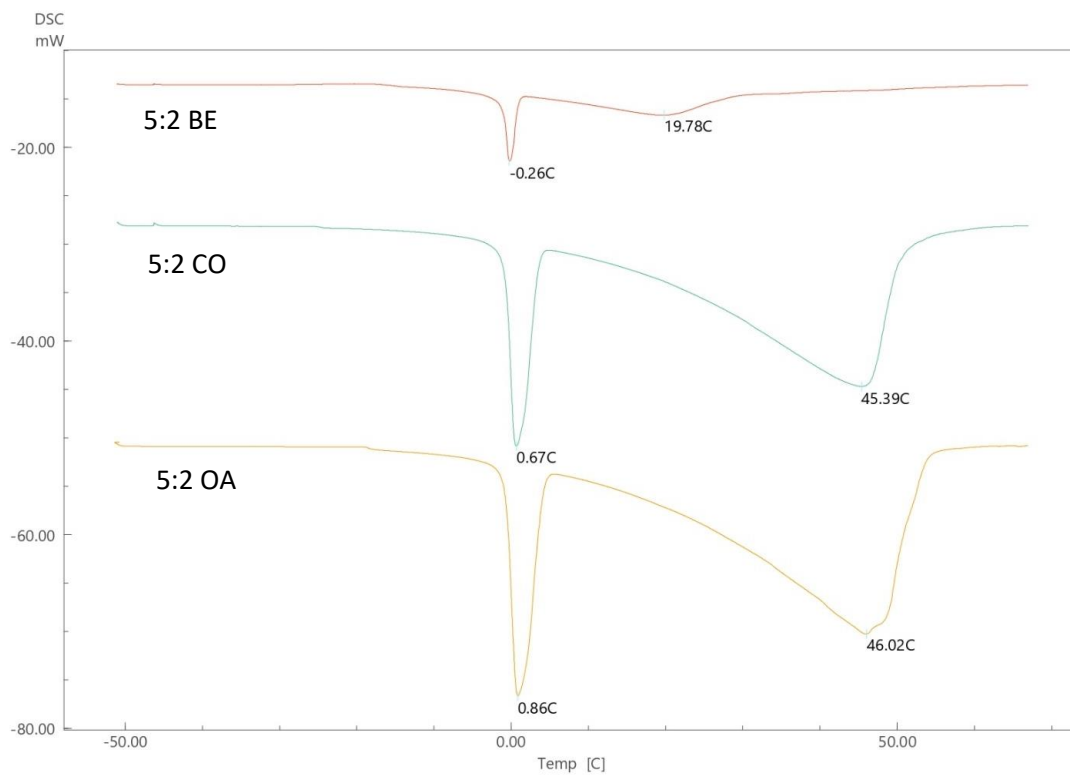
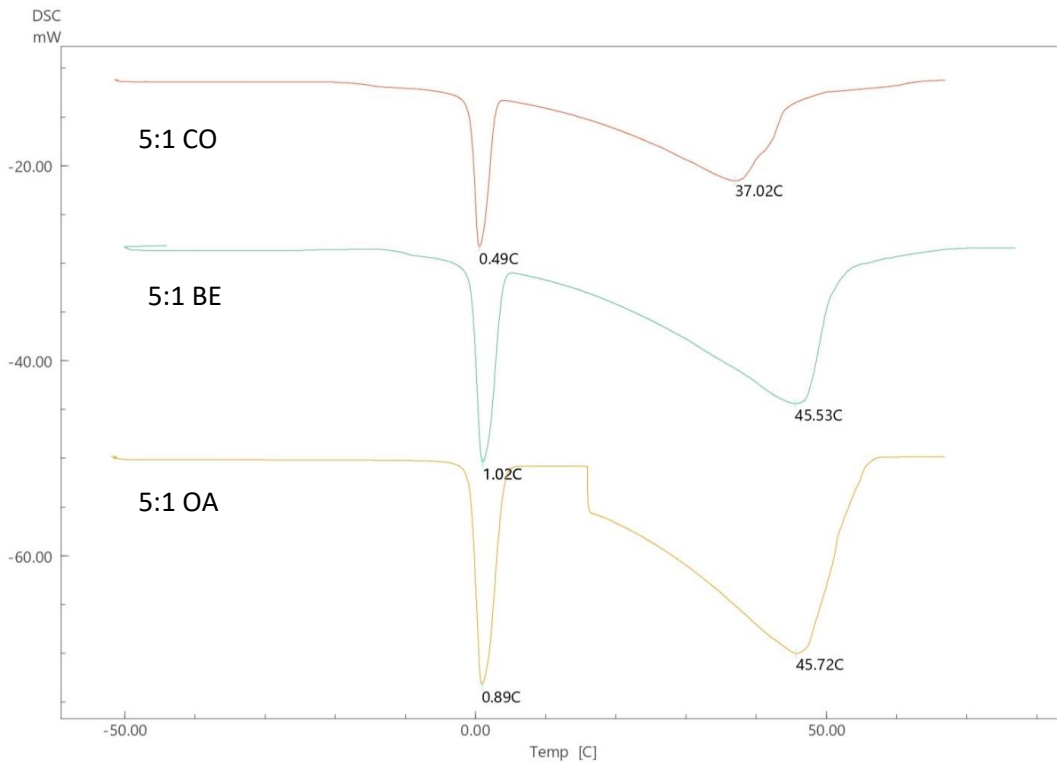
Surfactant-to-oil ratio	Oil type	Drug content	Entrapment efficiency
5:1	BE	1.260 mg/ml	97.17 %
	CO	1.207 mg/ml	97.09%
	OA	1.241 mg/ml	97.10%
7:1	BE	1.300 mg/ml	97.00 %
	CO	1.268 mg/ml	96.00 %
	OA	1.207 mg/ml	97.00%
10:1	BE	1.160 mg/ml	97.10 %
	CO	1.391 mg/ml	97.35 %
	OA	1.109 mg/ml	96.00 %
5:2	BE	2.459 mg/ml	96.65%
	CO	2.668 mg/ml	97.12 %
	OA	2.193 mg/ml	96.72%
7:2	BE	2.486 mg/ml	96.95%
	CO	2.567 mg/ml	96.87%
	OA	2.289 mg/ml	97.10 %
10:2	BE	2.449 mg/ml	96.74%
	CO	2.540 mg/ml	96.86%
	OA	2.326 mg/ml	97.00 %

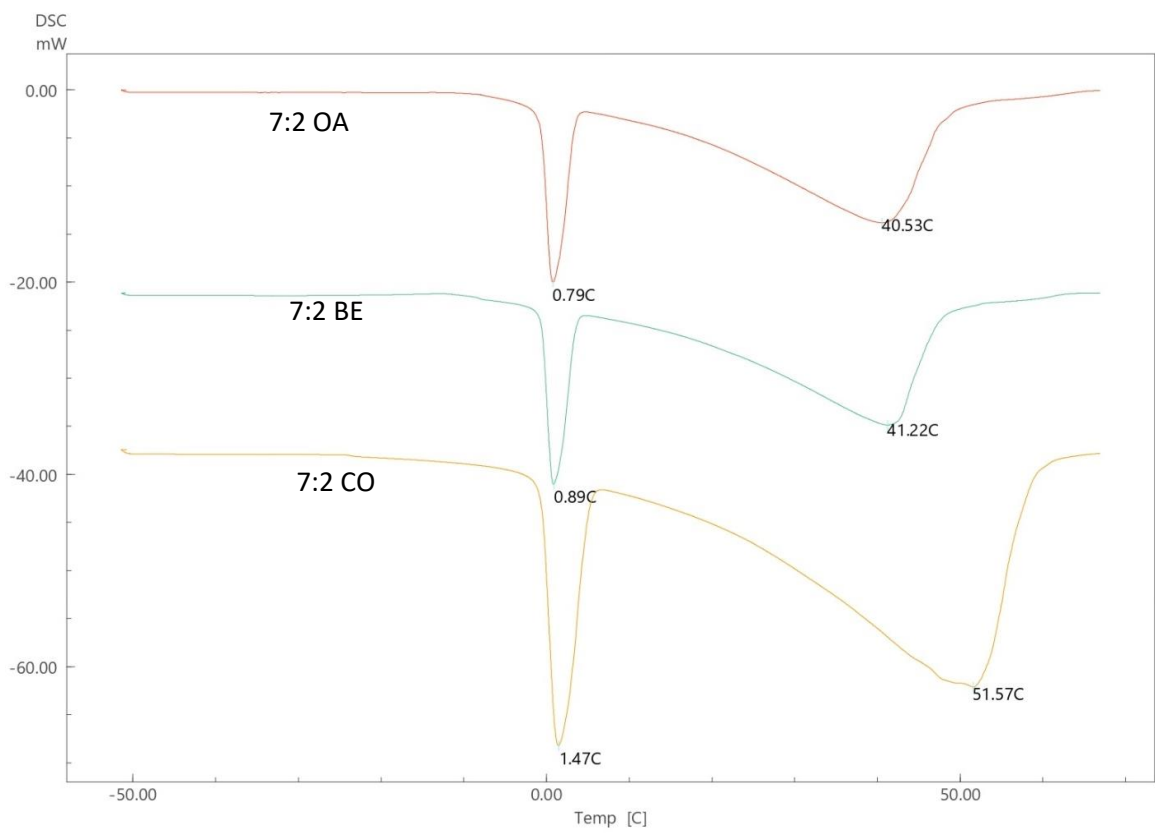
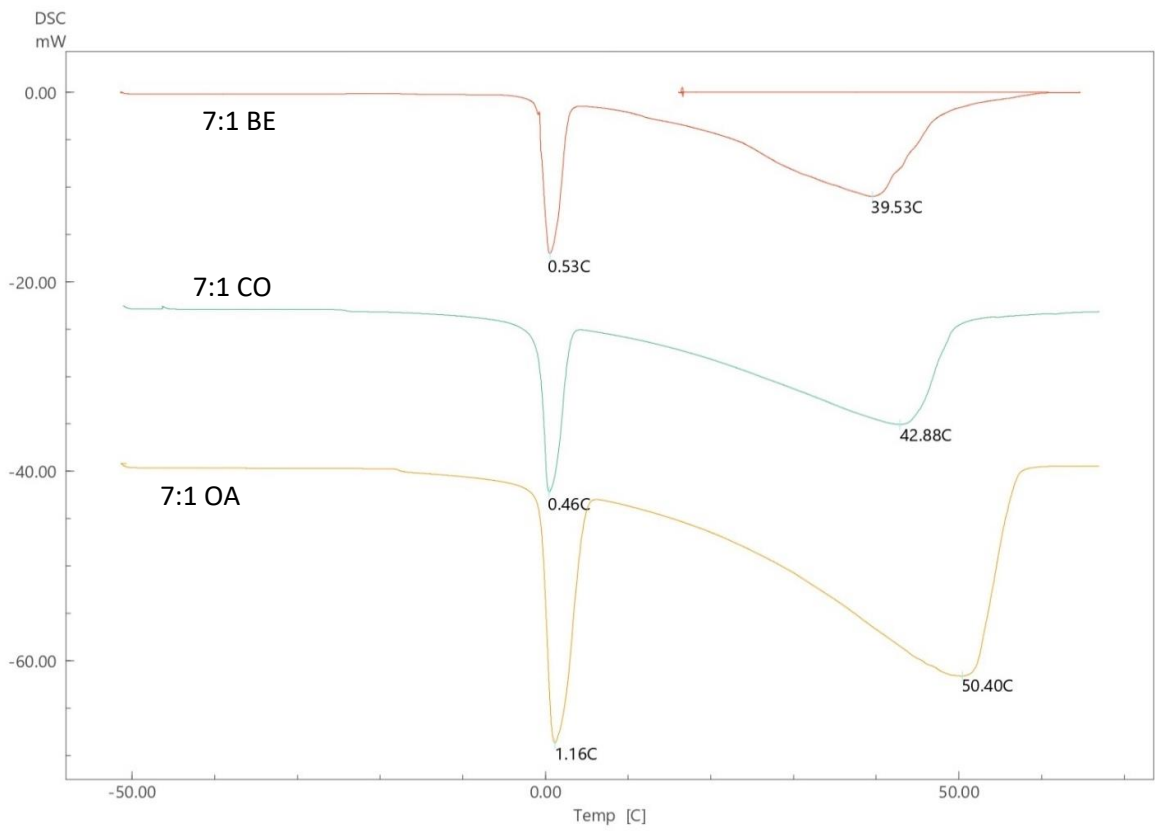


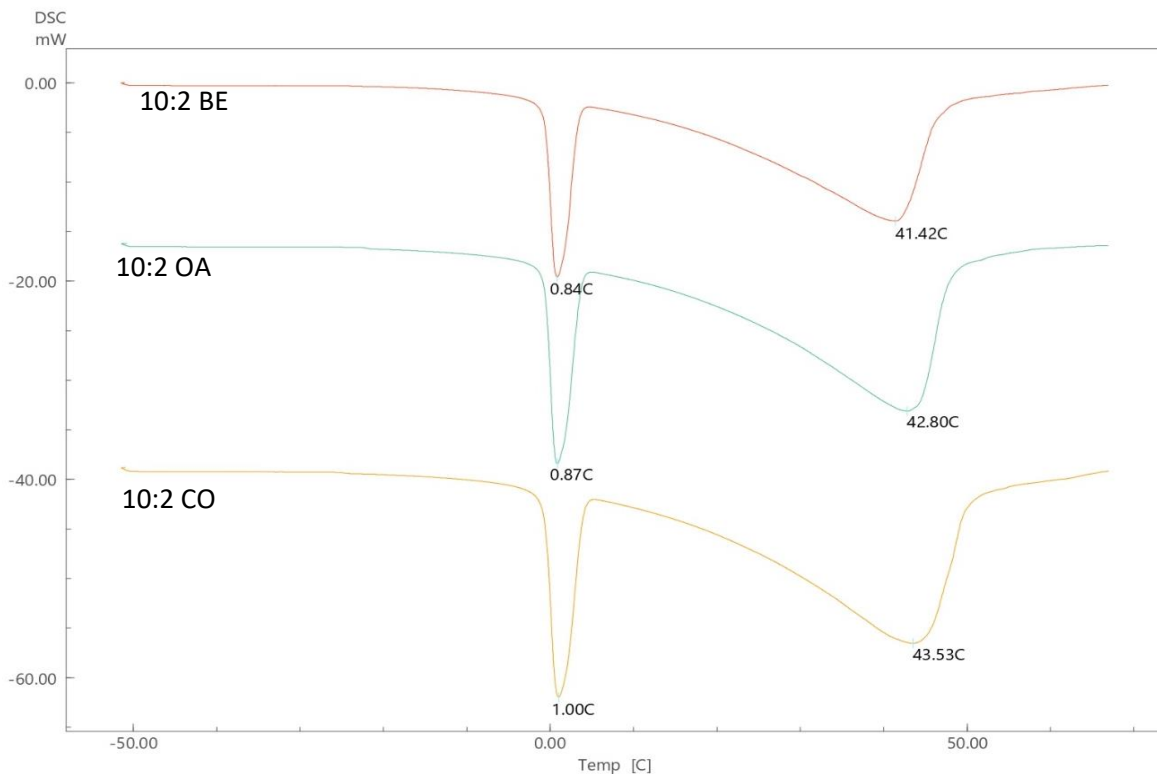
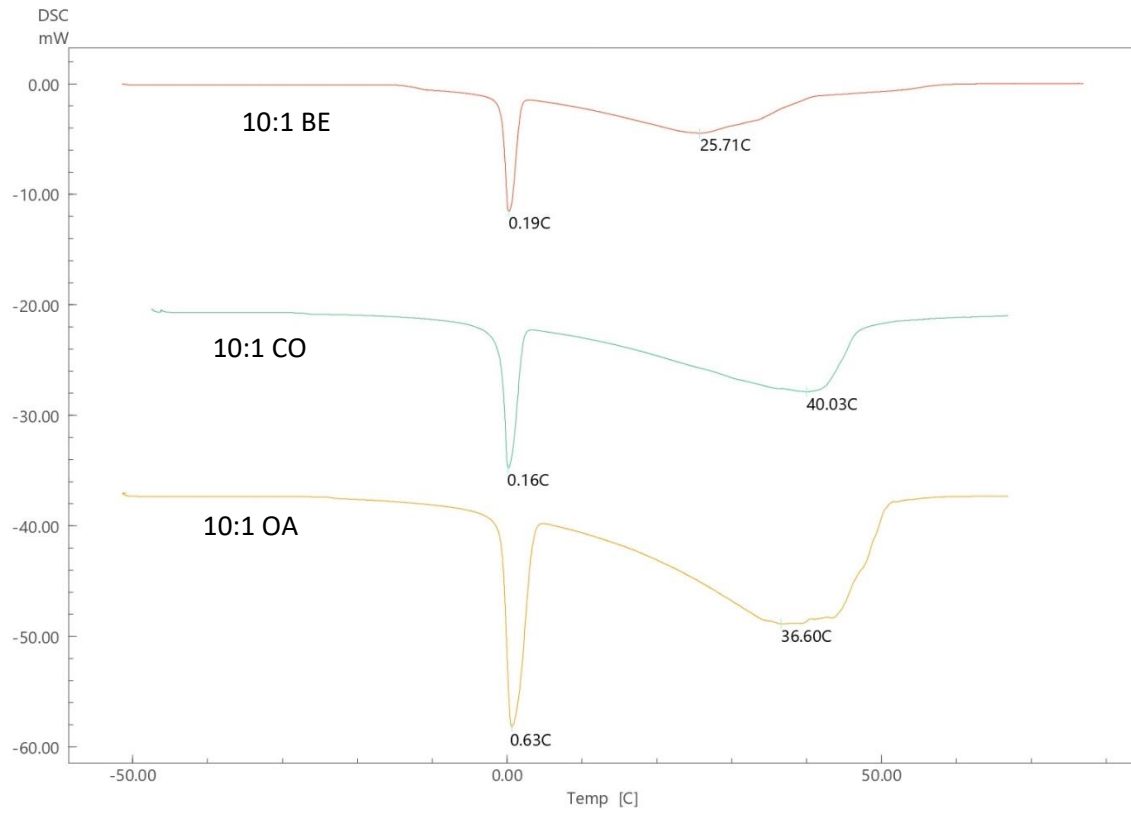
**Figure S1.** Differential scanning calorimetry curves of pure lipids.



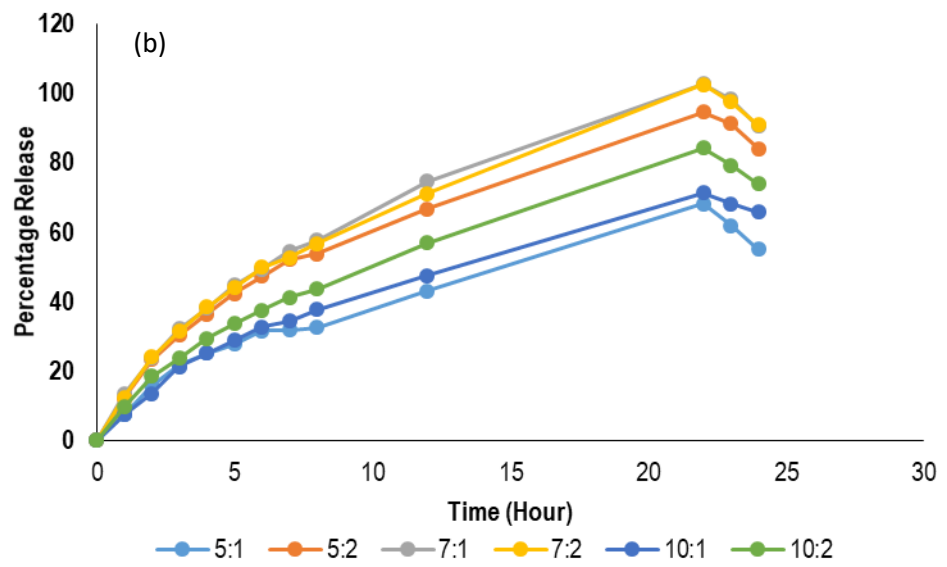
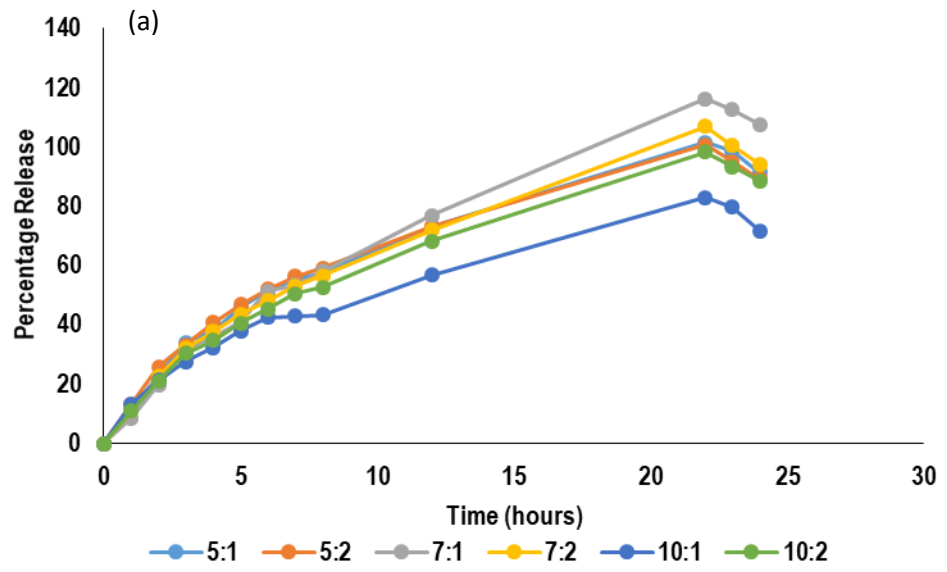
**Figure S2.** Differential scanning calorimetry curves of lidocaine and physical mixtures with lipids.

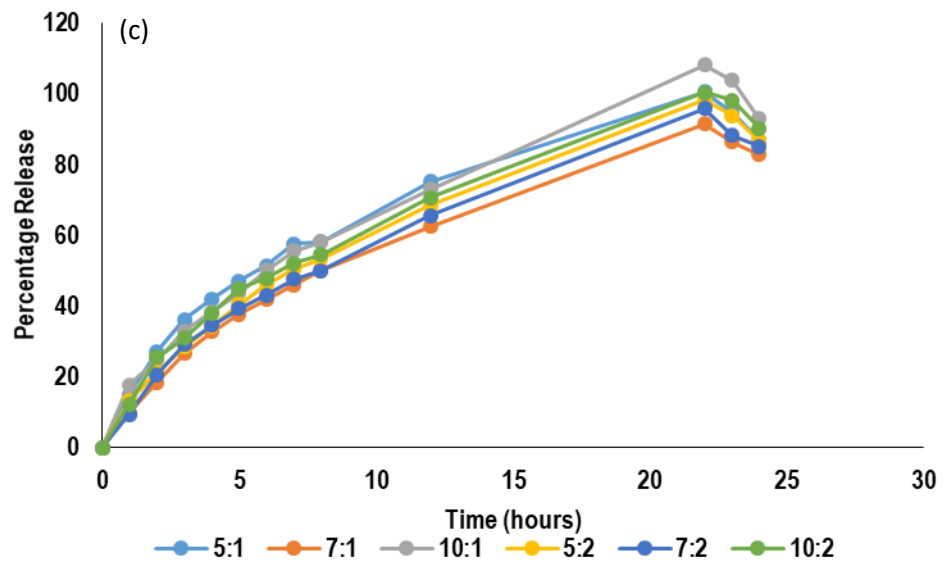






**Figure S3-S8.** Differential scanning calorimetry curves of lidocaine nanoemulsion with different lipids.





**Figure S9-S11.** Release study of lidocaine nanoemulsion formulated with (a) beeswax, (b) coconut oil and (c) oleic acid