Supplementary Materials

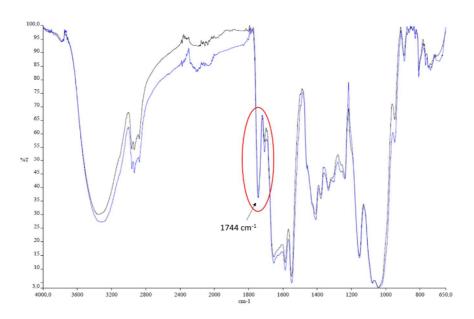


Figure S1: FT-IR ATR spectra of HA-Rfv (black) and HA-Rfv after autoclave treatment (blue). The ester C=O stretching peak at 1744 cm⁻¹ is evidenced

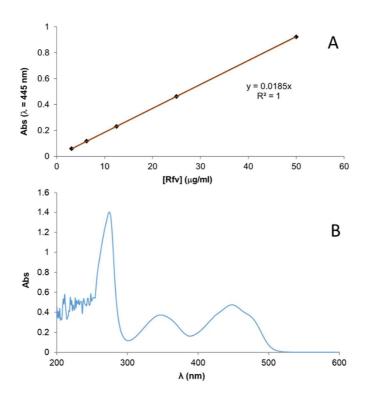


Figure S2: UV-Vis calibration curve of Rfv in DMSO at λ = 445 nm (A); HA-Rfv UV-Vis spectrum at 100 μ g/ml in DMSO (B)



Figure S3: Mean dimensions and PDI of NHs before and after the addition of dextrose ($C_f = 1\% \text{ w/V}$), and after freeze-drying and re-suspension in water

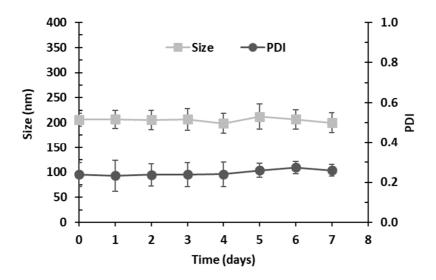


Figure S4: Stability at 4 $^{\circ}\text{C}$ of NHs freeze-dried and re-suspended in water

Figure S5: Scheme of reactions of (A) HA-TBA and of (B) HA-Rfv in the form of NHs with Rhodamine B isothiocyanate

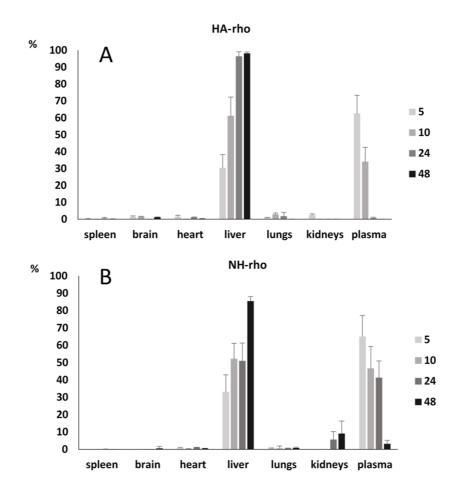


Figure S6: Percentage of accumulation of A) HA and B) NHs at 5, 10, 24 and 48 h of intravenous administration in plasma and analyzed organs

 $\textbf{Table S1:} \ \text{Size and PDI of NHs after freeze-drying ad re-suspension in water, and after the addition of glycerol 2.28 \% w/V and PBS 0.01 M, pH 7.4$

NHs	Size (nm)	PDI
Water (after freeze-drying)	204 ± 20	0.23 ± 0.06
+ Glycerol (2.28 % w/V)	217 ± 20	0.22 ± 0.08
+ PBS 0.01M, pH = 7.4	219 ± 19	0.22 ± 0.04

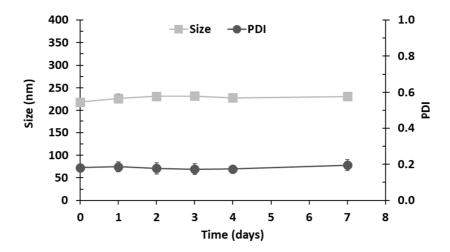


Figure S7: Stability at 4°C of the piroxicam-loaded NHs formulation in glycerol 2.28% w/V and PBS 0.01 M, pH = 7.4