**Supplementary Material**

**Tailoring size and release kinetics of κ/ι-** **hybrid carrageenan microgels via** **a surfactant-assisted technique**

X-ray diffraction tests

The XRD spectra of ENX were compared with the spectra of pure and ENX loaded microgels (Fig. S1). The XRD pattern of ENX displayed characteristic peaks at 2Ө=7.3°, 2Ө=9.8° and 2Ө=15° [S1]. Pure carrageenan microgels showed no defined peaks in the 2θ= 7° – 20° range while the peaks at 2Ө=28°, 2Ө=40.5° and 2Ө=50.2° are related to residual KCl [S2, S3]. The XRD spectrum of the ENX-loaded microgels showed two peaks at 2Ө = 4.8° and 2Ө = 10.5°. The appearance of these peaks confirms the presence of ENX in the loaded microgels.

Figure S1. XRD spectra of ENX, carrageenan microgels and carrageenan microgels loaded with ENX

**References**

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