pharmaceutics

# Supplementary Materials: Comparative Evaluation of Solubility, Cytotoxicity and Photostability Studies of Resveratrol and Oxyresveratrol Loaded Nanosponges

**Nilesh Kumar Dhakar, Adrián Matencio, Fabrizio Caldera, Monica Argenziano, Roberta Cavalli, Chiara Dianzani, Marco Zanetti, José Manuel López-Nicolás and Francesco Trotta**

## 1. Calibration Curve

Beta-cyclodextrin (β-CD and a carbonate standard (diphenyl carbonate; DPC) were mixed together in an increasing molar ratio of 1:1 to 1:8. KBr pellets were prepared by keeping a constant weight for each pellet and FTIR spectra were recorded. A calibration curve was plotted in between $I_{1774}/I_{2929}$ peak ratio vs. molar ratio of β-CD to DPC.

$I_{1774}$ corresponds to the C=O stretching vibration of cross-linker and $I_{2929}$ corresponds to the C–H stretching vibration of β-CD.

A linear calibration curve with a regression coefficient of 0.9971 was obtained.

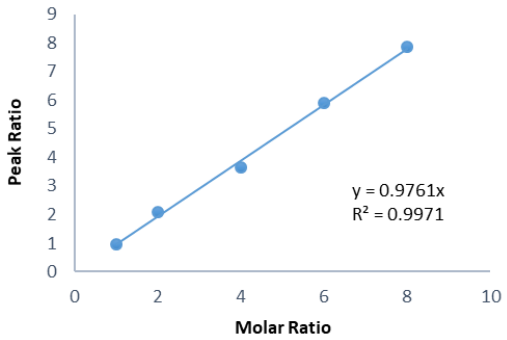


**Figure S1.** Calibration Curve of β-CD and carbonate standard.

Comparison of reference (β-CD: DPC; 1:4) and sample (nanosponges) spectra are shown below.

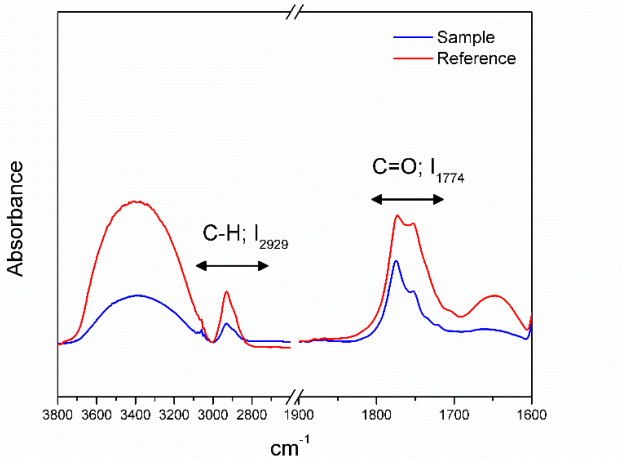


**Figure S2.** Reference and sample FTIR spectra.

**Table S1.** Crosslinking density determination.

| Nanosponges | Standard | | Sample | | % Crosslinking = Sample $I_{1774}/I_{2929}$ Value ÷ Reference $I_{1774}/I_{2929}$ Value*100 |
|---|---|---|---|---|---|
| | Molar Ratio (Crosslinker: β-CD) | Reference $I_{1774}/I_{2929}$ Value | Sample $I_{1774}/I_{2929}$ Value | Calculated Molar Ratio (Crosslinker: β-CD) | |
| CDNSs | 4 | 3.650 | 2.920 | 2.99 | 80% |