

## **- Supplementary Information -**

# **Synthesis of Water-soluble Chitosan-Coated Nanoceria with Excellent Antioxidant Properties**

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**Table S1** Assignment of the infrared spectra of free chitosan and of chitosan-coated nanoceria (band positions in  $\text{cm}^{-1}$ )

<b>Chitosan</b>	<b>chitosan-coated nanoceria</b>	<b>Assignment</b>
3350		$\nu$ (O - H) + $\nu$ (N - H)
	3360	$\nu$ (O - H)
	3248	$\nu$ (N - H)
2931, 2895	2946	$\nu$ (CH <sub>2</sub> ) + $\nu$ (CH <sub>3</sub> ) + $\nu$ (CH)
1613	1627	amide I
1512	1514	amide II + $\delta$ (NH <sub>2</sub> )
1416	1413	$\delta$ (CH <sub>2</sub> ) + $\delta$ (CH <sub>3</sub> )
1380	1352	$\delta$ (CH)
1324		amide III
1248		
1154	1156	$\nu_{\text{as}}$ (C - O - C) bridge
1080	1087	$\nu$ (C - O - C) pyranose ring