Polymer-lipid hybrid nanoparticles co-encapsulating fucoxanthin and carbon dots for targeted anti-inflammatory therapy in Alzheimer´s disease

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Supplementary data

Figures

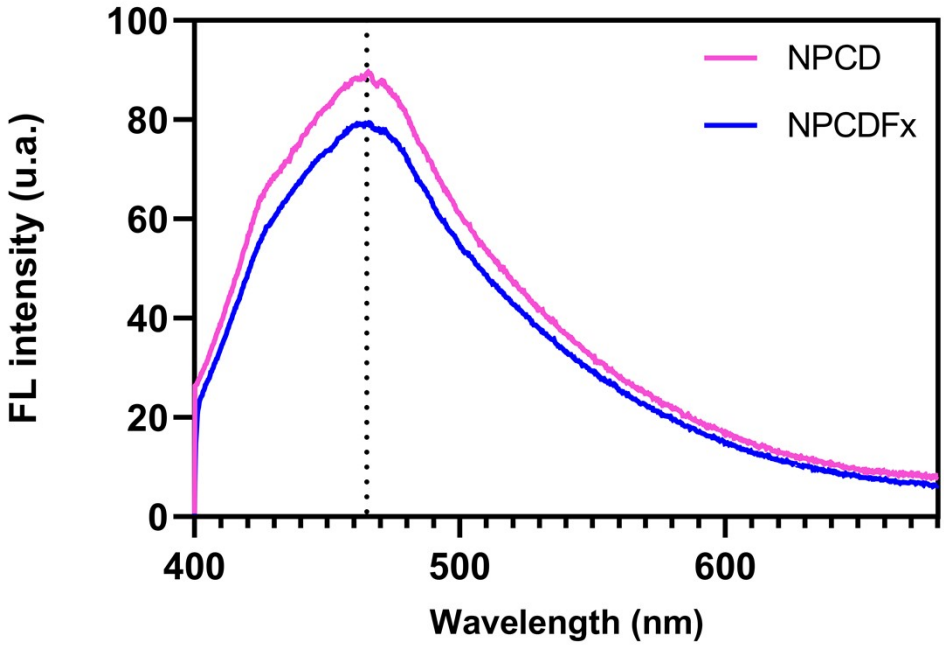

Figure S1. Fluorescence emission spectra (λex = 370 nm) of the supernatant obtained from the washings of the NPs. Peak at 465 nm confirms the presence of CDs within the NPCD and NPCDFx systems. The characteristic emission peak at 465 nm confirms the presence of unencapsulated CDs in the supernatant. Although a significant fraction of the initial CD content was recovered during the washing process, the lower fluorescence intensity observed for the NPCDFx supernatant compared to NPCD suggests a higher encapsulation efficiency when Fx and CDs are co-loaded into the hybrid system.

Gen	Gene ID	Sequence	Tm	Bp	G/C%	Amplicon length (Pb)	Reference
GAPDH	2597	F: GCATCTTCTTGTGCAGTGCC	58	20	55	105	1
		R: GAGAAGGCAGCCCTGGTAAC	59	20	60		
IL-6	3569	F: GCCCTTCAGGAACAGCTATGA	59	21	52	80	2
		R:TGTCAACAACATCAGTCCCAAGA	58	23	43		
S100β	6285	F: GGAGAGAGGGTGACAAGCAC	58	20	60	142	1
		R: CCATCCCCATCTTCGTCCAG	59	20	60		
APP	351	F: CCTGCTCTACAACGTCCCTG	60	20	60	237	PRIMER3
		R: CCAAAAGGATGCCACGGTTG	60	20	55		
GFAP	2670	F: GCGAAGAAAACCGCATCACC	59	20	55	77	3
		R: TTTGGTGTCCAGGCTGGTTT	59	20	50		

Table S1. Primer sequences and characteristics of rat genes evaluated by qPCR in rat astrocytes RA-005. Abbreviations: glyceraldehyde-3-phosphate dehydrogenase (GAPDH), interleukin 6 (IL-6), S100 calcium-binding protein B (S100β) amyloid precursor protein (APP), glial fibrillary acidic protein (GFAP), primer melting temperature (Tm), base pair (Bp), guanine (G) and cytosine (C).APP primers were design in PRIMER3.

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