Supplementary Information

Blue and cyan fluorescent carbon dots: One-pot synthesis, selective cell imaging and their antiviral activity

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1. Hydrodynamic diameters of the two types of CDs

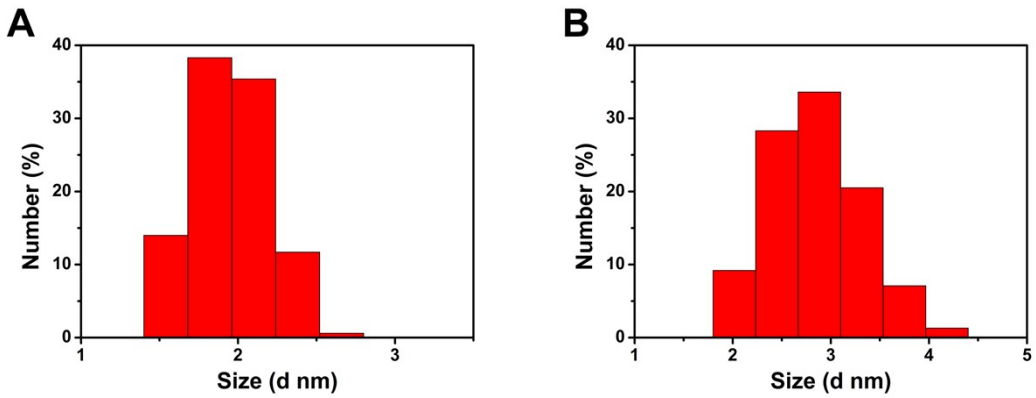

Fig. S1. The size distribution of b-CDs (A) and c-CDs (B) in aqueous solution measured by dynamic light scattering.

2. Cytotoxicity assay of the two types of CDs on HeLa cells and MARC-145 cells

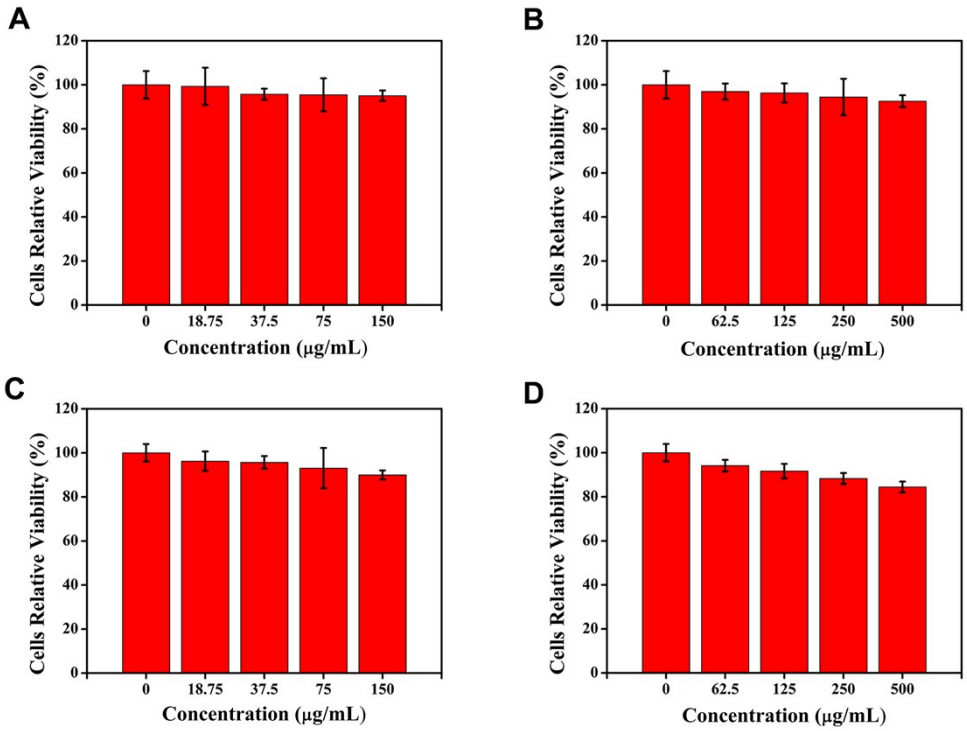

Fig. S2. Cell viability assay of HeLa cells treated with b-CDs (A) and c-CDs (B), and MARC-145 cells treated with b-CDs (C) and c-CDs (D), respectively.

3. Primers used for real-time RT-qPCR

Table S1 Primers used for real-time RT-qPCR in this study.

Primer name		Primer sequence (5′→3′)
IFN-α	Forward	TCTGCAAGGTTCCCAATGG
	Reverse	AGATGGCATTGCAGCTGAGTAG
IFN-β	Forward	GCTAACAAGTGCATCCTCCAAA
	Reverse	AGCACATCATAGCTCATGGAAAGA
ISG54	Forward	CTGGCAAAGAGCCCTAAGGA
	Reverse	CTCAGAGGGTCAATGGAATTCC
MX1	Forward	GGCGTGGGAATCAGTCATG
	Reverse	AGGAAGGTCTATGAGGGTCAGATCT

4. Fluorescence lifetimes of the two types of CDs

Table S2 Fluorescence lifetimes of the two types of CDs when fitted with a double-exponential decay function.

Sample	Fitting parameters (double-exponential)					
	τ_1 (ns)	α_1 (%)	τ_2 (ns)	α_2 (%)	τ (ns)	χ^2
b-CDs	2.87	22.32	10.58	77.68	8.86	0.996
	2.72	19.80	10.54	80.20	8.99	1.002
	2.82	20.37	10.58	79.63	9.00	1.004
c-CDs	3.09	13.85	8.89	86.15	8.09	0.998
	2.67	10.21	8.83	89.79	8.20	0.994
	2.97	11.38	8.83	88.62	8.16	1.004