Supporting Information

Water Solubility and Folate Receptor Affinity-Driven Plasma Membrane-Targeted Carbon Dots for Cancer Cell Imaging

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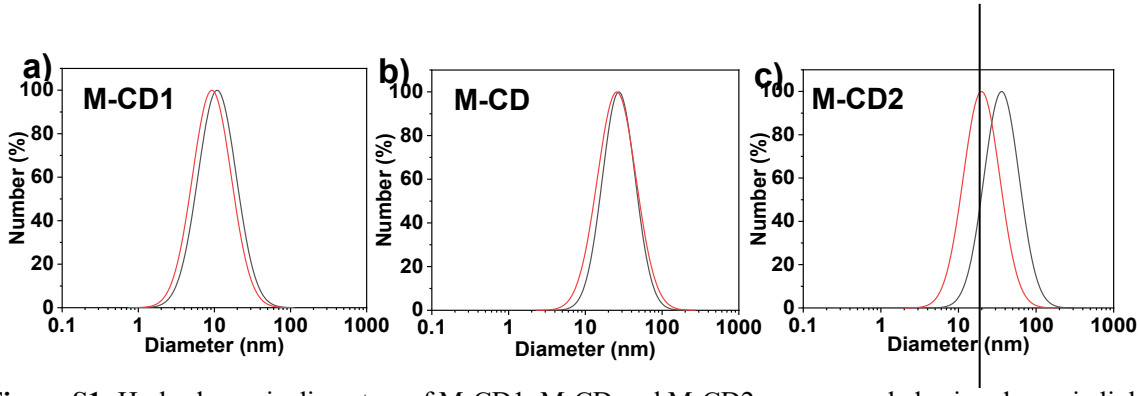

Figure S1. Hydrodynamic diameters of M-CD1, M-CD and M-CD2 were recorded using dynamic light scattering (DLS) in aqueous solution. Black: fresh prepared M-CDs aqueous solution (20 μg/mL). Red: M-CDs aqueous solution left for 30 days.

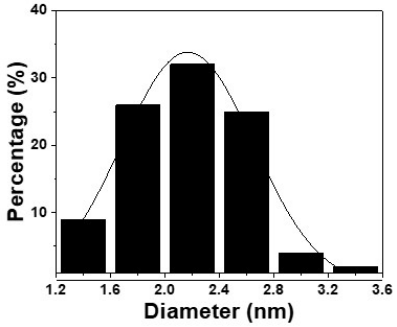

Figure S2. The particles size distribution of M-CD (1:10).

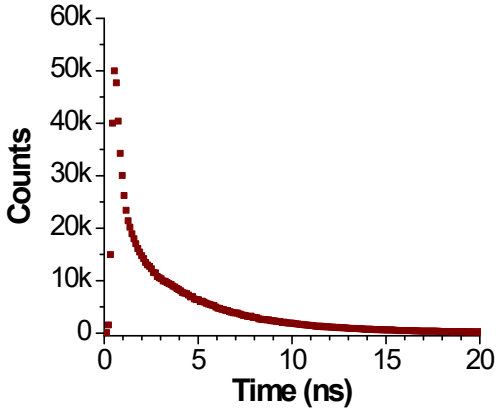

Figure S3. Fluorescence decay profiles of M-CD.

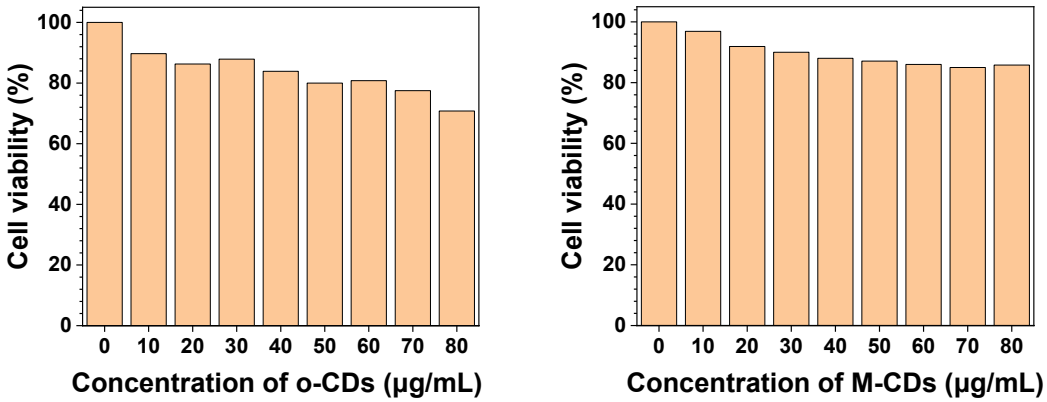

Figure S4. Viability of HepG2 cells in the presence of o-CDs or M-CD (at a 1:10 ratio) was measured using the MTT assay.

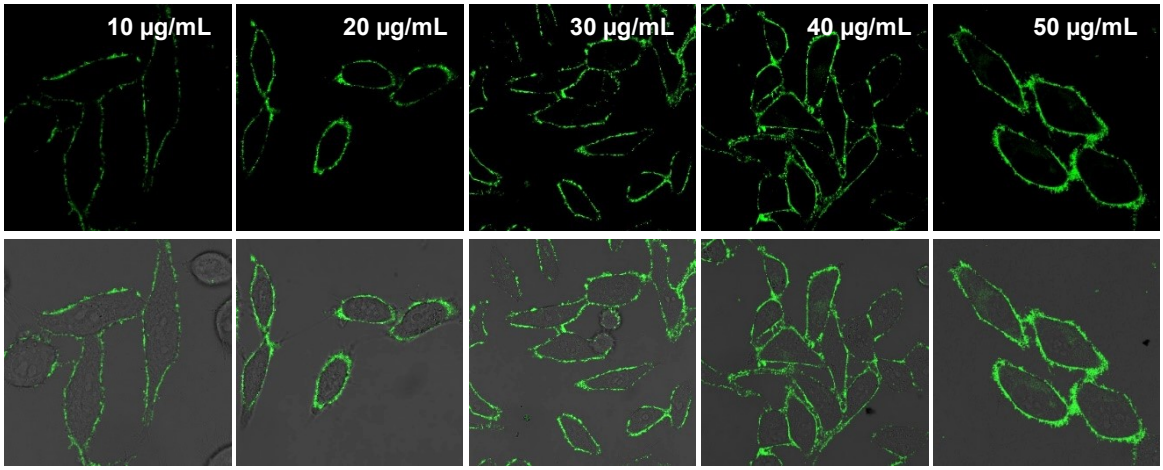

Figure S5. Fluorescent confocal images of HepG2 cells co-incubated with different concentrations of the M-CD.

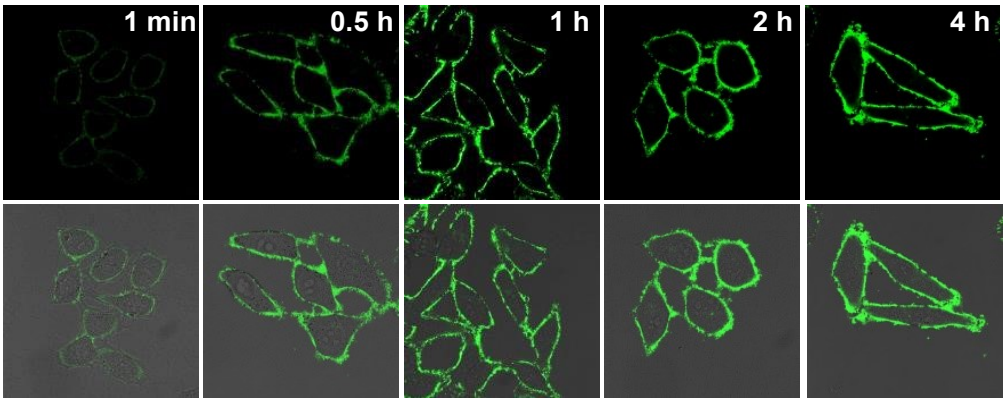

Figure S6. Fluorescent confocal images of HepG2 cells co-incubated with 20 μg/mL M-CD for different times.

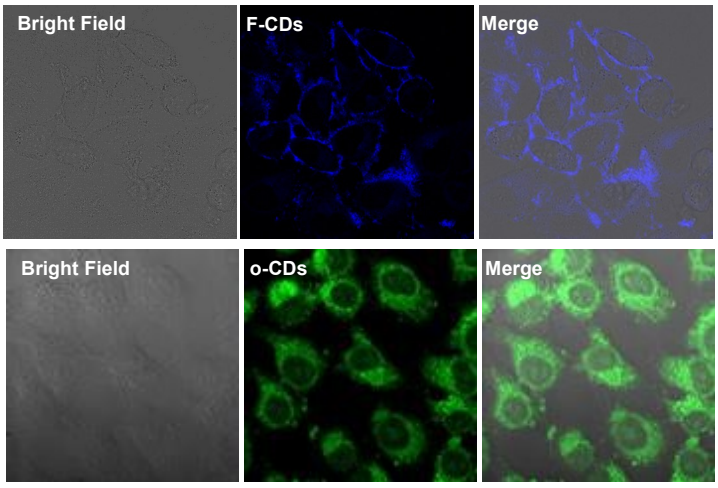

Figure S7. Fluorescent confocal images of HeLa cells co-incubated with 20 μg/mL F-CDs or o-CDs for 1 hour. The images were taken under confocal microscope with an excitation of 405 nm and emission windows were 450-550 nm and 500-650 nm for F-CD and M-CD, respectively.

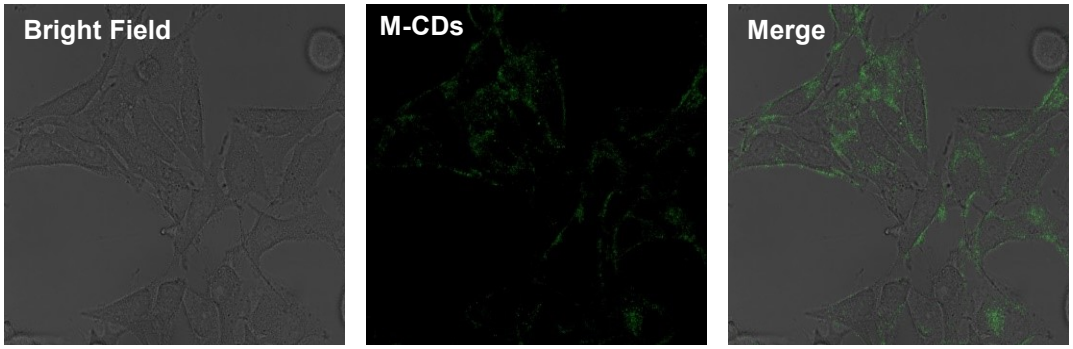

Figure S8. Fluorescent confocal images of folic acid-saturated HepG2 cells. The cells were pretreated with folic acid for 2 hours and then co-incubated with 20 μg/mL M-CD for 1 hour.

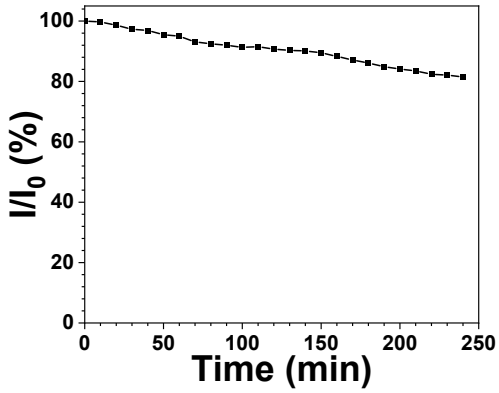

Figure S9. The photostability of M-CDs under 365 nm UV irradiation.

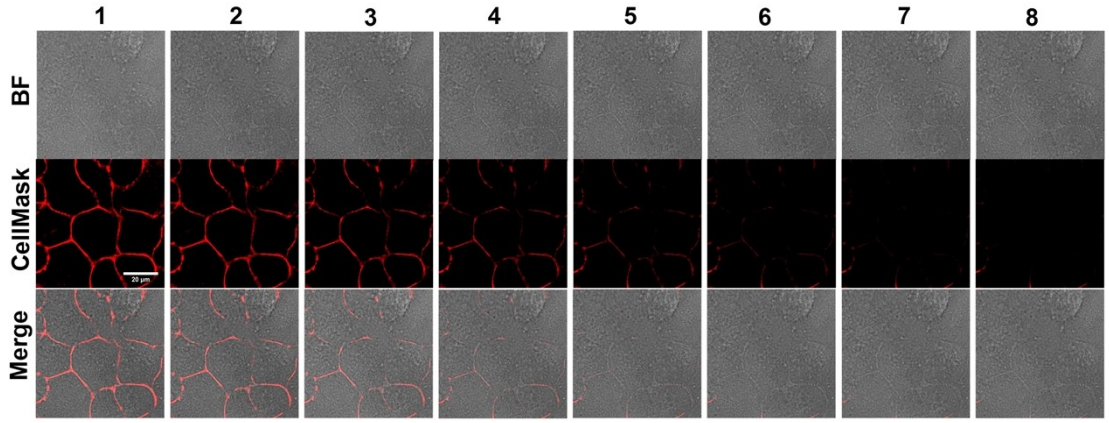

Figure S10. The photostability of CellMask Deep Red measured by confocal time-lapse imaging.

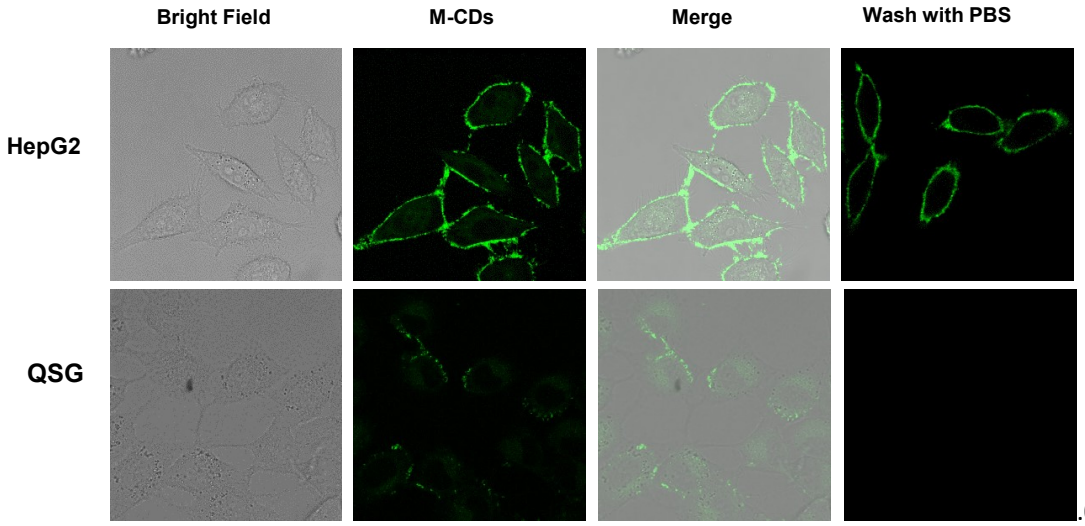

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Figure S11. Fluorescent confocal images of HepG2 and QSG cells co-incubated with 20 μg/mL M-CD for 1 hour before and after PBS wash.

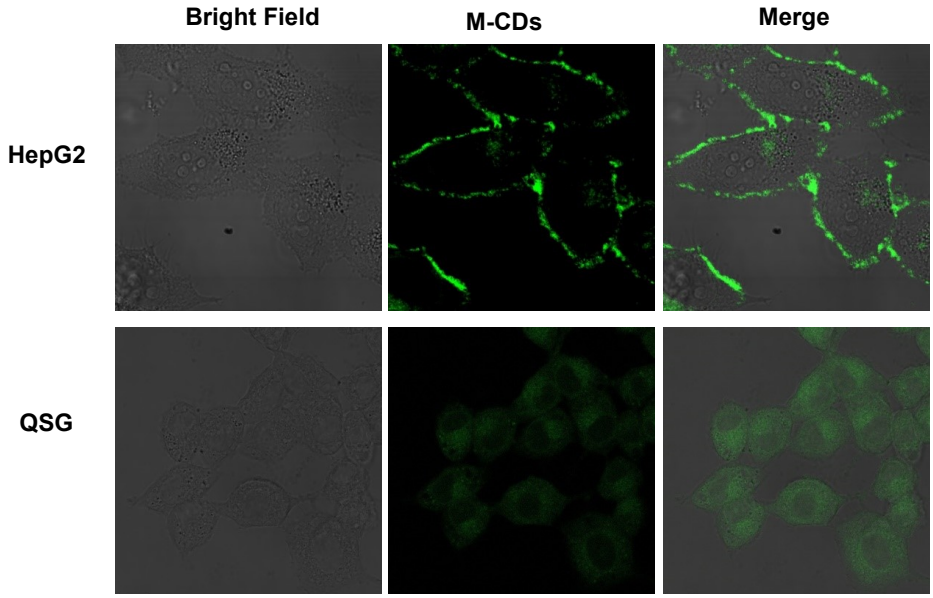

Figure S12. Fluorescent confocal images of fixed HepG2 and QSG cells co-incubated with 20 μg/mL M-CD for 1 hour.