Supporting Information for:

Study on effects of naphthalimide derivative-capped quantum dots on the cellular internalization, proliferation, and apoptosis ability

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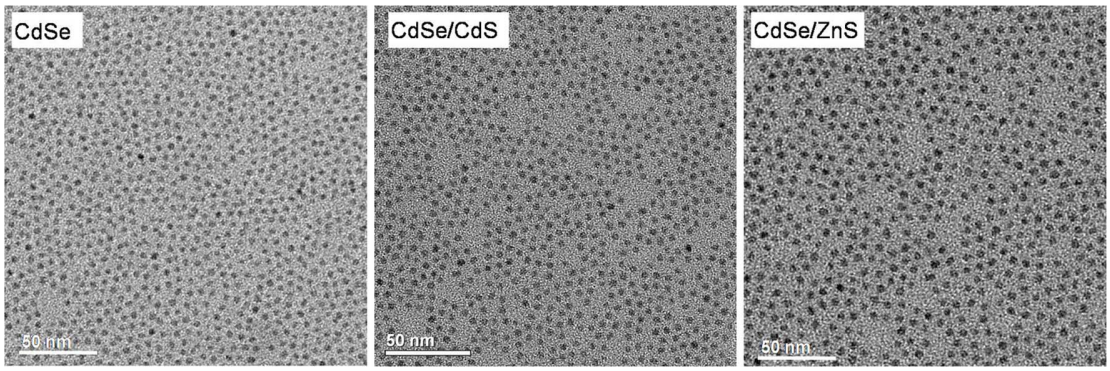

Fig. S1 TEM images of the QD. Scale bars: 50 nm.

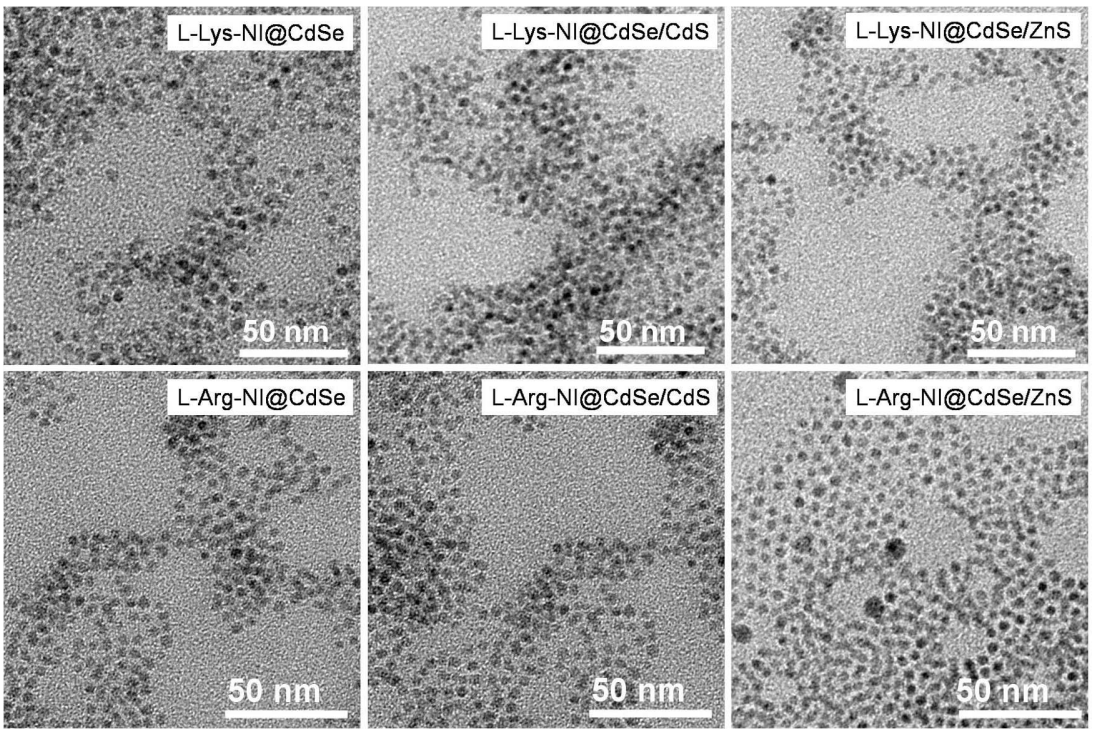

Fig. S2 TEM images of the naphthalimide derivative-capped QDs. Scale bars: 50 nm.

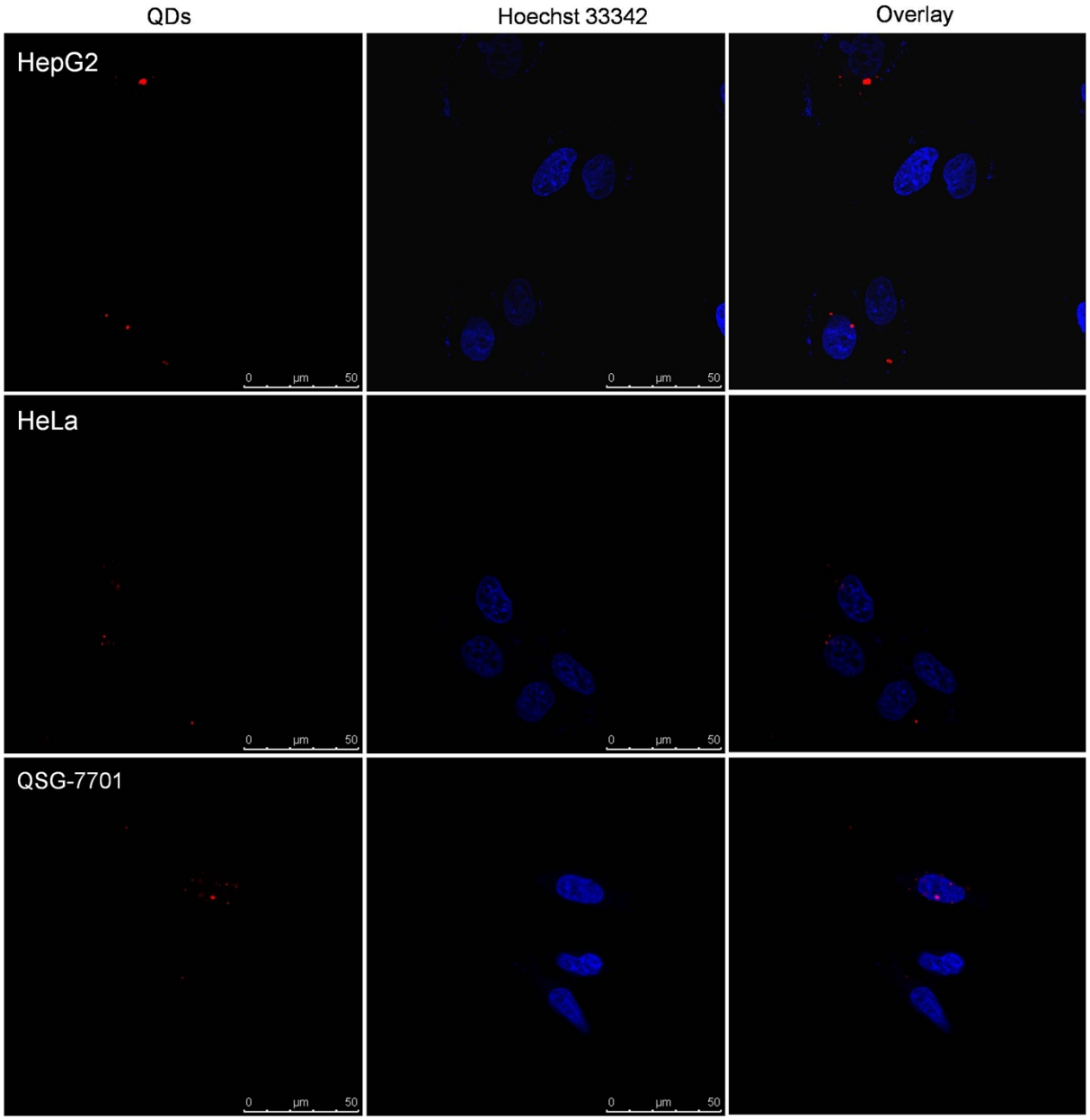

Fig. S3 Confocal images of living cells (HepG2, HeLa, and QSG-7701) loaded with CdSe/ZnS under identical conditions. CdSe/ZnS QDs solution (0.3 μM) were used and incubated with the cells at 37 °C for 12 h. In all cases, blue represents emission from Hoechst 33342 and red represents emission from QDs.

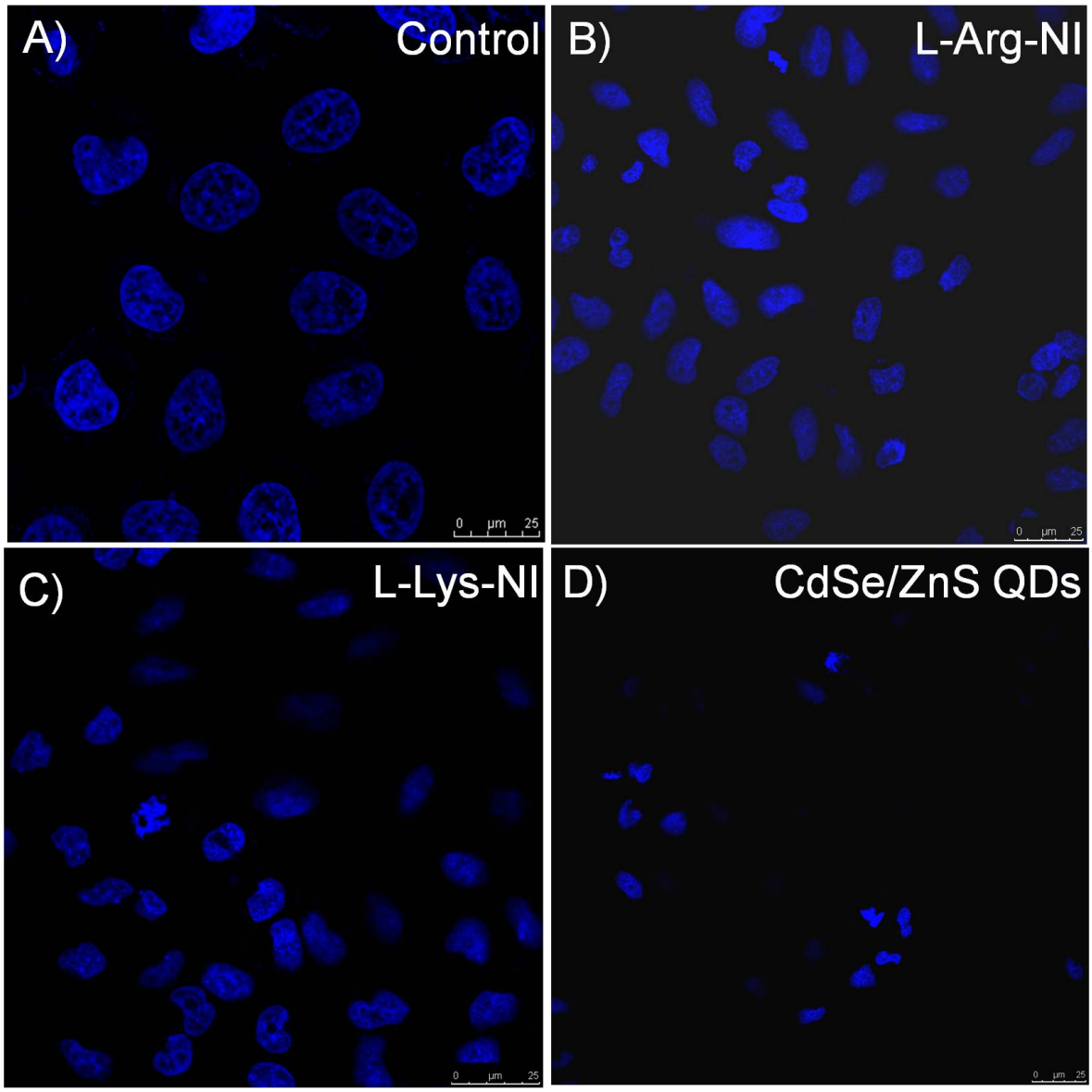

Fig. S4 Morphological changes were examined by Hoechst 33342 staining and observed with a confocal microscope. HepG2 cells were treated with L-Arg-NI, L-Arg-NI (B), L-Lys-NI (C), CdSe/ZnS (D) for 24 h.

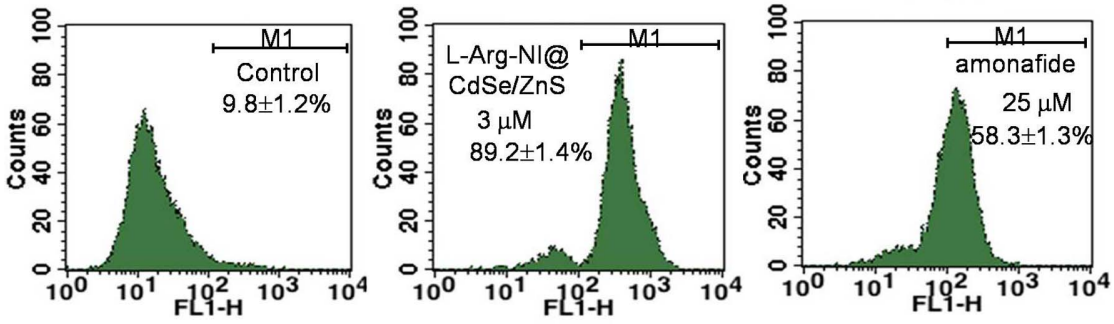

Fig. S5 The results of flow cytometry of the stages of apoptosis.

Table S1 The cytotoxicity activity of the naphthalimide derivatives, QDs, and naphthalimide derivative-capped QDs.

Samples	IC_{50} (μM)[a]		
	HepG2	QSG-7701	HeLa
L-Arg-NI@CdSe	1.82 ± 0.22	9.32 ± 0.13	1.98 ± 0.19
L-Arg-NI@CdSe/CdS	2.86 ± 0.26	20.35 ± 0.16	2.98 ± 0.14
L-Arg-NI@CdSe/ZnS	3.22 ± 0.28	35.26 ± 0.17	3.95 ± 0.17
L-Lys-NI@CdSe	1.61 ± 0.24	7.52 ± 0.14	1.86 ± 0.16
L-Lys-NI@CdSe/CdS	1.58 ± 0.23	7.97 ± 0.16	1.92 ± 0.27
L-Lys-NI@CdSe/ZnS	2.67 ± 0.17	10.56 ± 0.23	2.86 ± 0.24
Amonafide	28.69 ± 0.27	38.57 ± 0.17	33.65 ± 0.26
L-Arg-NI	28.61 ± 0.46	48.45 ± 0.47	29.27 ± 0.56
L-Lys-NI	26.52 ± 0.52	42.26 ± 0.44	24.36 ± 0.51
CdSe	0.25 ± 0.12	0.28 ± 0.08	0.23 ± 0.11
CdSe/CdS	0.28 ± 0.09	0.31 ± 0.08	0.26 ± 0.08
CdSe/ZnS	0.38 ± 0.13	0.46 ± 0.07	0.35 ± 0.12

[a] IC_{50} values are given in μM, and the data are presented as mean values ± standard deviations, and cell viability is assessed after 48 h of incubation.