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Supplementary Information

Fabrication of ZnO nanoplates for visible light-induced imaging of living cell

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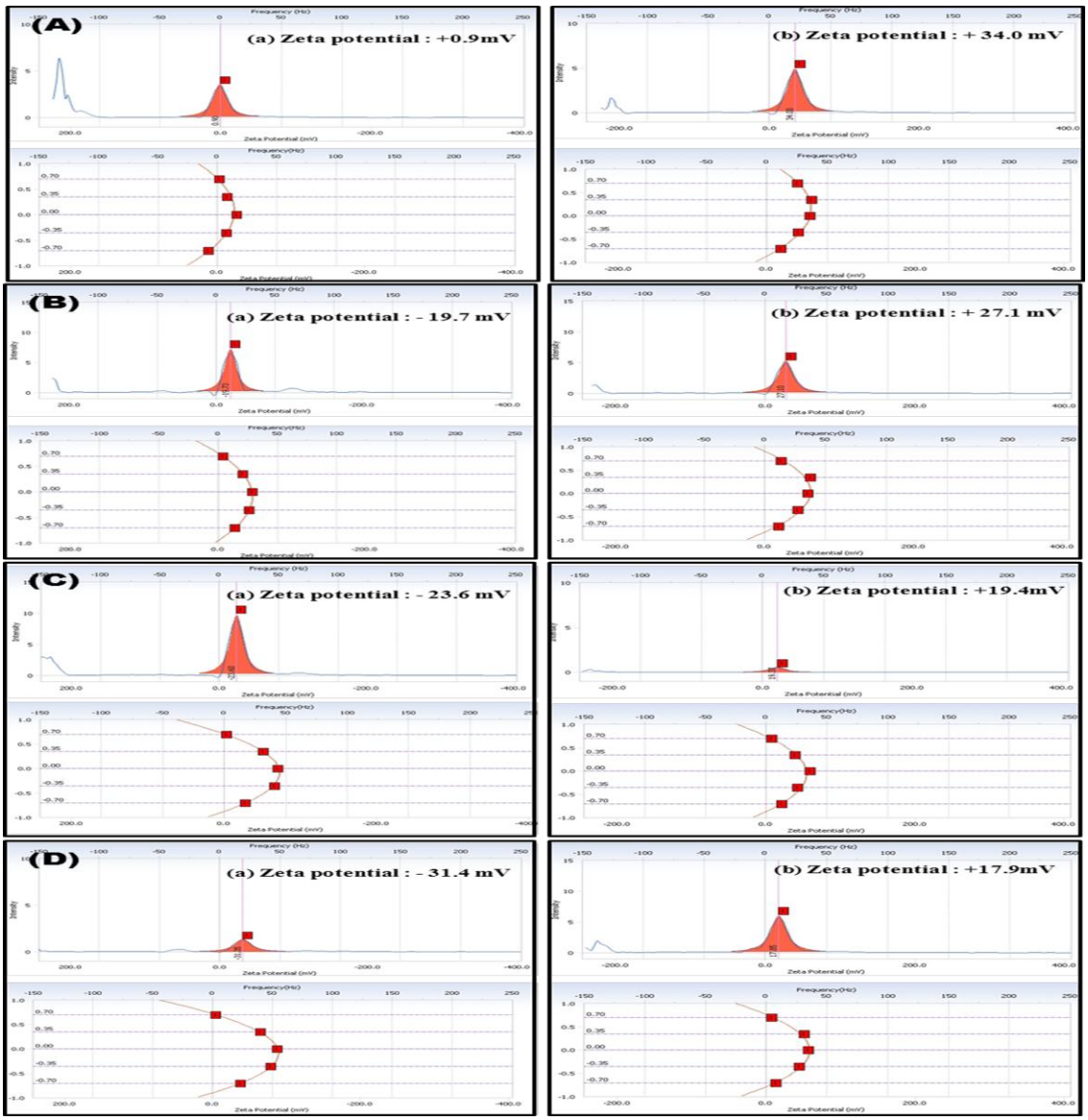

Figure S1. Surface charge or zeta potential of (a) ZnO NPls and (b) APTES-ZnO NPls were measured in deionized water at (A) pH 4.2, (B) pH 7.0, (C) pH 7.8 (in buffer) and (D) pH 10.1 by laser doppler velocimetry (LDV).

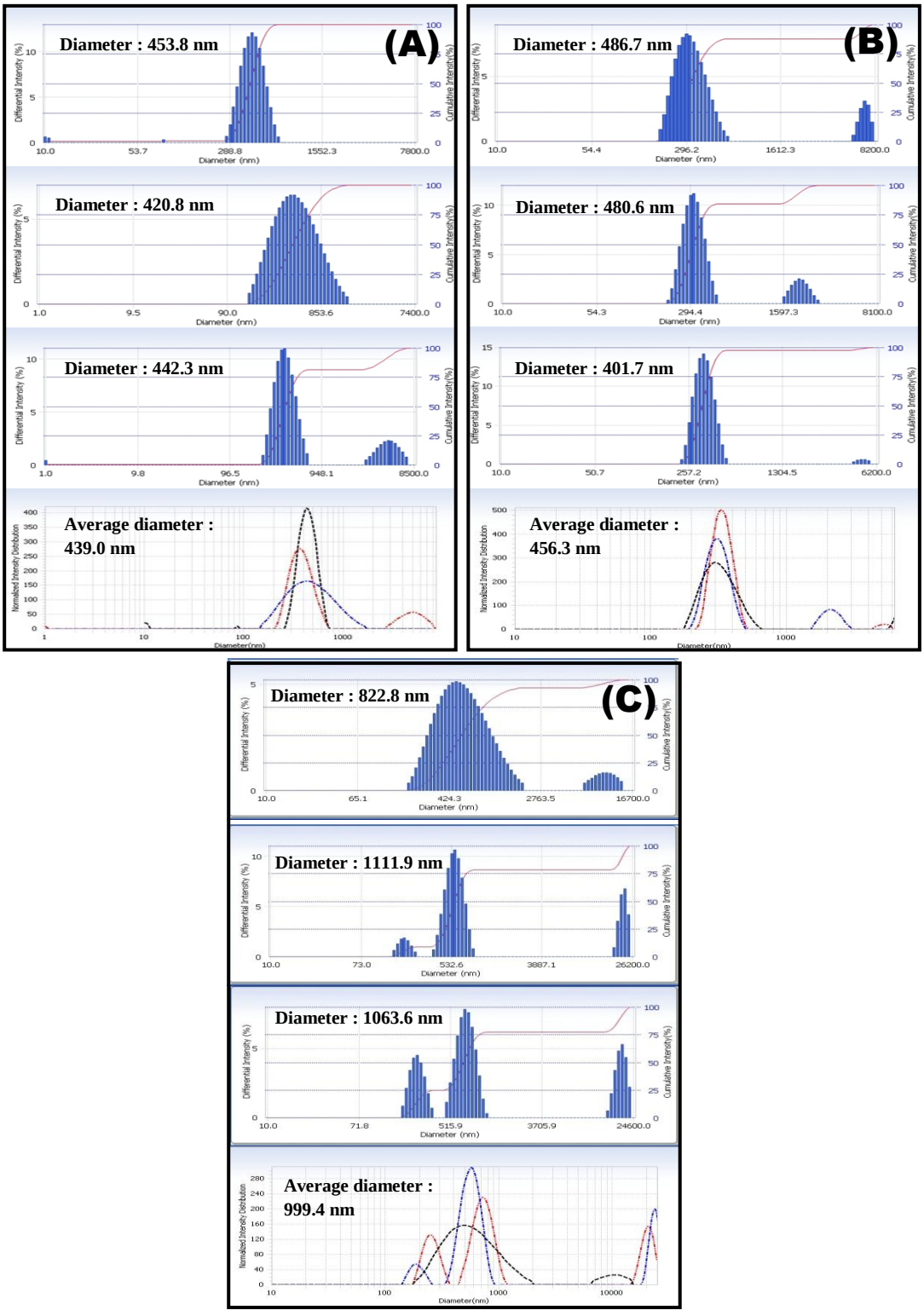

Figure S2. Sizes of (A) ZnO NPls, (B) APTES-ZnO NPls and (C) ZnO nanoparticles in deionized water at pH 7.0 were measured by dynamic light scattering (DLS).

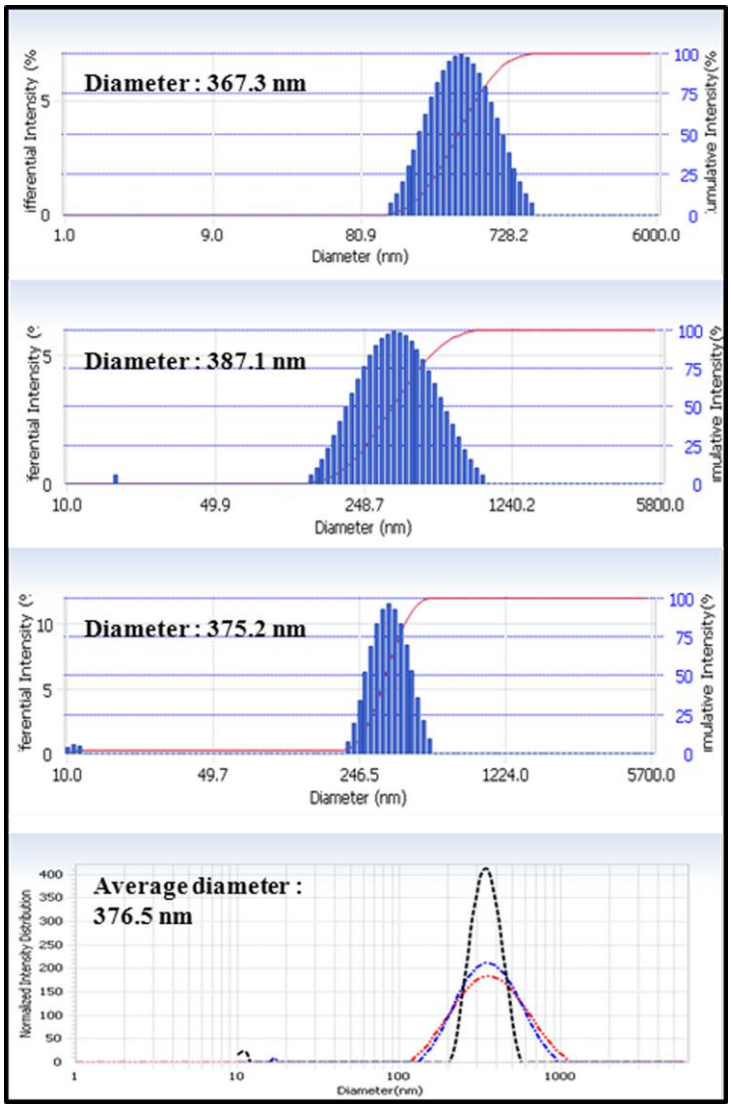

Figure S3. Sizes of APTES-ZnO NPls in cell culture medium at pH 7.2 were measured by dynamic light scattering (DLS).

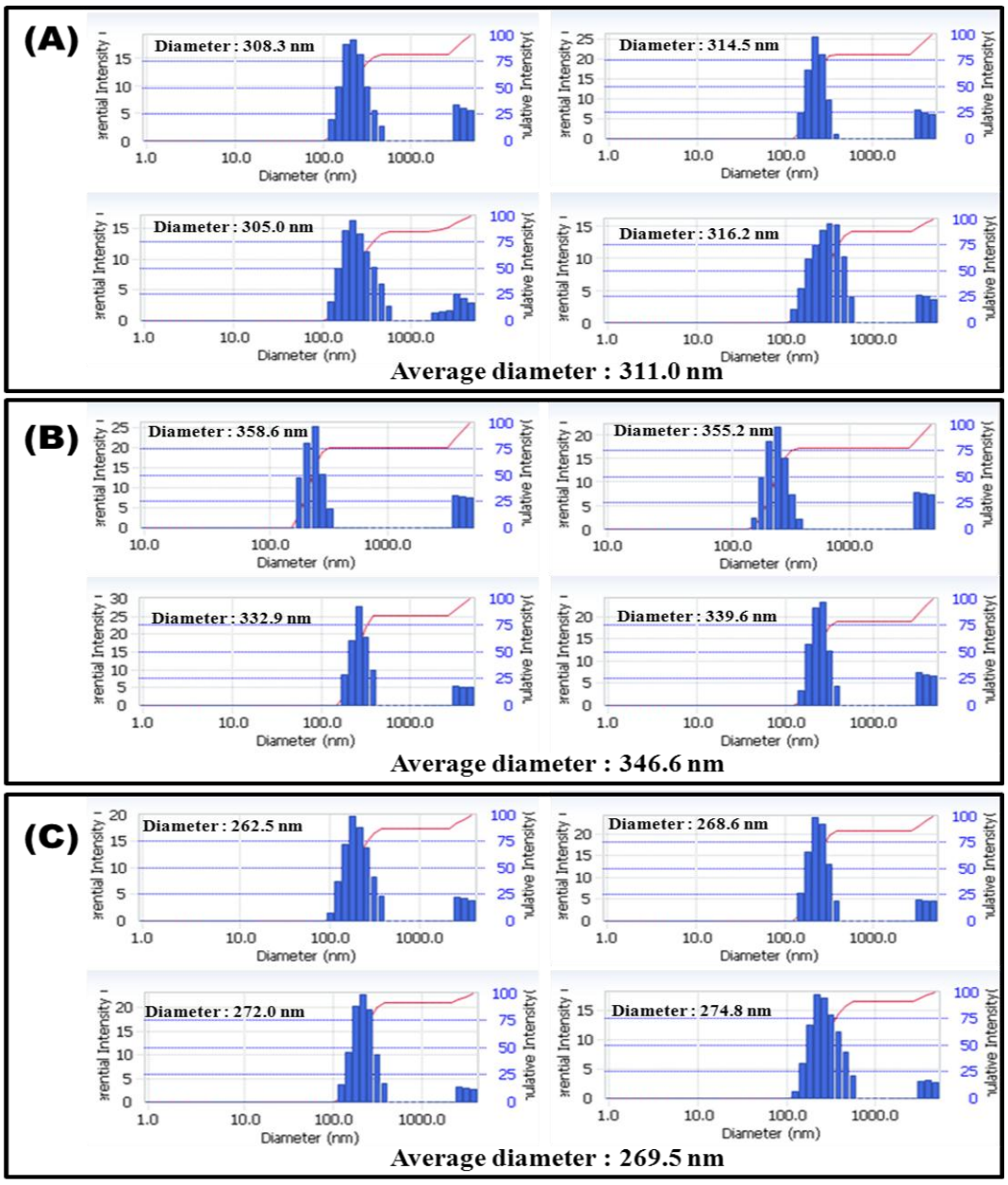

Figure S4. Sizes of ZnO NPls in deionized water at (A) pH 4.2, (B) pH 7.8 (in buffer) and (C) pH 10.1were measured by dynamic light scattering (DLS).

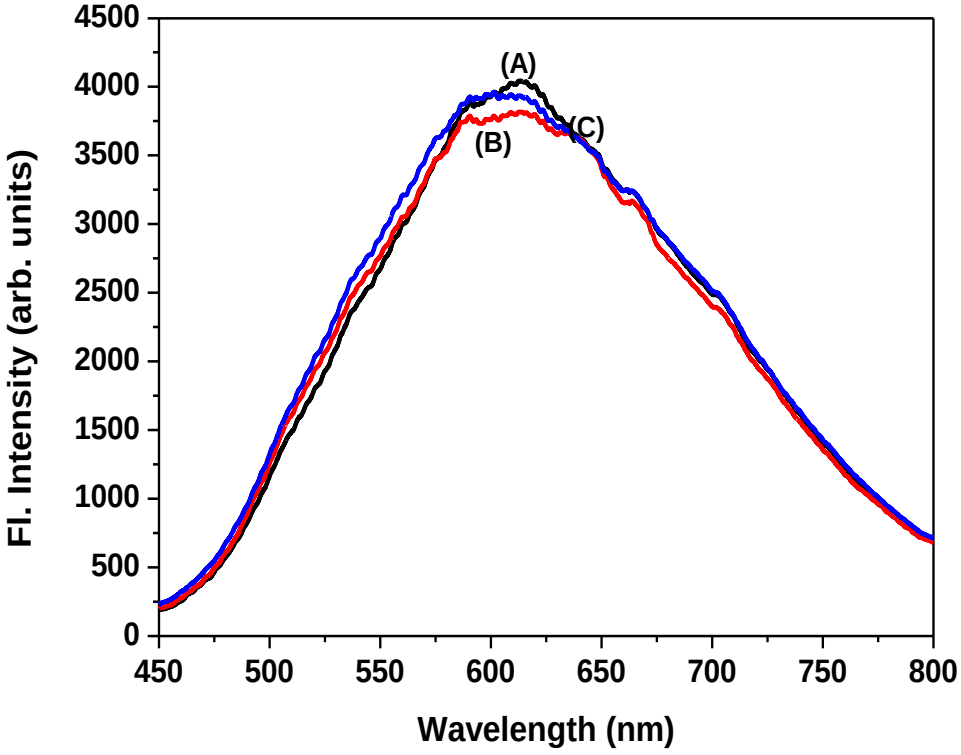

Figure S5. Fluorescence emission spectra of the APTES-ZnONPls in deionized water at pH 7.0 after different storage times at room temperature under visible light of 410nm: (A) the fresh sample, (B) after 1 day and (C) after 7 days

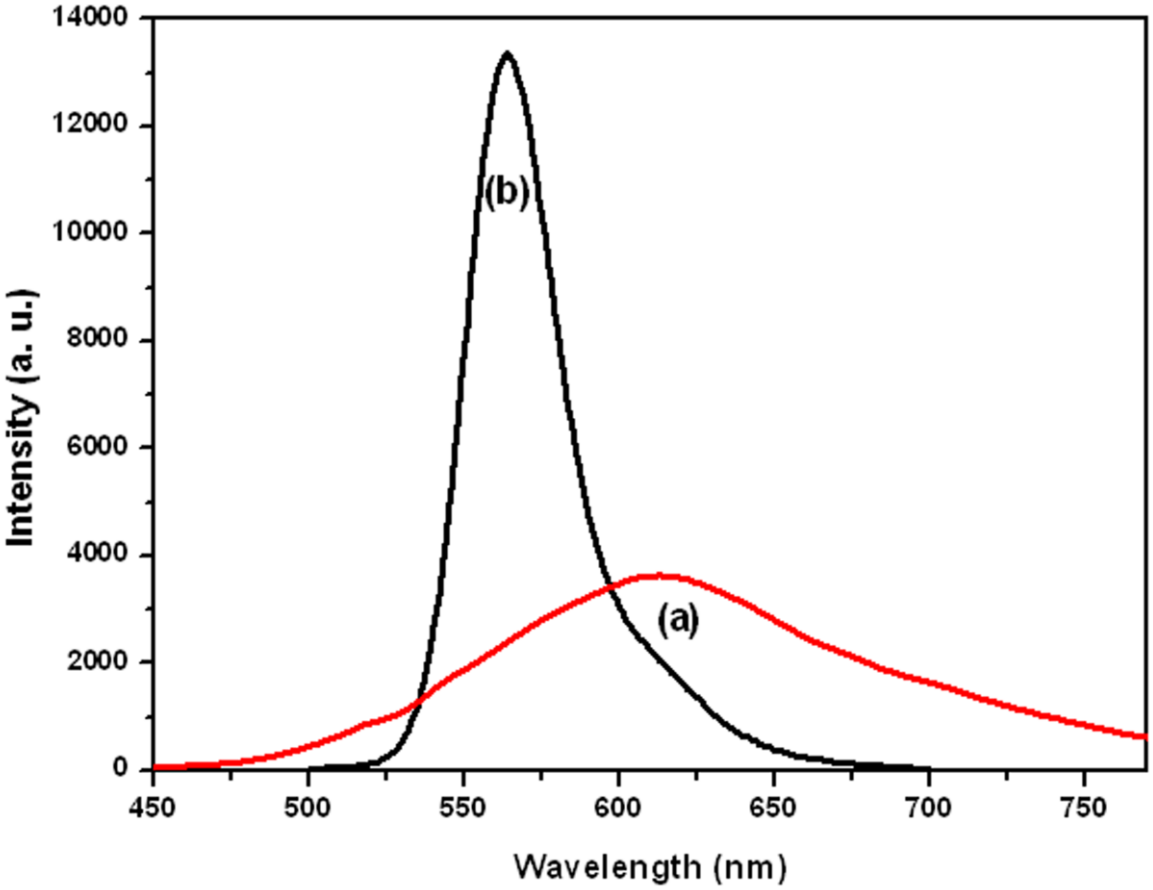

Figure S6. Fluorescence emission spectra of (a) the APTES-ZnO NPls versus (b) the standard rhodamin B ethanol solution (QY = 65%) when evaluating the quantum yield of the APTES-ZnO NPls colloids (QY = 53%).

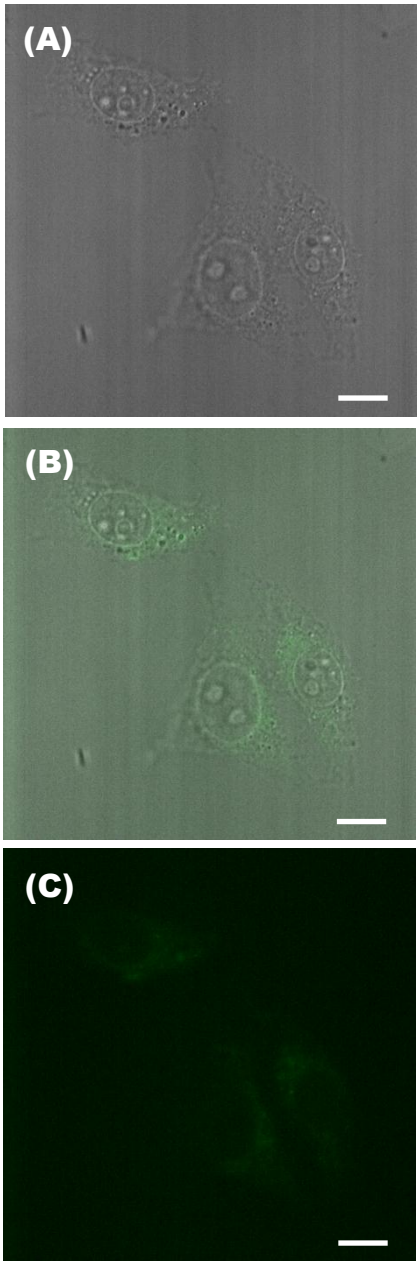

Figure S7. (A) DIC image and (B) merge image of HeLa. (C) Confocal auto-fluorescence image of HeLa cell without ZnO NPls. The sizes of scale bars are 10 μm.

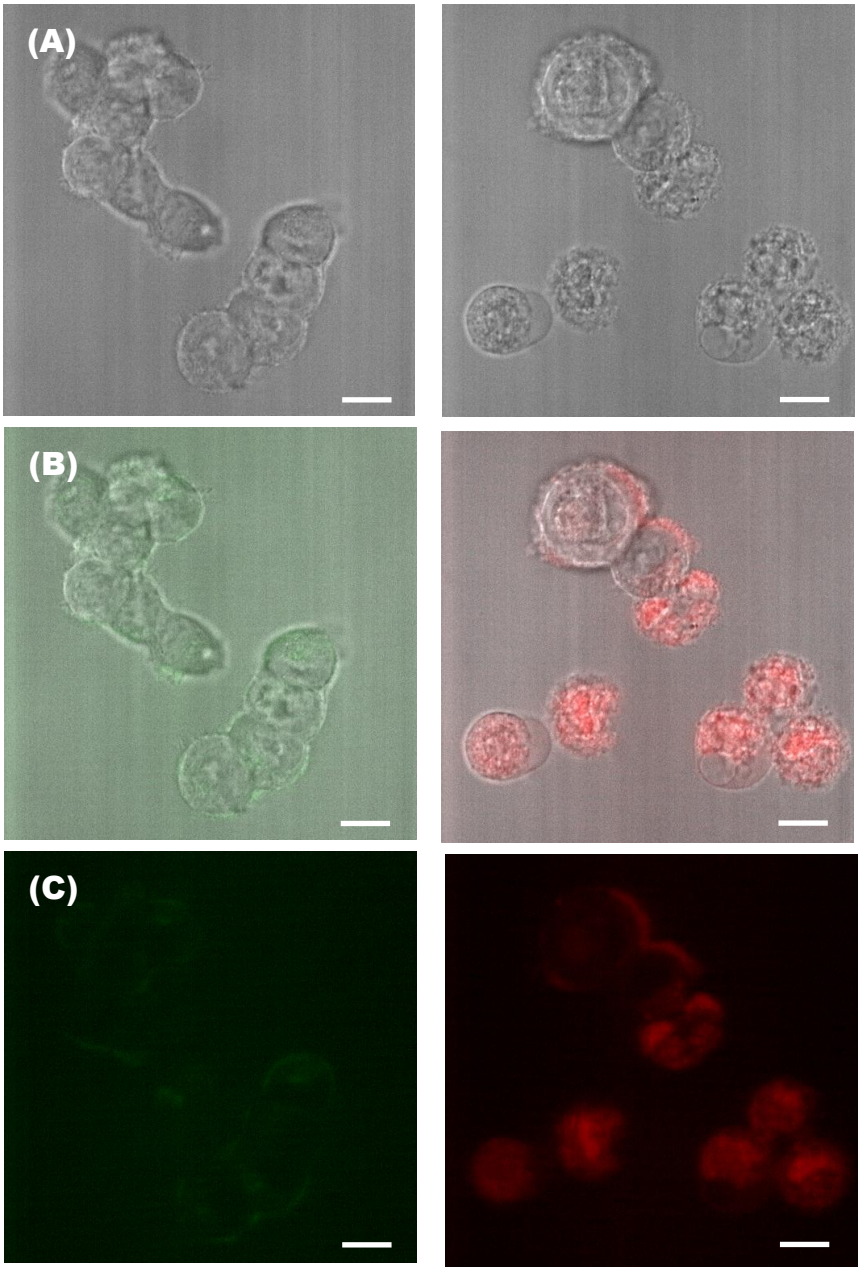

Figure S8. (A) DIC images, (B) merge images and (C) Confocal auto-fluorescence image of HEK 293 cells (left) and fluorescence image of HEK 293 cell containing APTES-ZnO NPls (right). The sizes of scale bars are 10 μm.