Electronic Supporting Information for

Surface labeling of enveloped virus with polymeric imidazole ligand-capped quantum dots *via* metabolic incorporation of phospholipids into host cells

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Supporting Figures

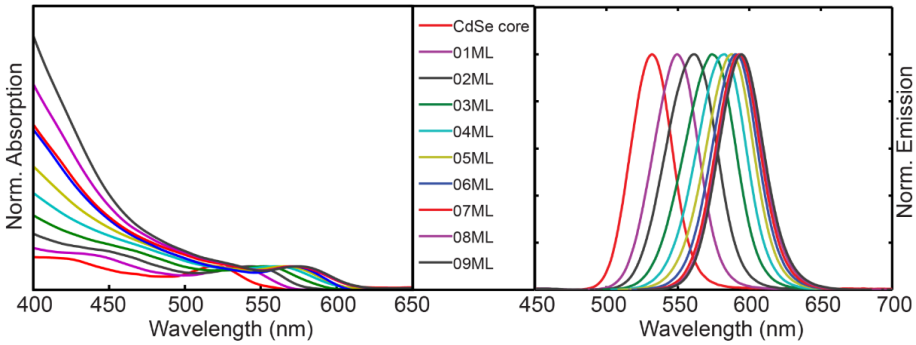

Fig. S1 The absorption (left) and emission (right) spectra of aliquots taken during the overcoating processes of CdSe/CdZnS QD samples. Aliquots were taken after CdSe core purification and after each monolayer injection of the SILAR process. The spectra were normalized to the position of the lowest energy extinction peak.

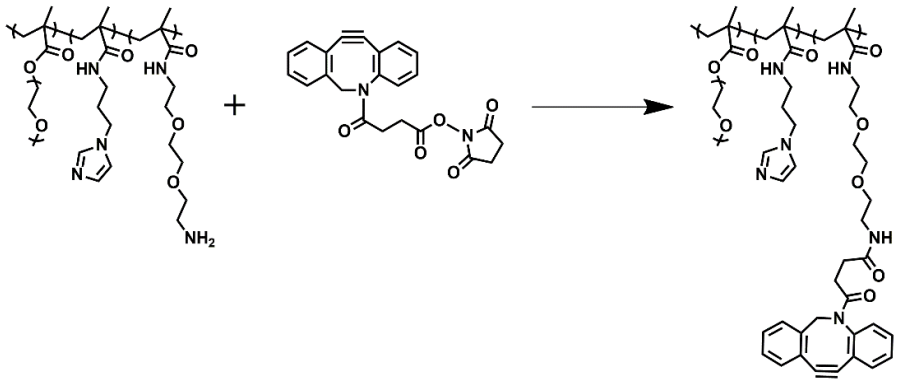

Fig. S2 Reaction scheme for preparation of DBCO-bearing methacrylate-based polymeric imidazole ligands.

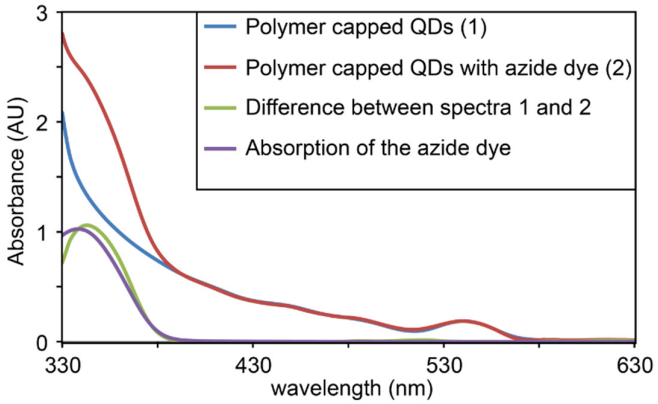

Fig. S3 The presence and reactivity of DBCO groups on PIL-QDs-DBCO is detected by absorbance measurement using 3-azidocoumarin dye.

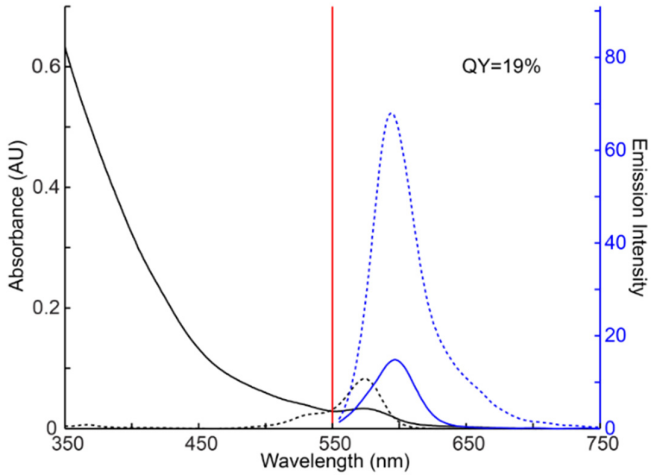

Fig. S4 Quantum yield (QY) measurement of PIL-QDs-DBCO after 6 months storage at 4 °C. The excitation wavelengths used for each measurement are marked by the red line. Absorption spectra (black) and emission spectra (blue) of QDs are shown as solid lines, while dashed lines indicate rhodamine 640.

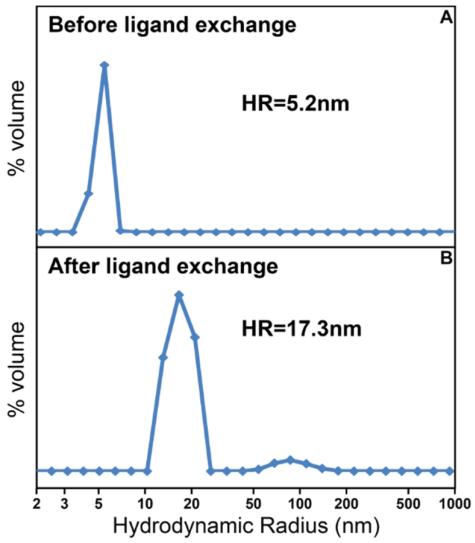

Fig. S5 DLS measurement of GPC purified CdSe/CdZnS QDs before (A) and after (B) the polymeric imidazole capping ligand exchange. The result of PIL modified QDs was recorded after 6 months storage at 4 °C.

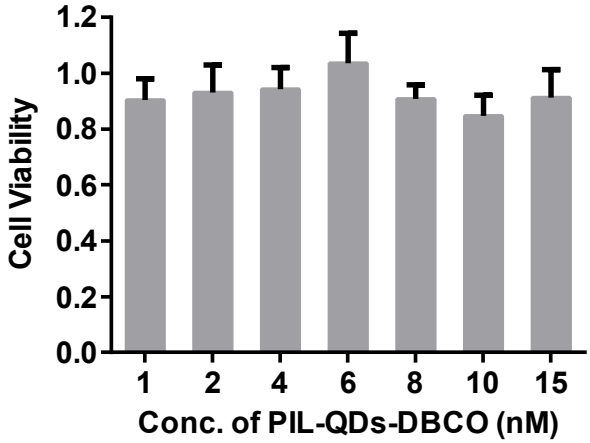

Fig. S6 Potential toxicity of PIL-QDs-DBCO to Vero cells at different concentrations as measured by cell viability assay.

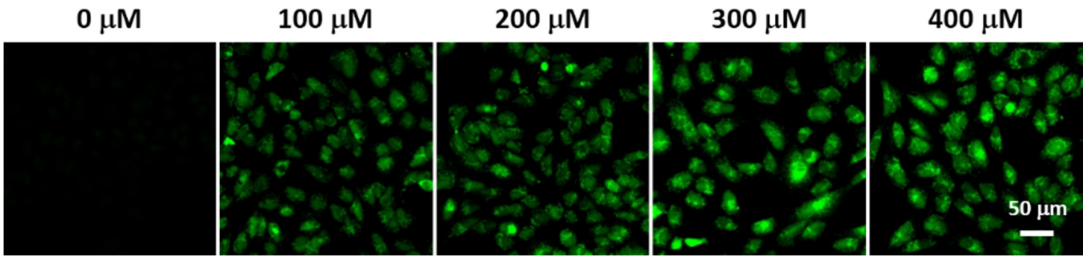

Fig. S7 Fluorescence images indicating metabolic incorporation of AECho into Vero cells at several concentrations. AECho incorporation is visualized by staining with DBCO-Fluor 488 after the cells were fixed. Scale bar indicates 50 μm.

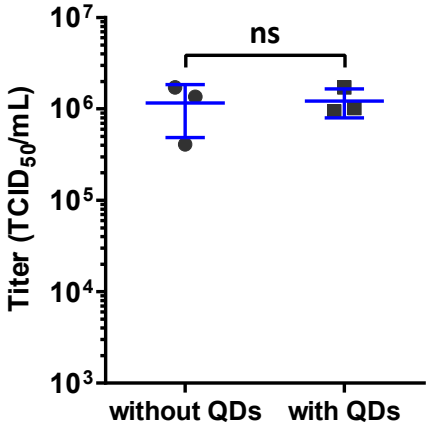

Fig. S8 Measles virus activity with and without QDs attachment. ns stands for not significant.

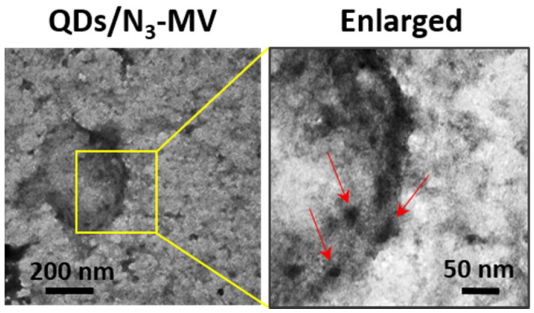

Fig. S9 High-magnification TEM image of the QD labeled measles virus. The red arrows indicate QDs that are attached to the virus surface. Scale bars indicate 200 nm at left, and 50 nm in the enlarged view.