

Supplementary Information for

Cytosolic delivery of membrane-penetrating QDs into T cell lymphocytes: implications in immunotherapy and drug delivery

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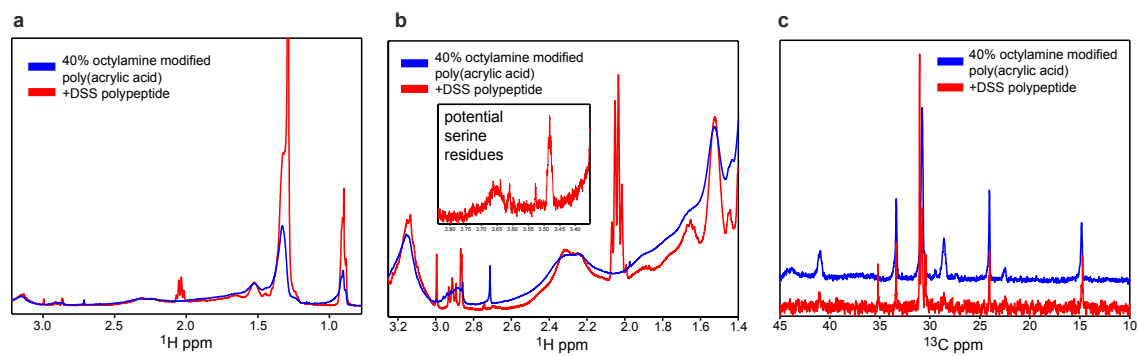
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This PDF file includes:

Supplementary Figures S1 to S6
Legends for Supplementary Videos S1, S2

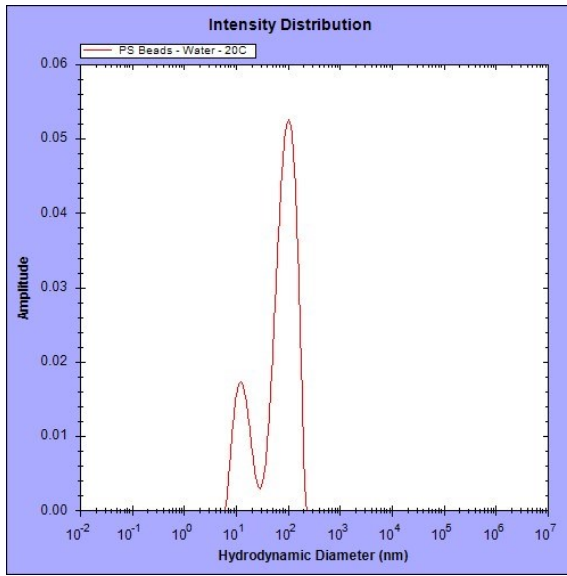
Other supplementary materials for this manuscript include the following:

Supplementary Videos S1, S2

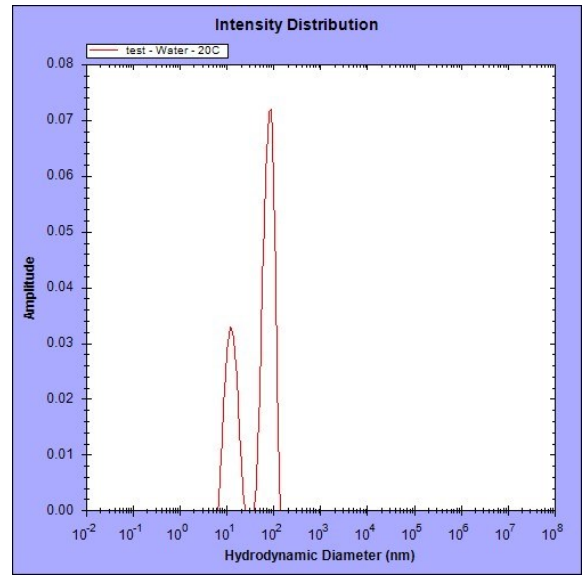


Supplementary Figure 1. ^1H and ^{13}C NMR reveal additional features and sharper resonances for octylamine modified polyacrylic acid that was functionalized with DSS peptide.

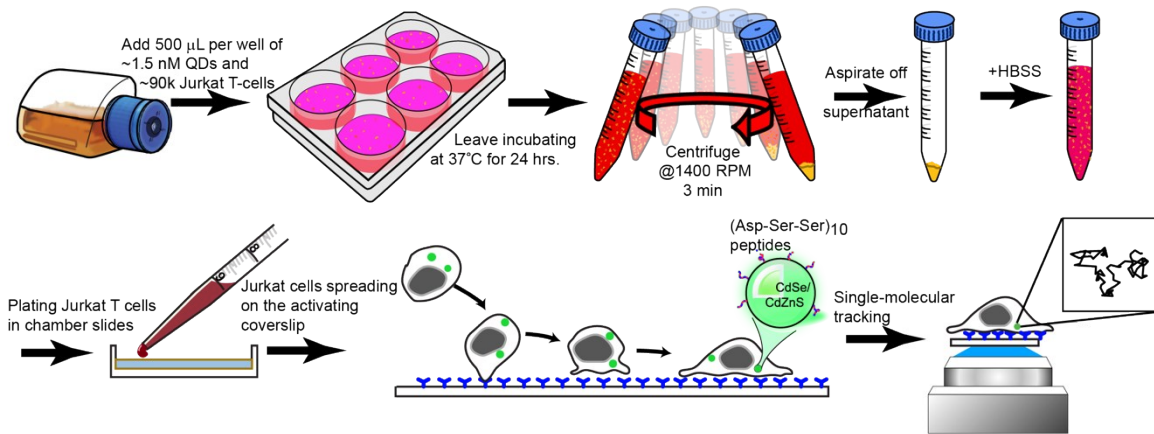
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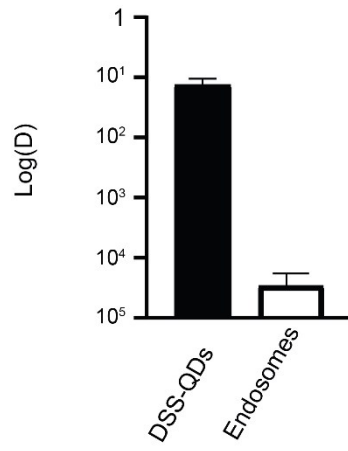
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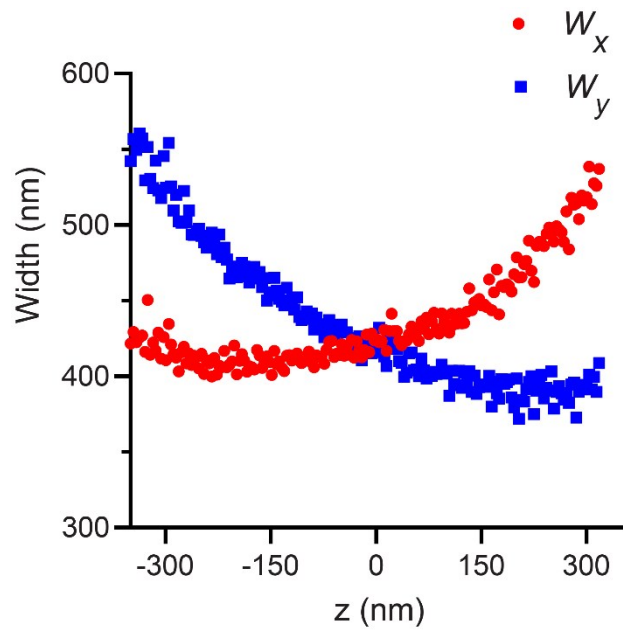
Supplementary Figure 2. Dynamic light scattering (DLS) results of DSS-QDs (a) and Control-QDs (b).



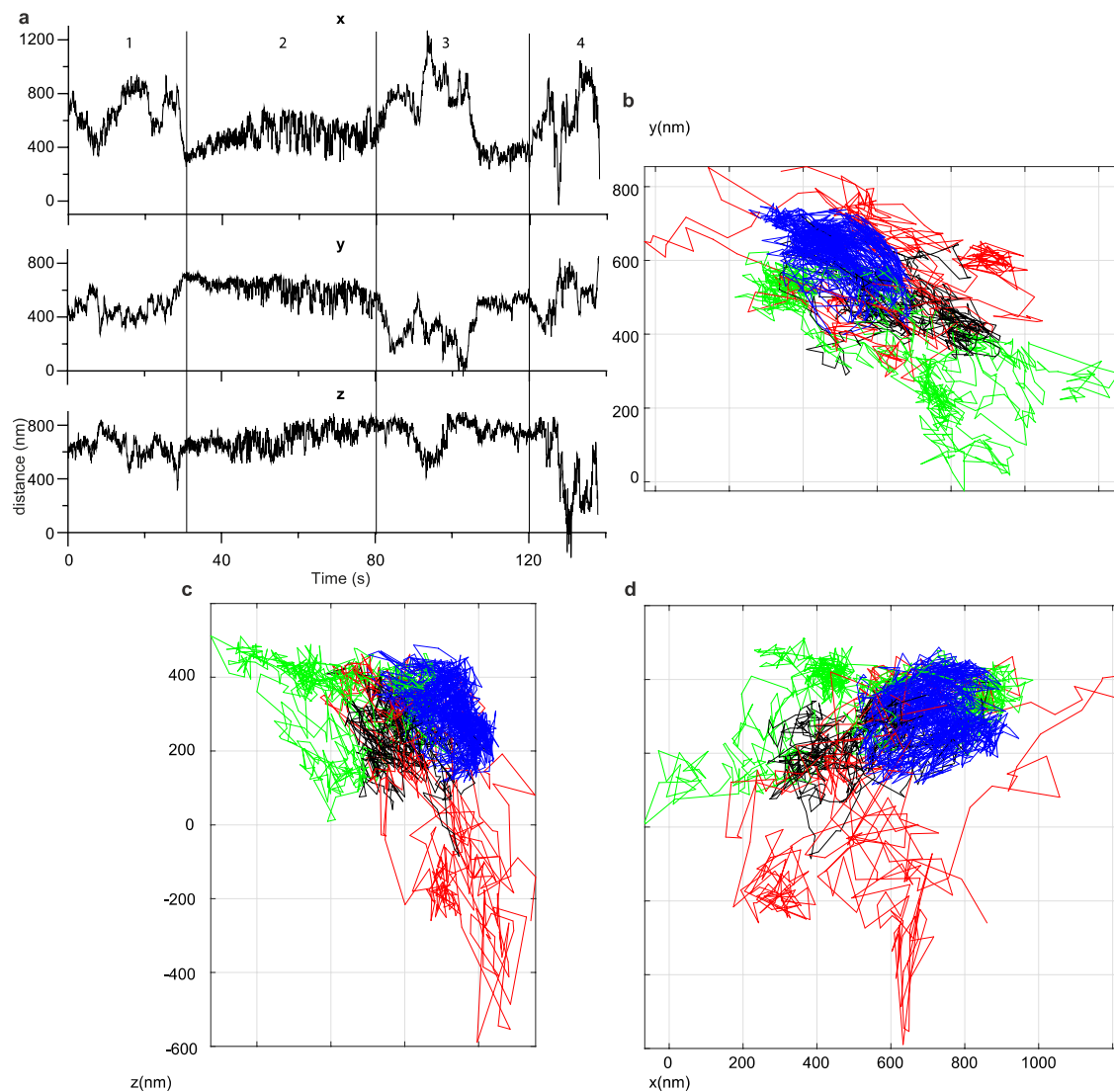
Supplementary Figure 3. Schematic representation of the T cell incubation with QDs, subsequent immobilization, and visualization on the activating surface coated with antibodies.



Supplementary Figure 4 Diffusion coefficient \log_{10} value of the diffusion coefficient D in $\mu\text{m}^2/\text{s}$ for single DSS-QDs and endosomes.



Supplementary Figure 5 Calibration curve of image widths w_x and w_y as a function of z obtained from single TetraSpeck™ microspheres.



Supplementary Figure 6. Single-particle positions for each Cartesian coordinate axis as a function of time. **a.** 3D trajectories of the QD. **b-d.** The xy, yz, xz view of 3-D trajectory; region 1 in black, region 2 in blue, region 3 in green, and region 4 in red from a.

Supplementary Video 1 (separate file). TIRF video of a QD-laden T cell landing and immobilizing on the activating surface, 10x sped up from real time.

Supplementary Video 2 (separate file). 3D single-particle tracking showing DSS-QD internalization into a T cell, 10x sped up from real time.