Electronic Supplementary Material (ESI) for Nanoscale.

Supplemental figures:

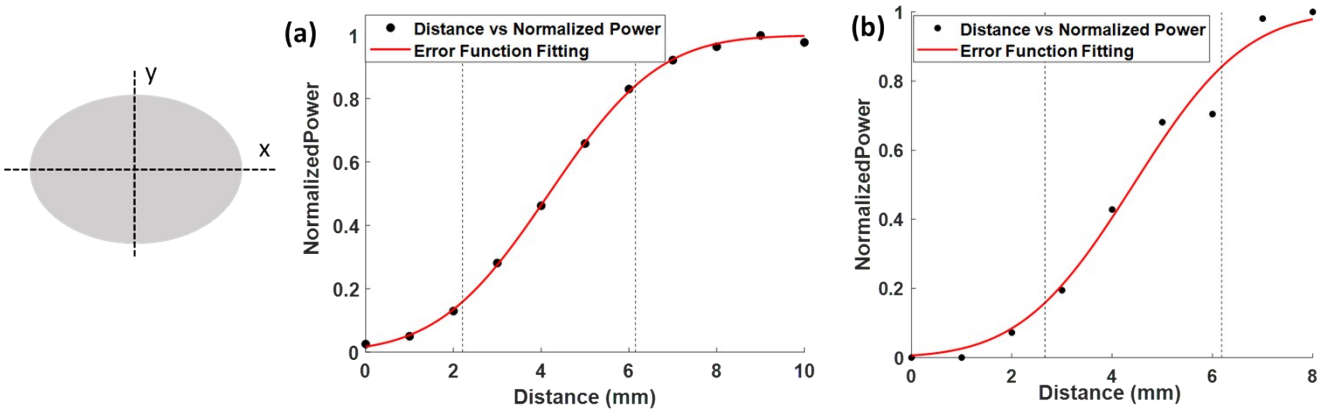

Figure S1 Laser beam profiling with knife-edge method in the x-direction (a) and y-direction (b). Briefly, we moved a knife blade along either x or y direction and recorded the power of the laser beam that was not covered by the knife blade. These recorded values formed the cumulative distribution function of a Gaussian beam and hence were fitted to an error function. The beam waist (full width half maximum) was labeled between the two vertical dashed lines.

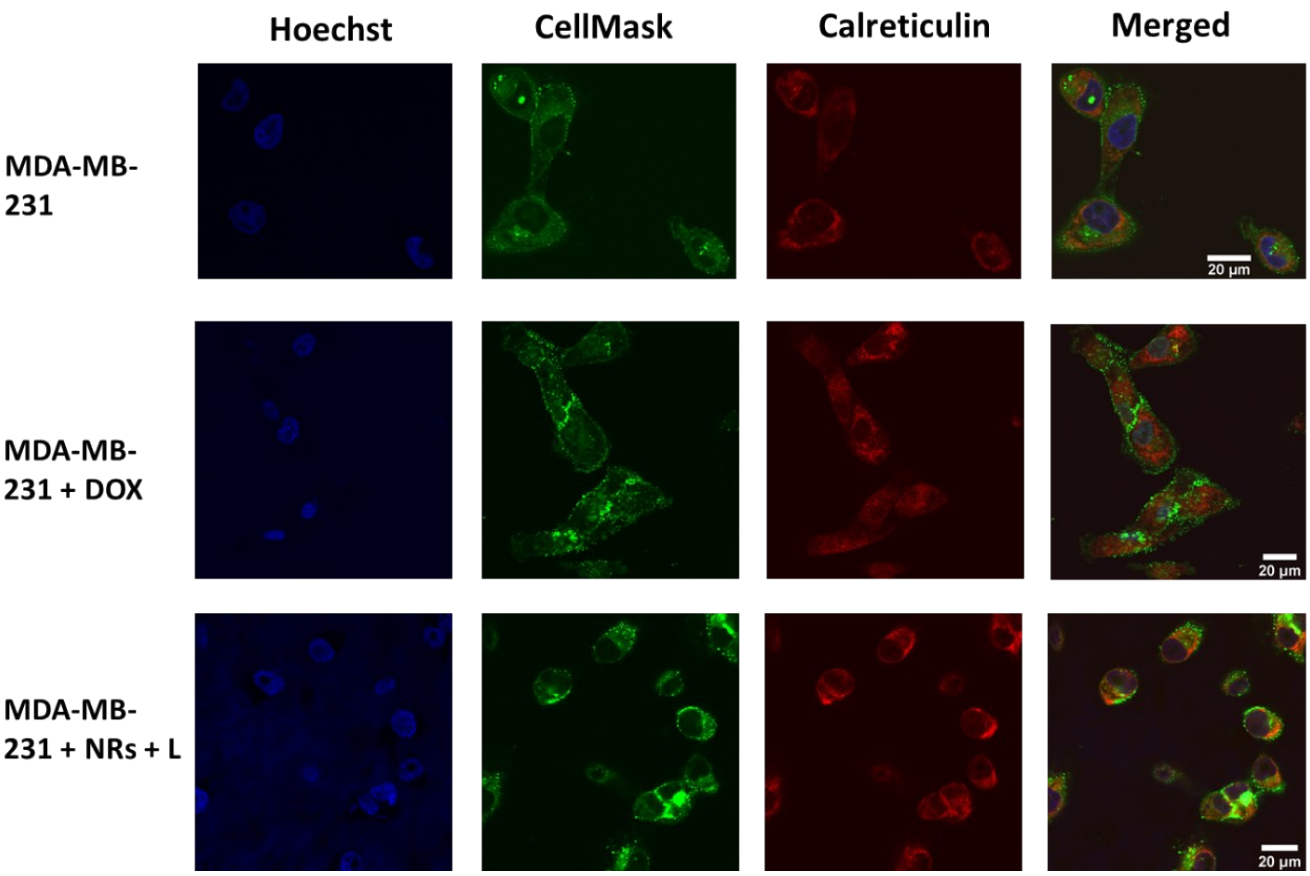

Figure S2 Characterization of calreticulin relocation with confocal imaging. We labeled cell nucleus with Hoechst (blue), cell membrane with Cellmask (green), and calreticulin with AF647 conjugated antibodies (red). We observed calreticulin colocalizing with membrane label after laser irradiation of MDA-MB-231 cells with AuNRs.

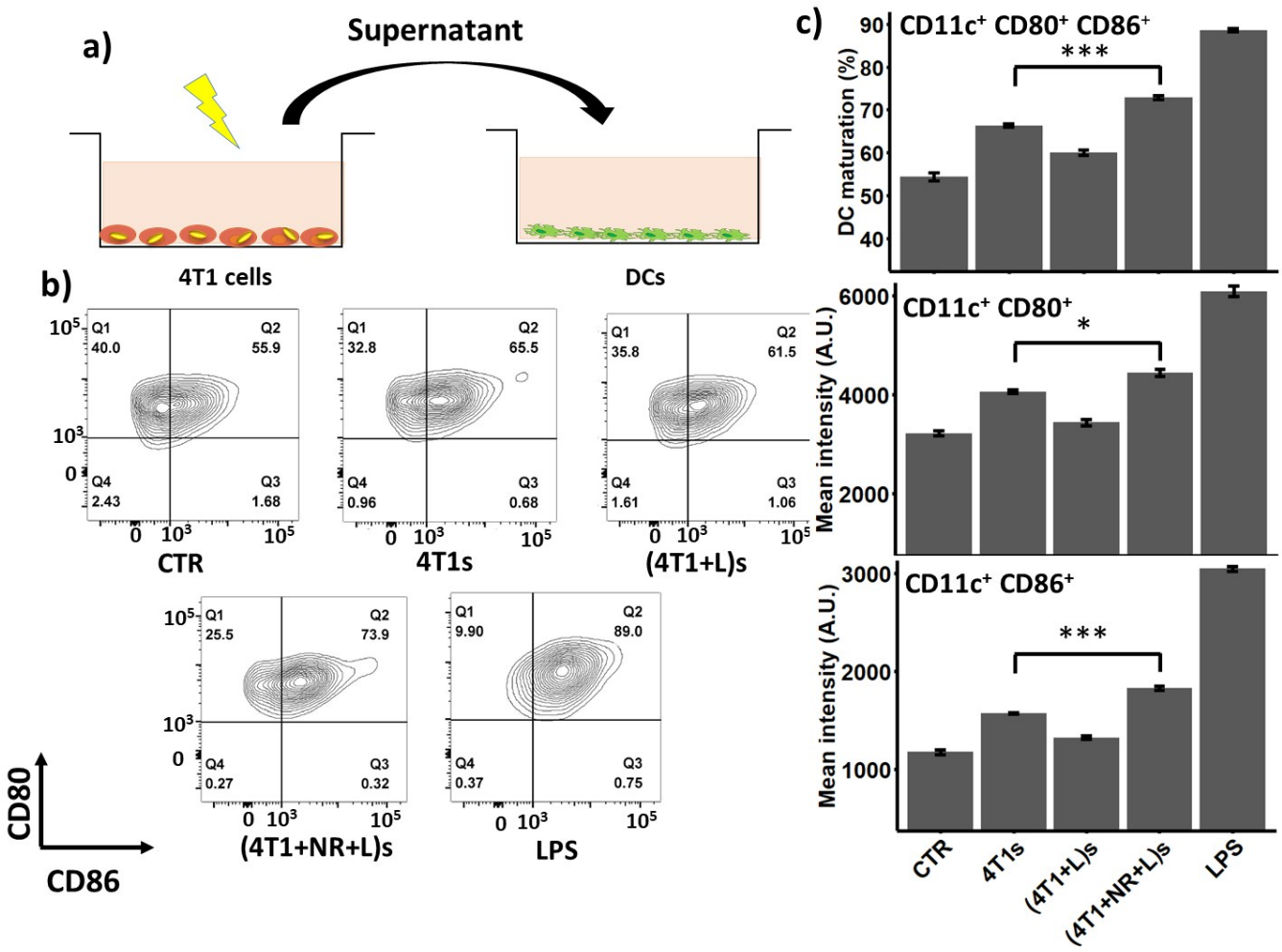

Figure S3 Activation of dendritic cells from irradiation of AuNRs-embedded 4T1 cells a) experimental layout describing 4T1 supernatant addition to dendritic cells (DCs) b) contour plot of DCs expressing CD80 and CD86, c) Percentage of mature dendritic cells as CD11c+ CD80+ and CD86+, and median intensity of DCs that express CD80 and CD86. Five groups of dendritic cells: CTR: DCs without treatment, 4T1s: DCs treated with supernatant from 4T1 cells, (4T1+L)s: DCs treated with supernatant from irradiated 4T1 cells, (4T1+NR+L)s: DCs treated with supernatant from irradiated AuNRs-embedded 4T1 cells, LPS: DCs treated with LPS. Number of samples per group n = 3. * means p-value < 0.05

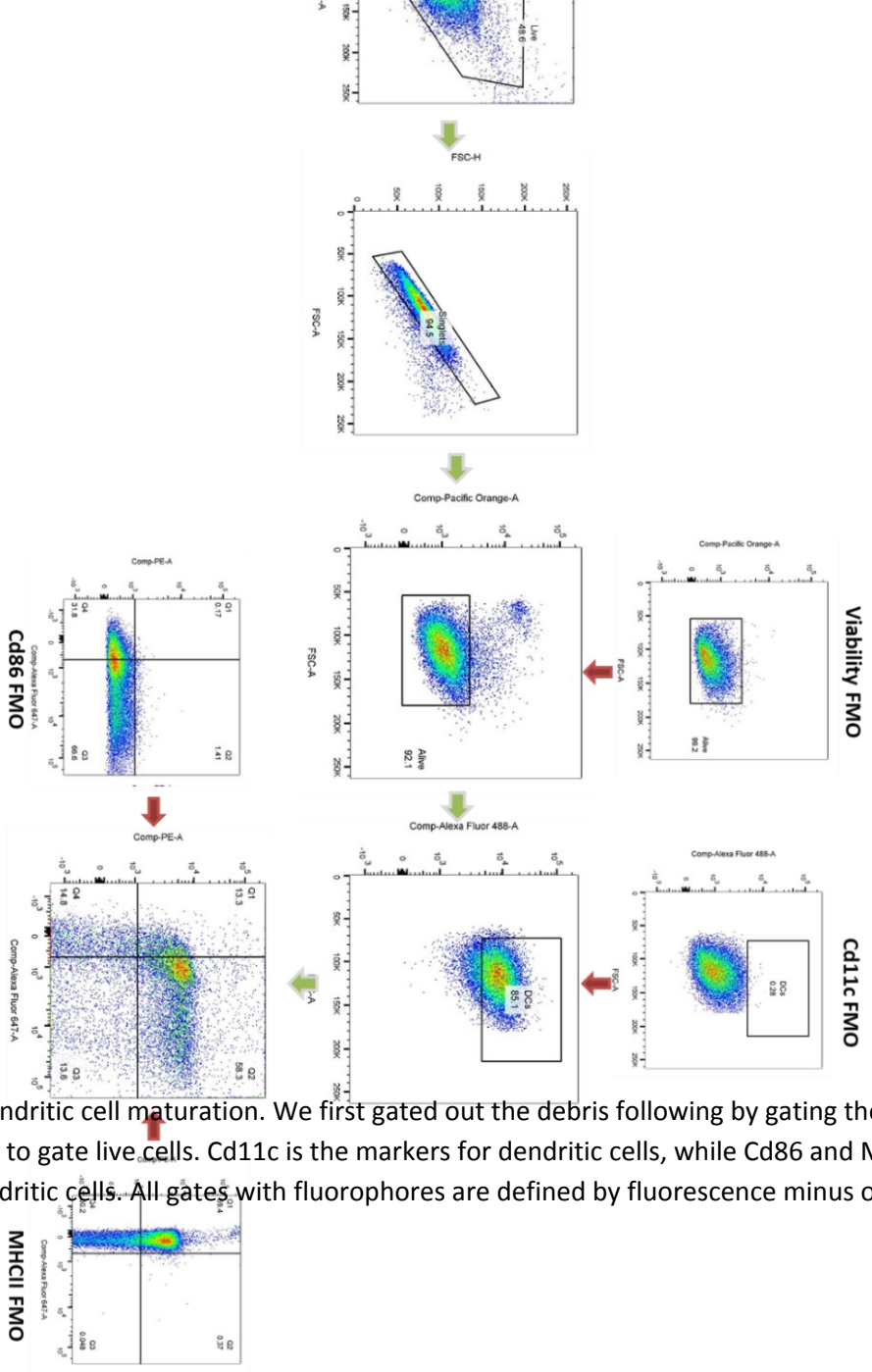

Figure S4 Gating strategy for dendritic cell maturation. We first gated out the debris following by gating the singlets. We used a viability dye to gate live cells. Cd11c is the markers for dendritic cells, while Cd86 and MHCII are the markers for mature dendritic cells. All gates with fluorophores are defined by fluorescence minus one (FMO) samples.