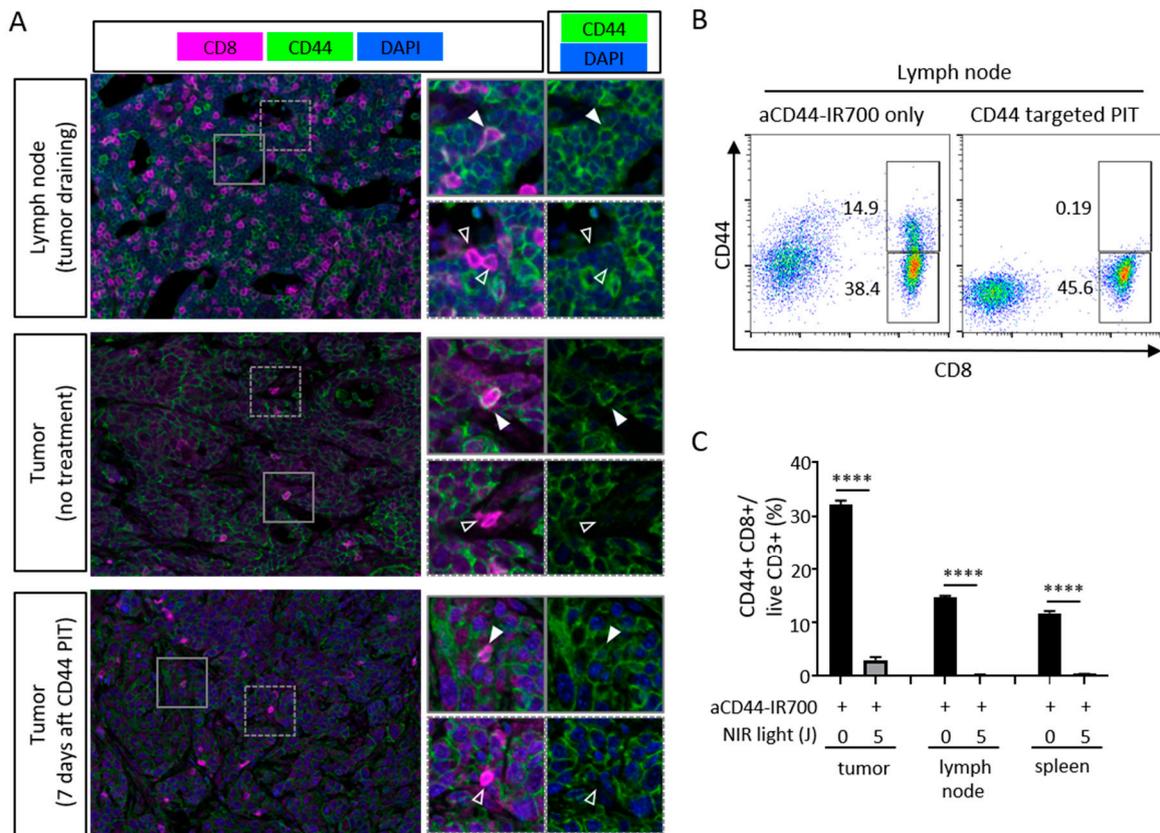


Supplemental Figure S1. Separate channel images from the pictures in Figure 4. A-D. composite images of CD8, CD4, FOXP3, pan-Cytokeratin and DAPI staining. E-H. composite images of CD4 and FOXP3 staining. I-L. Single channel images of CD8 staining.



Supplemental Figure S2. CD44 expression in CD8 T cells before and after treatment. A. CD44 expression in CD8 T cells was analyzed with multiplex IHC in tumor draining lymph nodes, MOC1

tumors with no treatment and tumors 7 days after CD44-targeted NIR-PIT. CD8 and CD44 expression are shown in magenta and green respectively. DAPI is shown in blue. Examples of CD44⁺ CD8⁺ T cells and CD44⁻ CD8⁺ T cells are shown in squares in solid line and broken line respectively. Enlarged pictures are shown in the right panels. Examples of CD44⁺ CD8⁺ T cells and CD44⁻ CD8⁺ T cells are indicated with filled arrowhead and open arrowhead respectively. B, C. FACS analysis after ex-vivo CD44-targeted NIR-PIT. A tumor, a draining lymph node and a spleen are collected from a MC38-luc tumor bearing mouse and subjected to CD44-targeted NIR-PIT. B. Representative dot plot of CD44 and CD8 expression in live/CD3⁺ gate of lymph node samples. Note that CD44⁺/CD8⁺ population disappeared after CD44-targeted NIR-PIT. C. Percentages of CD44⁺CD8⁺ T cells in live CD3⁺ gate shown as mean \pm SEM (n = 5; ***, $p < 0.001$; vs. NIR light 0J for each tissue).