Supplementary Information

Identification of non-activated lymphocytes using three-dimensional refractive index tomography and machine learning

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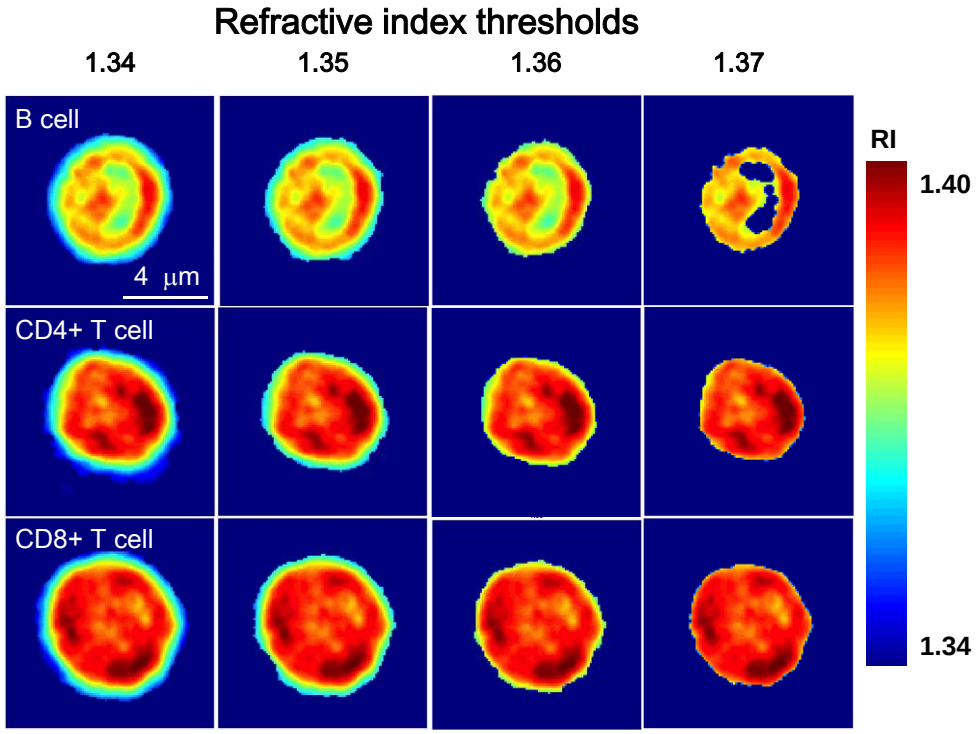
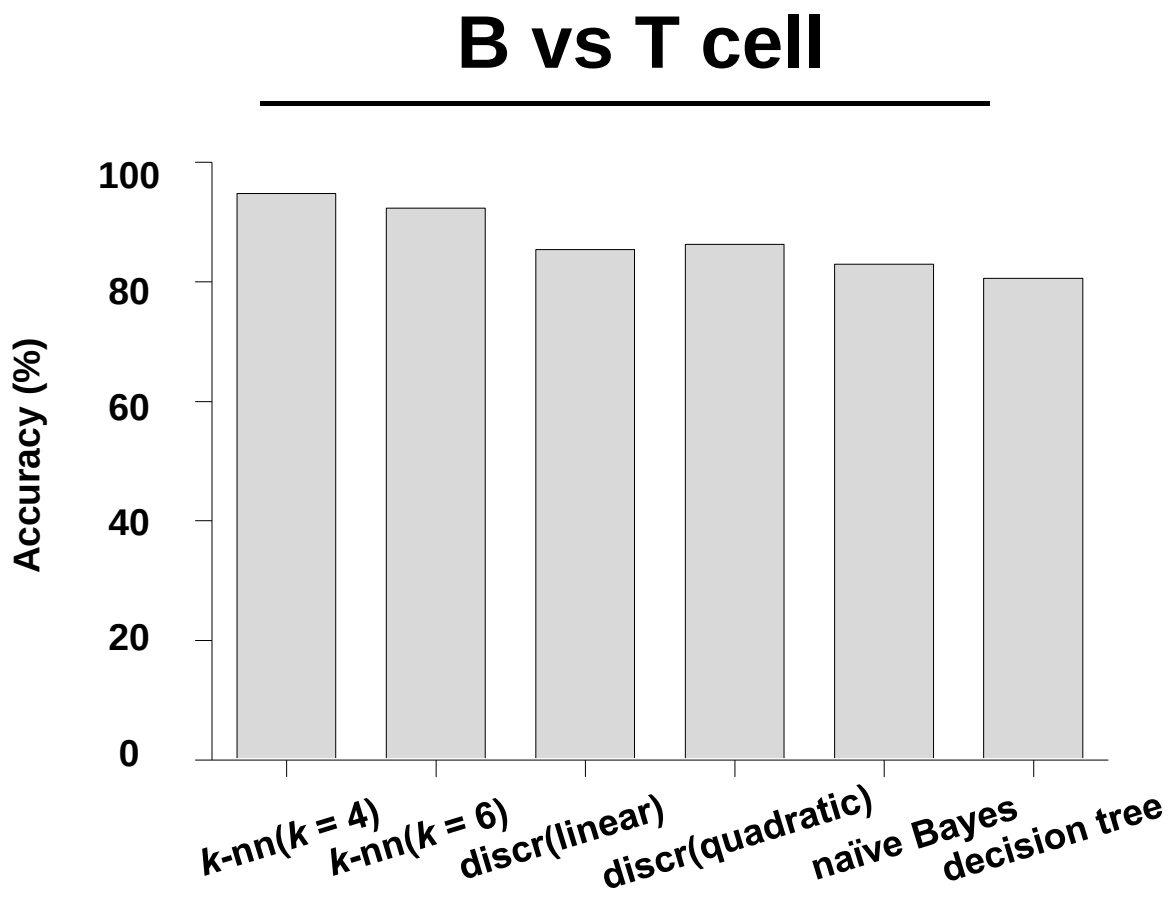
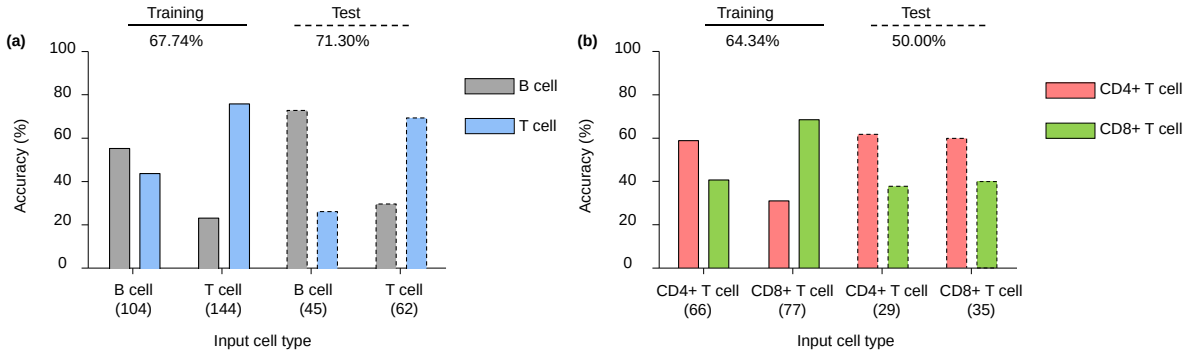


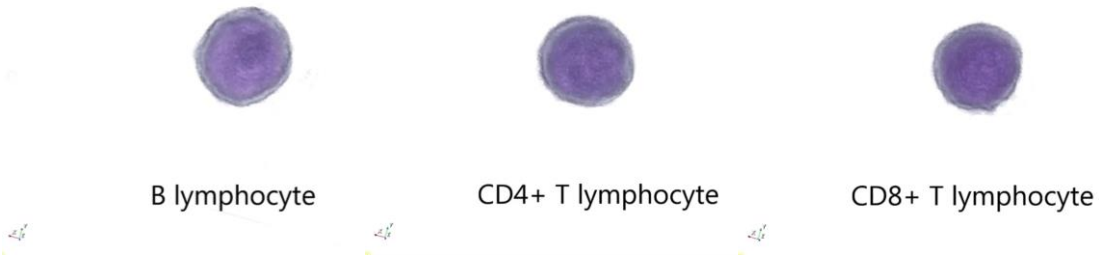
Supplementary Figure 1. Representative x-y slices of 3-D RI tomograms of the three lymphocyte cell types. Each slice shows RI distribution which is higher than RI threshold. Note that lower threshold RI values present the overall morphology, while higher threshold RI values tend to reveal information on the intracellular components. Scale bar, 4 μm.



Supplementary Figure 2. Comparison of several statistical classification models (*k*-NN (*k* = 4 and *k* = 6), linear discrimination analysis, quadratic discrimination analysis, naïve Bayes, and decision tree).



Supplementary Figure 3. Identification performance of the optimized lymphocyte cell type classifiers using morphological features (surface area, cellular volume, and sphericity) only. (a) Binary classification of B and T cells. (b) Binary classification of CD4+ and CD8+ T cells. The numbers below the cell types indicate the number of cells used.



Supplementary Video 1-3. 3-D rendered lymphocyte tomograms (B cell, CD4+ T cell, and CD8+ T cell)