



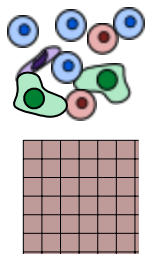


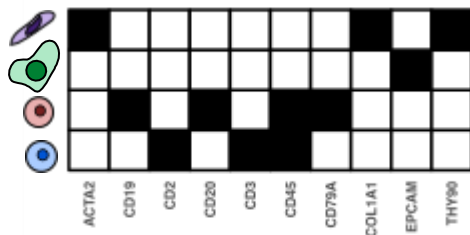
## Prior knowledge of marker genes

-  T cell: CD2, CD3, CD45
-  B cell: CD19, CD20, CD79A, CD45
-  Tumor cell (epithelial): EPCAM
-  Fibroblast: COL1A1, ACTA2, THY90

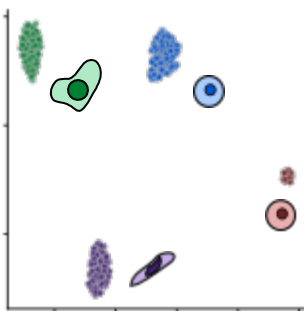
## Count matrix for heterogeneous data



## Binarization



**CellAssign:** automated probabilistic assignment of cells to known cell types



Cell type assignments



Probabilities