Identificatie immuun cellen

B cells:

The CD79a protein is present on the surface of B-cells throughout their life cycle, and is absent on all other healthy cells, making it a highly reliable marker for B-cells in immunohistochemistry.

Mass Cytometry of the Human Mucosal Immune System Identifies Tissue- and Disease-Associated Immune Subsets:
The t-SNE analysis -> unanticipated distributions were revealed, like largely mutually exclusive marker expression patterns (i.e., CD27 and CD161)
Kernel density-peak detection algorithm on the t-SNE map (ACCENSE) -> which automatically identified 28 CD4+ T cells subsets

CD Markers

Type of cell	CD markers
stem cells	CD34+, CD31-, CD117
all leukocyte groups	CD45+
Granulocyte	CD45+, CD11b, CD15+, CD24+, CD114+, CD182+[16]
Monocyte	CD4, CD45+, CD14+, CD114+, CD11a, CD11b, CD91+,[16] CD16+[17]
T lymphocyte	CD45+, CD3+
T helper cell	CD45+, CD3+, CD4+
T regulatory cell	CD4, CD25, and Foxp3
Cytotoxic T cell	CD45+, CD3+, CD8+
B lymphocyte	CD45+, CD19+, CD20+, CD24+, CD38, CD22
Thrombocyte	CD45+, CD61+
Natural killer cell	CD16+, CD56+, CD3-, CD31, CD30, CD38

https://en.wikipedia.org/wiki/Cluster_of_differentiation

Human

Cell type	Markers	References
HSC	CD34+, CD38-, CD45RA-, CD49+,CD90/Thy1+	1, 2, 3, 4, 5, 6
MPP	CD34+, CD38-, CD45RA-,CD90/Thy1-	3, 7, 8, 6, 9
CLP	CD34+, CD38+, CD10+, CD45RA+	10, 3
CMP	CD34+, CD38+, CD7-, CD10-,CD45RA-, CD90/Thy1-, CD135+	9, 7, 11, 12
MEP	CD34+, CD38+, CD7-, CD10-,CD45RA-, CD135-, IL3Rα-	7, 13, 14, 11, 12
GMP	CD34+, CD38+, CD10-, CD45RA+,CD123+, CD135+	7, 14, 15, 11, 12
NK Cell*	CD3-, CD56+, CD94+, NKp46+	16, 17, 18, 19, 20

T Cell*	CD3+	21, 22, 20
B Cell*	CD19+	23, 24, 25, 20, 26
Monocyte*	CD14+	14, 27, 26
Macrophage*	CD11b+, CD68+, CD163+	28, 29
Dendritic Cell*	CD11c+, HLA-DR+	30, 14
Neutrophil	CD11b+, CD16+, CD18+, CD32+,CD44+, CD55+	31, 32, 33, 20, 26
Eosinophil	CD45+, CD125+, CD193+, F4/80+,Siglec-8+	14, 34, 35, 36, 20
Basophil	CD19-, CD22+, CD45low, CD123+	14, 37, 38, 20
Mast Cell	CD32+, CD33+, CD117+,CD203c+, FcεRI+	39, 40, 41
Erythrocyte	CD235a+	42, 26
Megakaryocyte	CD41b+, CD42a+, CD42b+,CD61+	14, 13, 43
Platelet	CD41+, CD42a+, CD42b+, CD61+	20, 44

Cluster ID	Markers	Cell Type
0	IL7R	CD4 T cells
1	CD14, LYZ	CD14+ Monocytes
2	MS4A1	B cells
3	CD8A	CD8 T cells
4	FCGR3A, MS4A7	FCGR3A+ Monocytes
5	GNLY, NKG7	NK cells
6	FCER1A, CST3	Dendritic Cells
7	PPBP	Megakaryocytes