

**Table S1. Classification of T cell, DC and ILC clusters based on potential function. The predictions of the phenotypes are based on extensive literature searches.**

**T cell clustering Phenotypes**

Cluster	Phenotype	Presumed Name
1	CD196-CD161-CD127-CD4-CCR4-CD25-HLADR-CD183-CD45RO-CD8+CD27-CD197-CD62L-CD45RA+	CD8 Effector T Cell
2	CD196+CD161+CD127-CD4-CCR4+CD25+HLADR+CD183-CD45RO+CD8-CD27-CD197-CD62L-CD45RA-	Activated T Cell
3	CD196+CD161+CD127+CD4+CCR4-CD25+HLADR+CD183+CD45RO+CD8-CD27-CD197-CD62L-CD45RA-	Effector Memory T Regulatory
4	CD196-CD161-CD127-CD4-CCR4-CD25-HLADR+CD183+CD45RO+CD8+CD197-CD62L-CD45RA-	HLADR+ CD183+ CD8 T Effector Memory Cell
5	CD196-CD161+CD127+CD4-CCR4-HLADR-CD183+CD45RO-CD8+CD27+CD197-CD62L-CD45RA+	CD8 Effector Cell
6	CD196+CD161+CD127+CD4+CCR4+CD25+HLADR-CD183+CD45RO+CD8-CD27+CD197-CD62L+CD45RA-	Central Memory T Cell or Effector Memory T Regulatory
7	CD196-CD161-CD127-CD4+CCR4-CD25-HLADR-CD183-CD45RO-CD8-CD27+CD197+CD62L-CD45RA+	Naïve T Cell without CD127+
8	CD196-CD161-CD127+CD4+CCR4+CD25-HLADR-CD183-CD45RO-CD8-CD27+CD197+CD62L+CD45RA+	CD62L+ Naïve T Cell

**Table S1 (contd). Classification of T cell, DC and ILC clusters based on potential function. The predictions of the phenotypes are based on extensive literature searches.**

### DC clustering Phenotypes

Cluster	Phenotype	Presumed Name
1	CD123+CD8-CD80-CD11b-CD11c-CD1c-CD33-	CD8alpha-negative, CD11b-negative dendritic cell
2	CD123+CD8-CD80-CD11b-CD11c-CD1c-CD33-	CD8alpha-negative, CD11b-negative dendritic cell
3	CD123+CD8-CD80-CD11b-CD11c-CD1c-CD33-	CD8alpha-negative, CD11b-negative dendritic cell
4	CD123+CD8-CD80+CD11b-CD11c-CD1c-CD33-	immature CD11c-negative plasmacytoid dendritic cell
5	CD123+CD8-CD80+CD11b-CD11c-CD1c-CD33-	immature CD11c-negative plasmacytoid dendritic cell
6	CD123-CD8-CD80+CD141+CD11b-CD11c+CD209+CD33-	CD141-positive myeloid dendritic cell
7	CD123-CD8-CD80+CD141-CD11b-CD11c-CD209-CD33-	Mature dendritic cell
8	CD123-CD8-CD80-CD141-CD11b-CD11c-CD209-CD33-	Unknown
9	CD123-CD8-CD80-CD141-CD11b-CD11c-CD209+CD33-	Immature monocyte-derived dendritic cell
10	CD123-CD8-CD80-CD141-CD11b+CD11c+CD209+CD33+	CD11b-positive dendritic cell
11	CD123-CD8-CD80+CD141-CD11b-CD11c-CD209-CD33-	Mature dendritic cell
12	CD123-CD8-CD80-CD141-CD11b-CD11c-CD209-CD33-	Unknown
13	CD123-CD8-CD80-CD141-CD11b-CD11c+CD209+CD33+	CD1c-positive myeloid dendritic cell
14	CD123-CD8-CD80-CD141-CD11b+CD11c+CD209+CD33+	CD11b-positive dendritic cell
15	CD123-CD8-CD80+CD141-CD11b-CD11c-CD209-CD33-	Mature dendritic cell
16	CD123-CD8-CD80+CD141-CD11b-CD11c+CD209-CD33+	CD11b-positive dendritic cell
17	CD123-CD8+CD80+CD141-CD11b-CD11c-CD209-CD33-	Unknown

**Table S1 (contd). Classification of T cell, DC and ILC clusters based on potential function. The predictions of the phenotypes are based on extensive literature searches.**

### ILC clustering Phenotypes

Cluster	Phenotype	Presumed Name
1	CD16-Tbet-CD127+CD56+CD94+NKp46+Eomes+CD49a+CD117-	Tissue-resident like Natural Killer Cells
2	CD16-Tbet-CD127-CD56+CD94+NKp46+Eomes+CD49a+CD117-	Tissue-resident like Natural Killer Cells
3	CD16-Tbet-CD56-CD94+NKp46+Eomes-CD49a+RORyt-CD117-	Tissue-resident like Natural Killer Cells
4	CD16-Tbet+CD127+CD56+CD94+NKp46+Eomes+CD49a-RORyt-CD117+	CD16-negative, CD56-bright natural killer cell
5	CD16-Tbet+CD127-CD56+CD94+NKp46+Eomes+CD49a-RORyt+CD117-	ILC3-like
6	CD16-Tbet-CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4+CD117-	ILC1-like
7	CD16-Tbet-CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4+RORyt+CD117+	Lti-like
8	CD16-Tbet-CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4+RORyt-CD117+	ILC1-like
9	CD16+Tbet+CD127-CD56+CD94-NKp46+Eomes+CD49a-CXCR4-RORyt-CD117-	cNKs
10	CD16-Tbet-CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4+RORyt+CD117+	ILC3-like
11	CD16+Tbet+CD127+CD56+CD94-NKp46-Eomes+CD49a-CXCR4-RORyt-CD117-	cNKs
12	CD16-Tbet+CD127-CD56+CD94-NKp46-Eomes-CD49a-CXCR4-RORyt-CD117-	CD16-negative, CD56-bright natural killer cell
13	CD16-Tbet-CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4+RORyt-CD117+	Unknown
14	CD16+Tbet+CD127-CD56+CD94-NKp46-Eomes-CD49a-CXCR4-RORyt-CD117-	cNKs
15	CD16-Tbet+CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4-RORyt-CD117-	Unknown
16	CD16+Tbet-CD127-CD56-CD94-NKp46-Eomes-CD49a-CXCR4-RORyt-CD117+	Unknown
17	CD16+Tbet+CD127+CD56+CD94-NKp46-Eomes-CD49a-CXCR4-RORyt-CD117-	cNKs