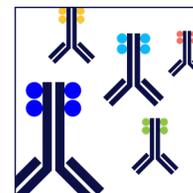


Cell Classification and Phenotyping



CELL TYPE	PHENOTYPE
Tumor cells	Keratin+ or SOX10+
Proliferating tumor cells	Keratin+Ki-67+ or SOX10+Ki-67+
Immune cells	CD45+ or positive for at least one immune lineage markers
Proliferating immune cells	CD45+Ki-67+
T cells	CD45+CD3+ or CD45+FoxP3+
Helper T lymphocytes	CD45+CD3+CD4+FoxP3-
Naive helper T cells	CD45+CD3+CD4+CD45RO-
Memory helper T cells	CD45+CD3+CD4+CD45RO+
Activated helper T lymphocytes	CD45+CD3+CD4+Ki-67+ or Granzyme B+
Cytotoxic T lymphocytes	CD45+CD3+CD4+CD8+
Naive cytotoxic T cells	CD45+CD3+CD4+CD8+CD45RO-
Memory cytotoxic T cells	CD45+CD3+CD4+CD8+CD45RO+
Activated cytotoxic T lymphocytes	CD45+CD3+CD4+CD8+Ki-67+ or Granzyme B+
Regulatory T cells	CD45+CD3+CD4+FoxP3+
NK cells	CD45+CD3-CD56+
Activated NK cells	CD45+CD3-CD56+Granzyme B+
NKT cells	CD45+CD3+CD56+
Activated NKT cells	CD45+CD3+CD56+Granzyme B+
B cells	CD45+CD20+
Myeloid cells	positive for at least one of the myeloid lineage markers
Macrophages	CD68+ and CD68:CD11c intensity ratio ≥ 1
M1 macrophages	CD68+ and CD68:CD11c intensity ratio ≥ 1 CD163-
M2 macrophages	CD68+ and CD68:CD11c intensity ratio ≥ 1 CD163+
Monocytes	CD14+CD68-CD11c-
M1 monocytes	CD14+CD68-CD11c-CD163-
M2 monocytes	CD14+CD68-CD11c-CD163+
Dendritic cells	CD11c+HLA DPDQDR+ and CD68:CD11c intensity ratio < 1
Conventional dendritic cells	CD11c+HLA DPDQDR+ and CD68:CD11c intensity ratio < 1 CD14-
Monocyte-derived dendritic cells	CD11c+HLA DPDQDR+ and CD68:CD11c intensity ratio < 1 CD14+

REGION	PHENOTYPE
Tumor	Keratin+
Stroma	Vimentin+ or SMA+Keratin-
Fibroblasts	Vimentin+SMA-Keratin-CD31-
Myofibroblasts/Smooth Muscle	Vimentin+SMA+CD31-
Lymphatics	Podoplanin+Keratin-
Blood vessels	CD31+Podoplanin-