

**Supplemental Table 3.** Cyclic immunofluorescence (CyCIF) gating strategy. Combinations of markers related to specific cell types were used to assign individual cells to a particular cell type.

CELL TYPE	GATING
<b>Tumor</b>	<b>CD31-, any cytokeratin+</b>
Luminal tumor	CK19, CK7 or CK8 +
Basal Tumor	CK5 or CK14 +
Mesenchymal Tumor	Vimentin+, cytokeratin +
<b>Immune</b>	<b>CD31- and cytokeratin-; CD45, CD68, CD3 or CD4+</b>
Macrophage	CD68+, CD31-, cytokeratin- (+/- GRNZB and PD1)
B cell	CD20+, CD45+, CD68-, CD31-, cytokeratin-
CD8 T cell	CD8+, CD45 or CD3+, CD20-, CD68-, CD31-, cytokeratin- (+/- GRNZB, PD1 and FoxP3)
CD4 T cell	CD4+, CD8-, CD20-, CD68-, CD31-, cytokeratin- (+/- GRNZB, PD1 and FoxP3)
<b>Endothelial</b>	<b>CD31+</b>
<b>Stromal</b>	<b>CD31-, cytokeratin-, CD45-, CD3-, CD4-, CD68-</b>
Stromal cell types	Defined above, (+/- αSMA, Vimentin, Podoplanin)
Proliferation	Ki67+