Supplementary Figure S1. Schematic summary of methods for tumor-infiltrating immune cells quantification (a) Whole-slide-based computational analysis of CD3+ and CD8+ tumor-infiltrating lymphocytes (TILs) densities in invasive margin (IM) and center of tumor (CT) areas. (b) Tissue microarray (TMA)-based computational analysis of densities of FoxP3+ TILs, CD68+ and CD163+ tumor-infiltrating macrophages, and CD177+ tumor-infiltrating neutrophils in IM and CT areas. In total, four cores (two IM and two CT cores) per case were evaluated.

a Annotate region of interest (ROI) Segment ROI into 1 mm² tiles and mark the invasive margin Compute the average TIL density at the central tumor at the invasive margin Identification of tumor-infiltrating lymphocytes (TIL) b Central tumor (CT) Invasive margin (IM) **Construction of TMAs** (2 IM and 2 CT) CT2 IM1 IM2 CT1 **Density** Χ Y (# positive cells/ Α В area of TMA core) IM CT (A+B)/2(X+Y)/2**Average**