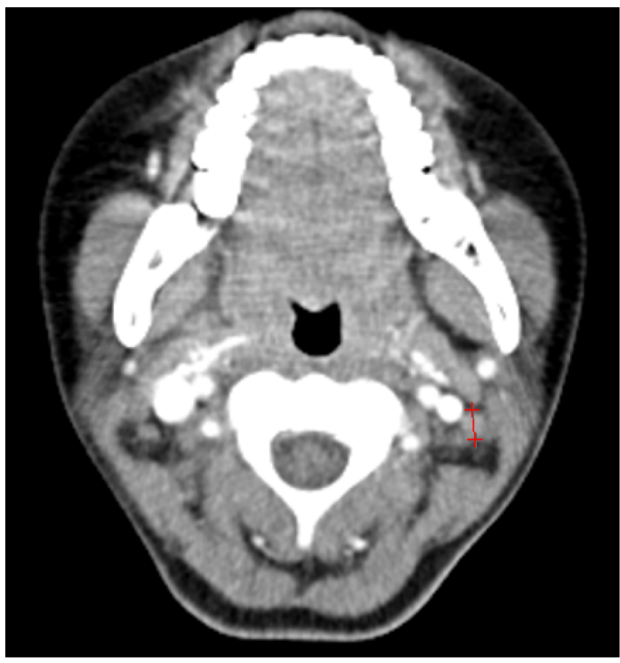


Figure S1. CT scans of lymph node indicate lymphadenopathy is absent. (A) Red marks left inguinal lymph node (B) Red marks left upper cervical lymph node

A



B



Figure S2. UMAP projections of each sequenced sample.

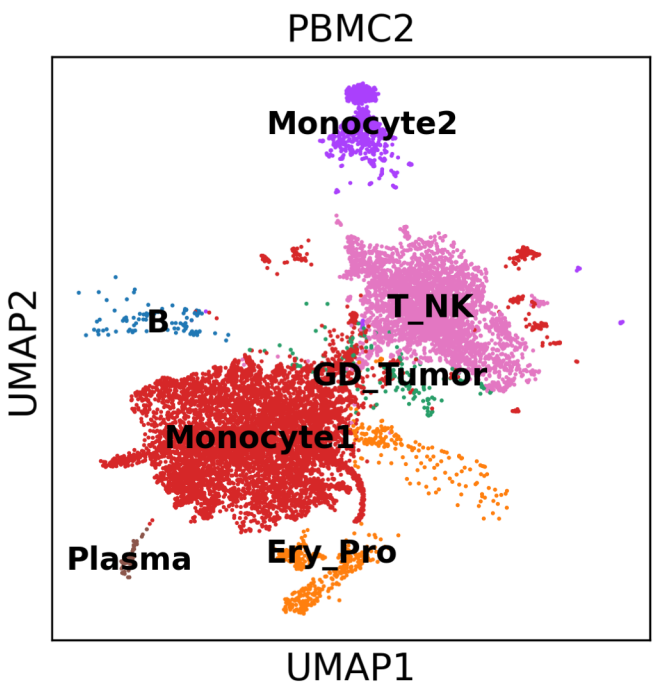
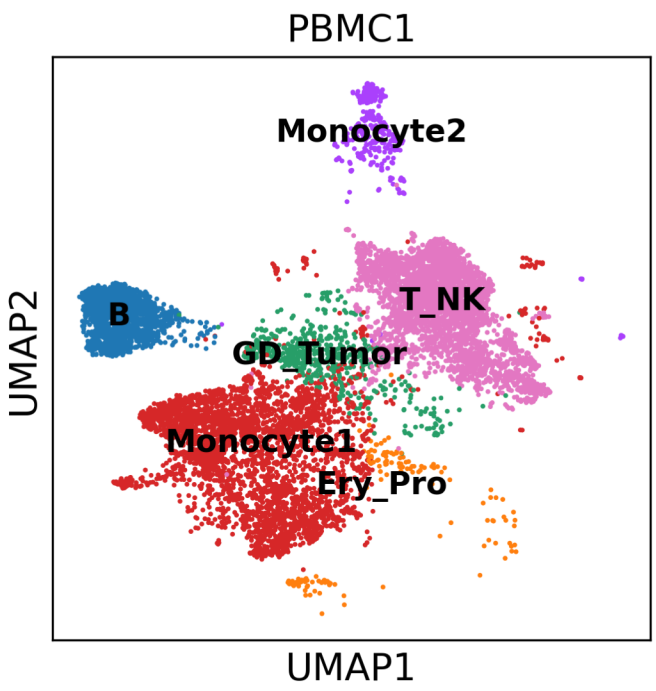
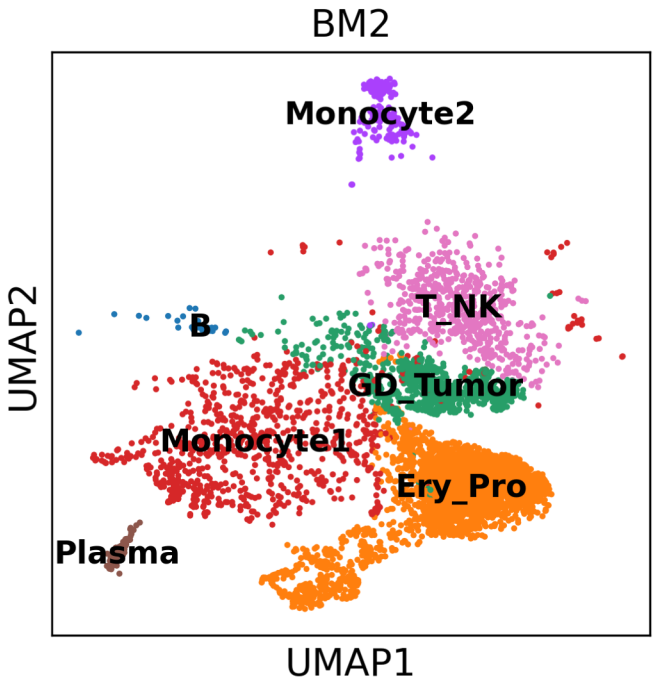
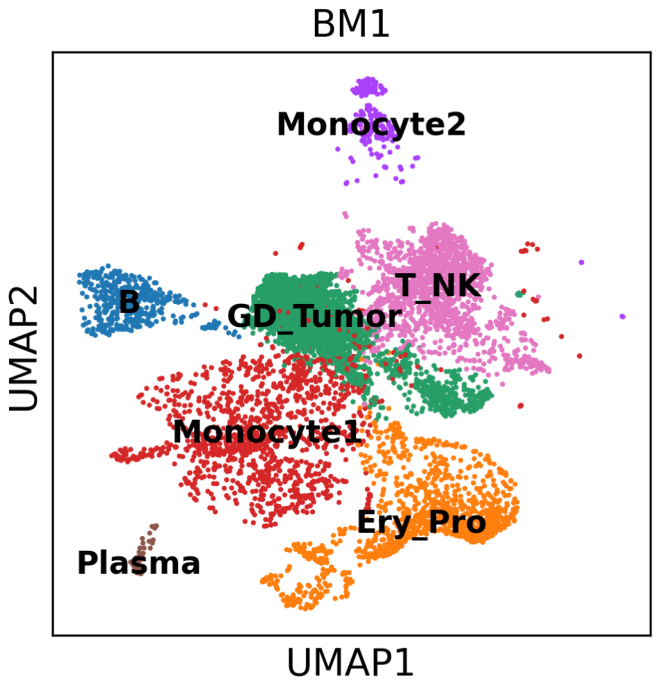


Figure S3. Expression of common markers used for HSTCL diagnosis

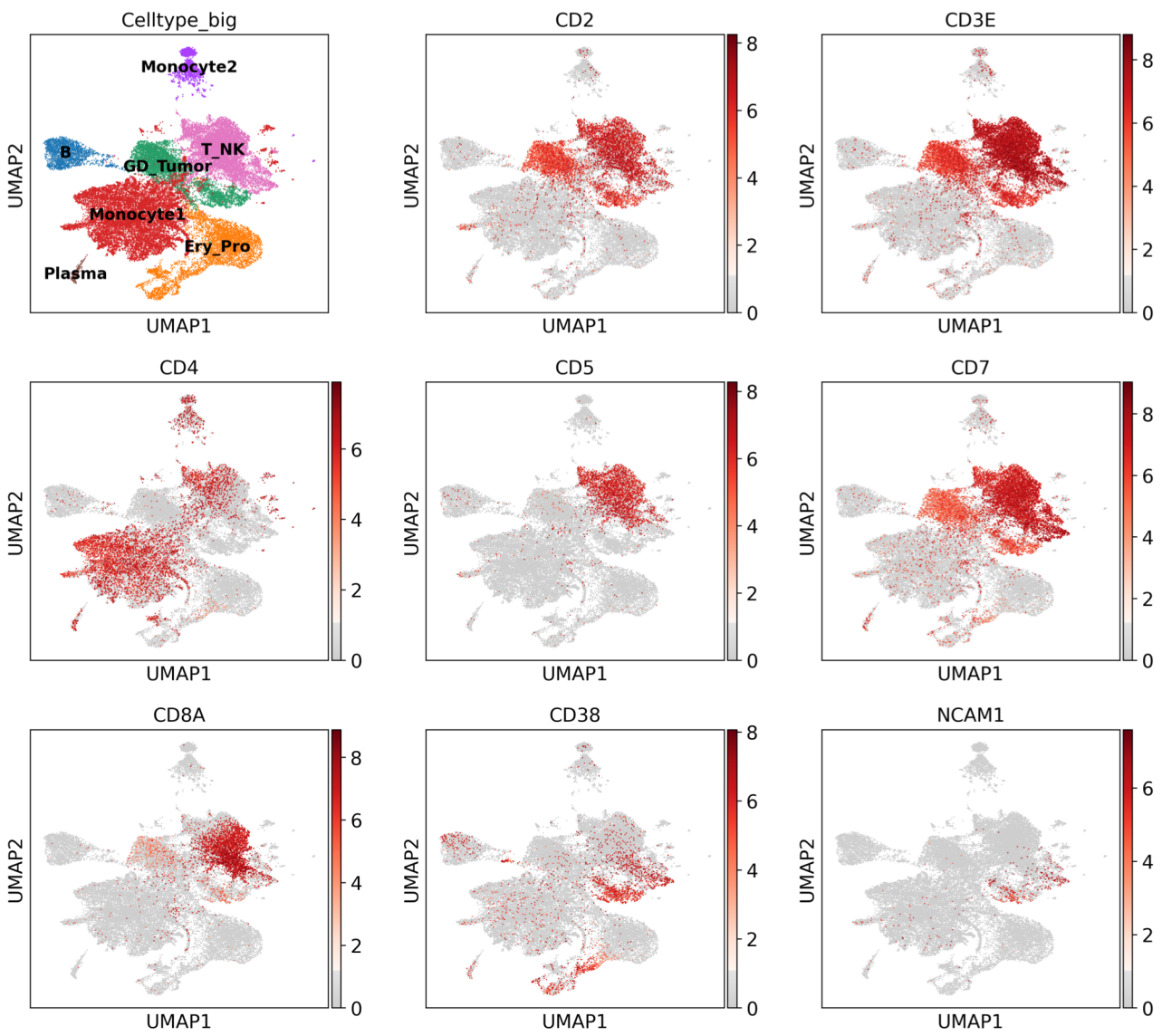


Figure S4. Sub-clusters identified in Ery_Pro. (A) UMAP of sub-clusters in Ery_Pro. Gran: Granulocyte progenitors, Multi_Pro: multipotent progenitors (B) The expression of marker genes for to the sub-clusters annotation

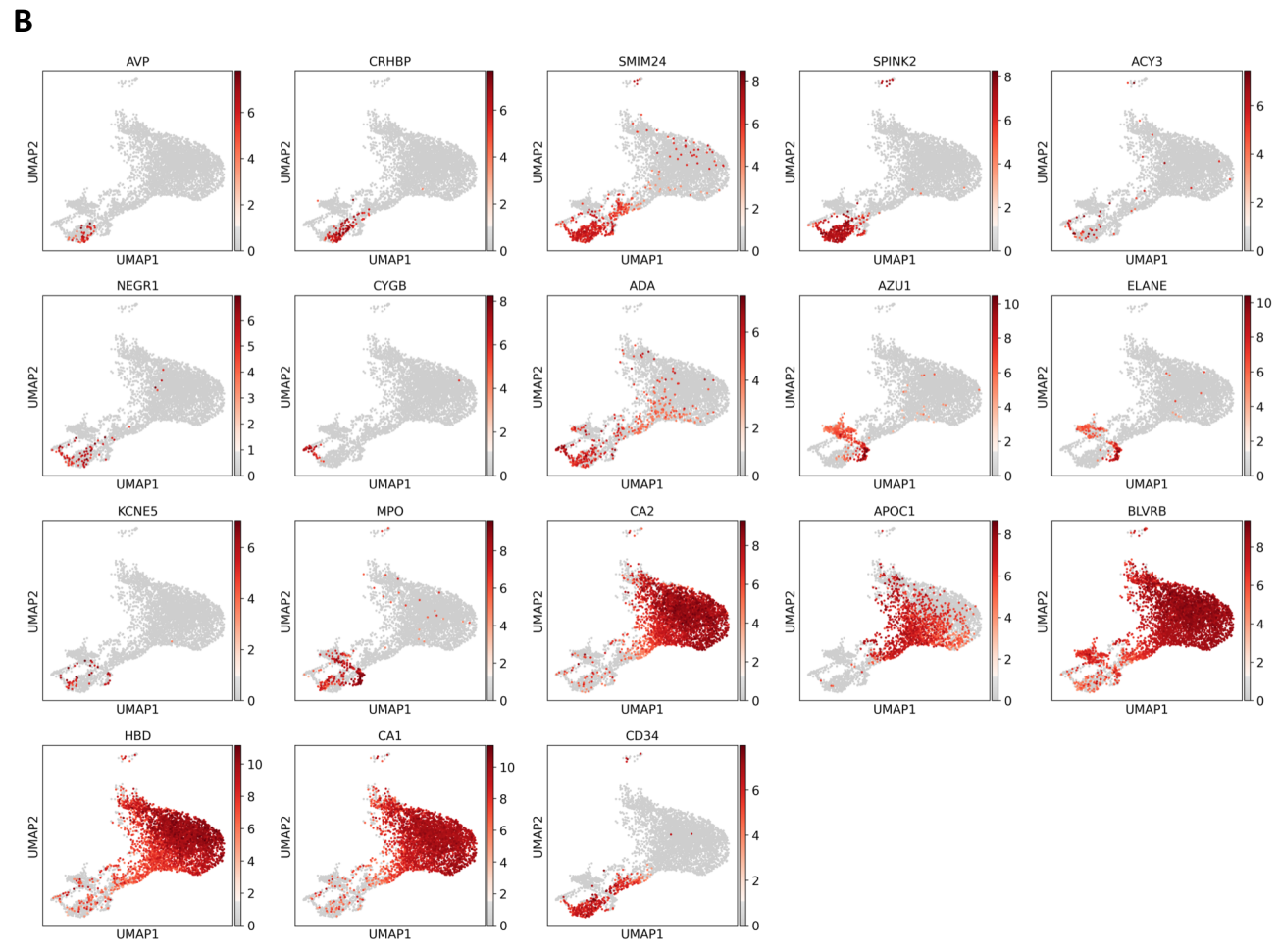
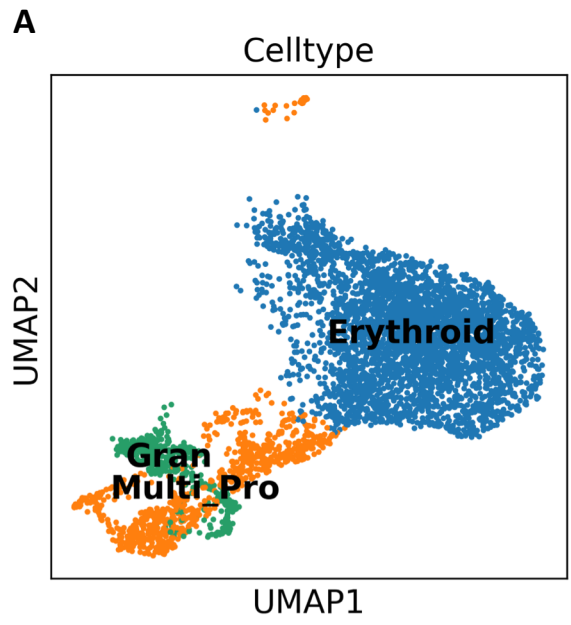


Figure S5. Cytotoxic genes reported to be expressed in normal $\gamma\delta$ T cells had no or low expression in malignant $\gamma\delta$ T cells

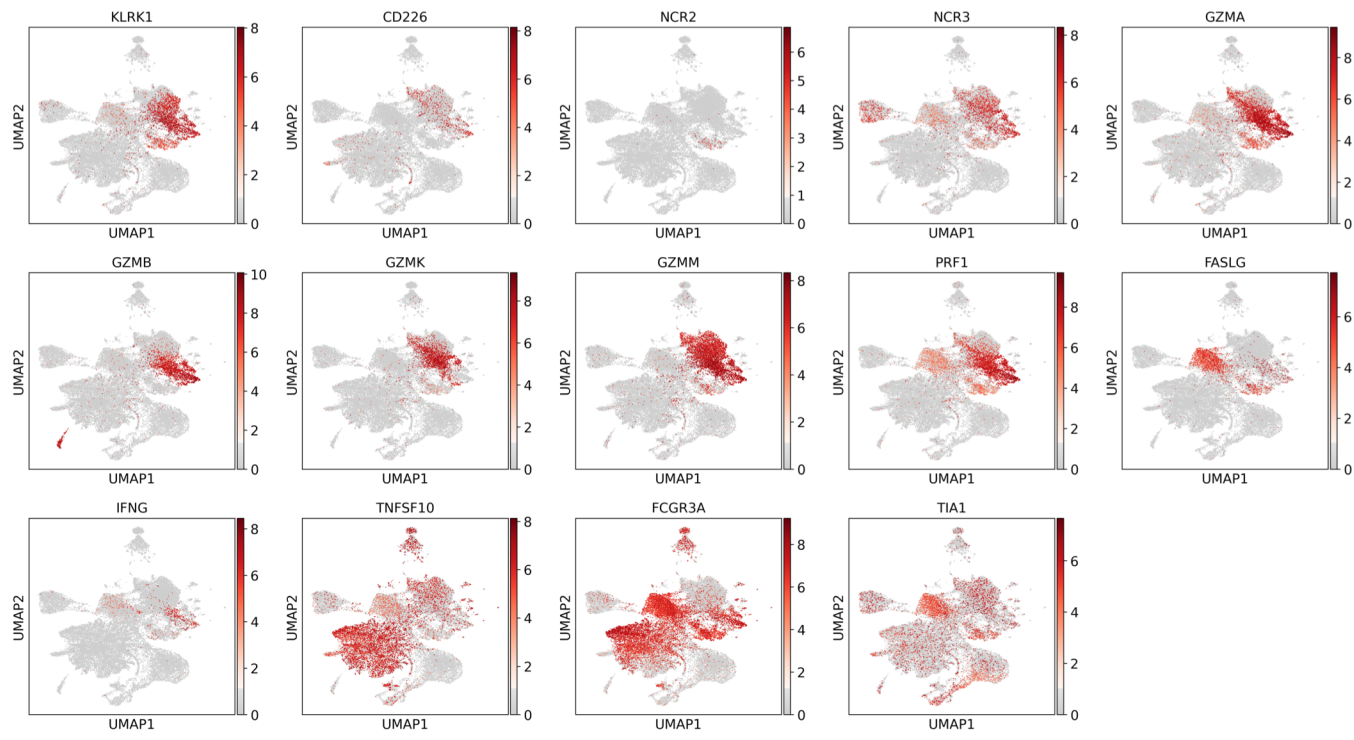


Figure S6. Cell Cycle phase distribution in Tumor sub-clusters

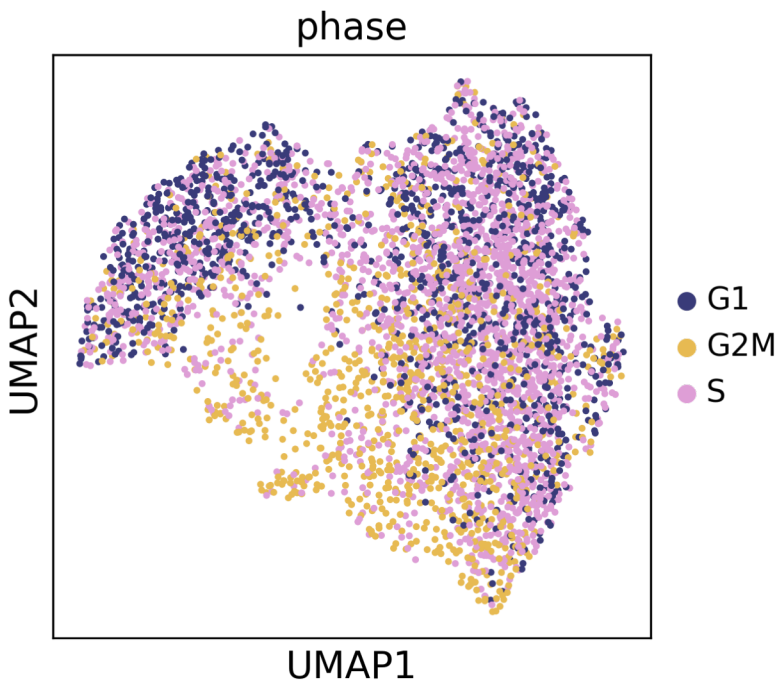


Figure S7. CD19 was highly expressed in Tumor_1 but not Tumor_2. Other B cell marker were not expressed in both Tumor sub-clusters

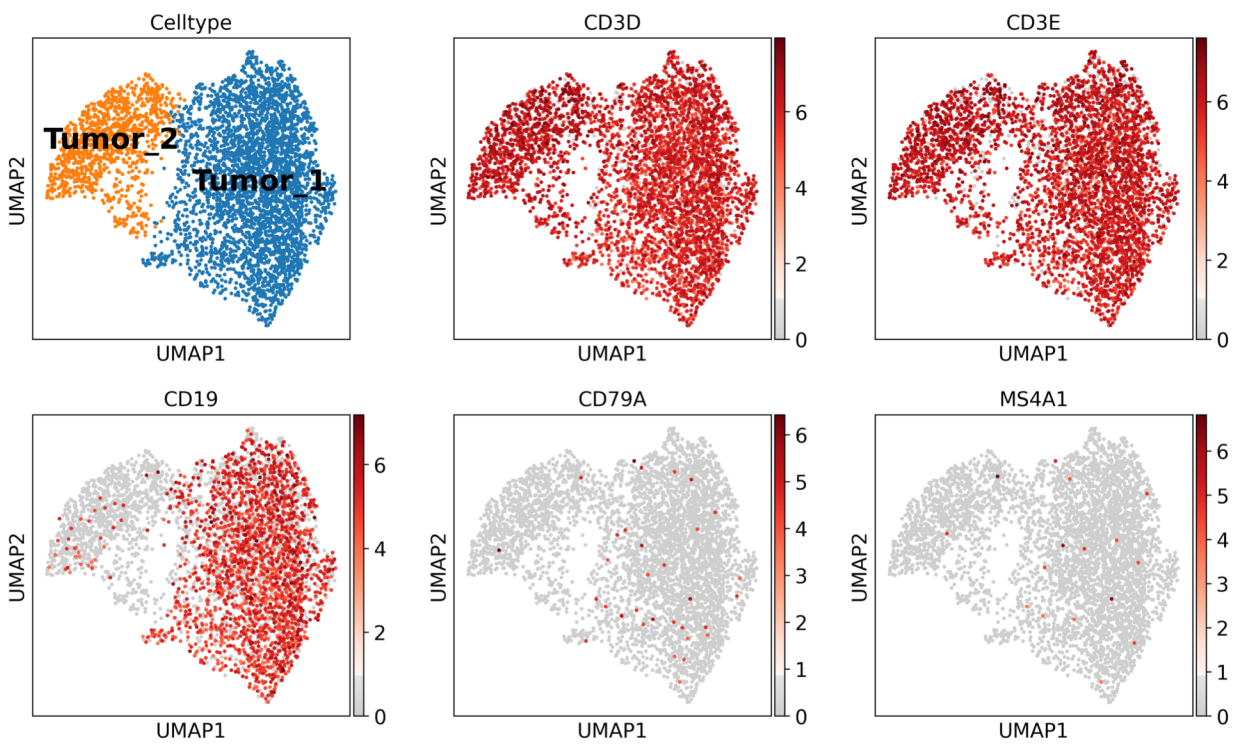


Figure S8. T cell sub-clusters identified from the tumor microenvironment. (A and B) The expression of marker genes for the T cell sub-clusters annotation

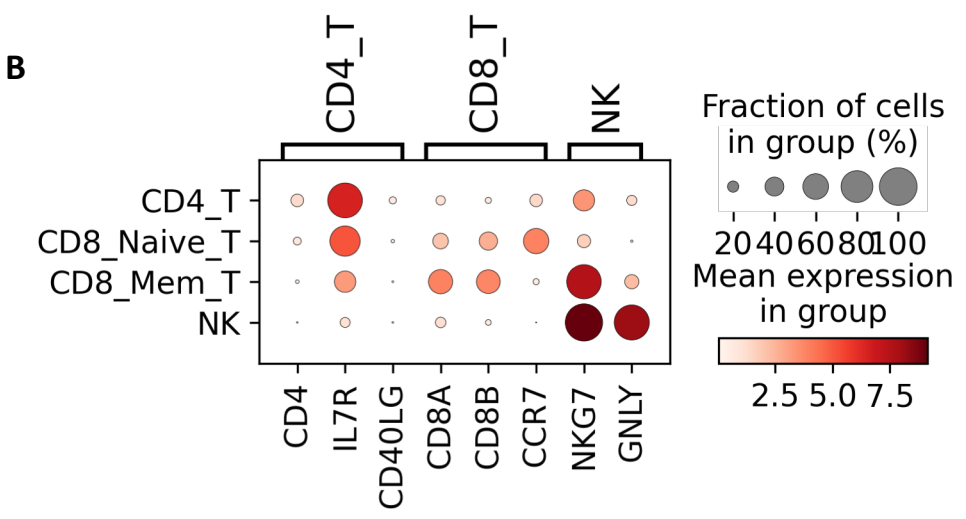
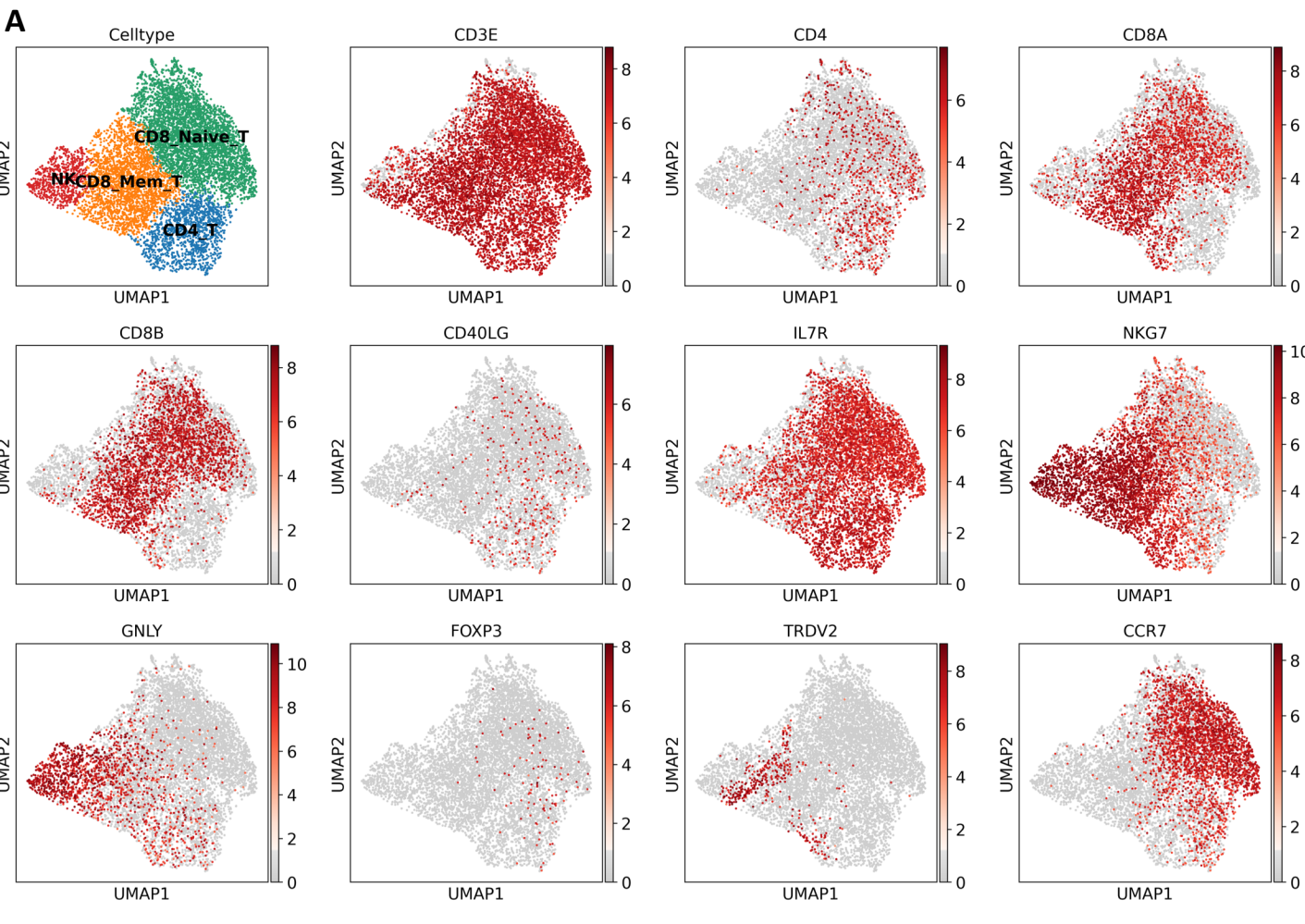


Figure S9. Total interaction counts and interaction strength inferred from each sample

