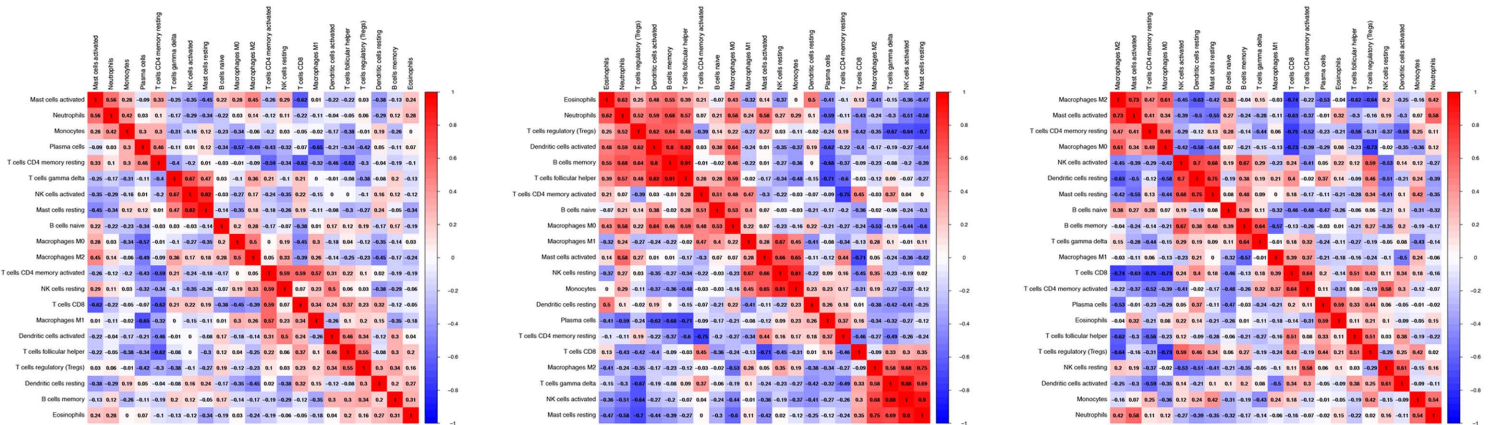


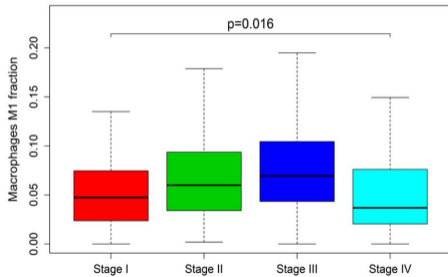
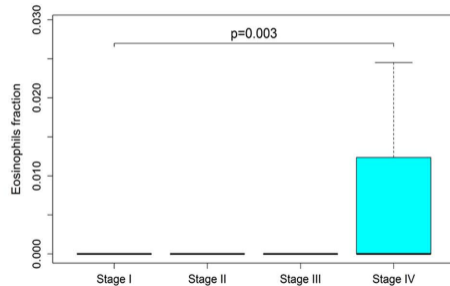
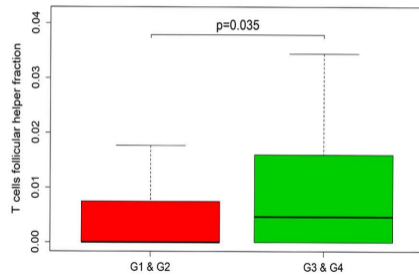
A: Total Samples

B: Normal Samples

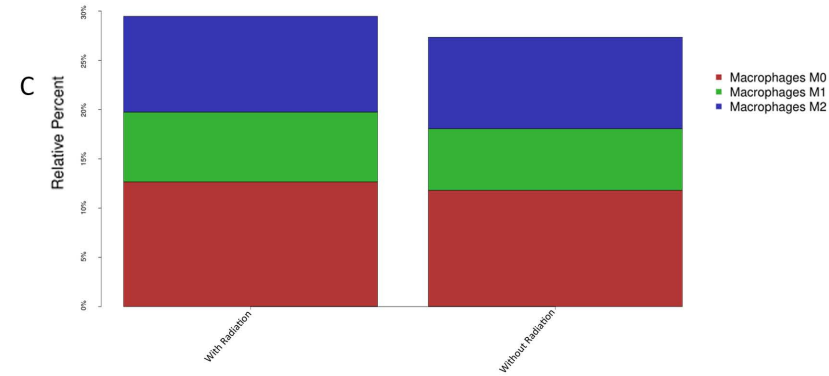
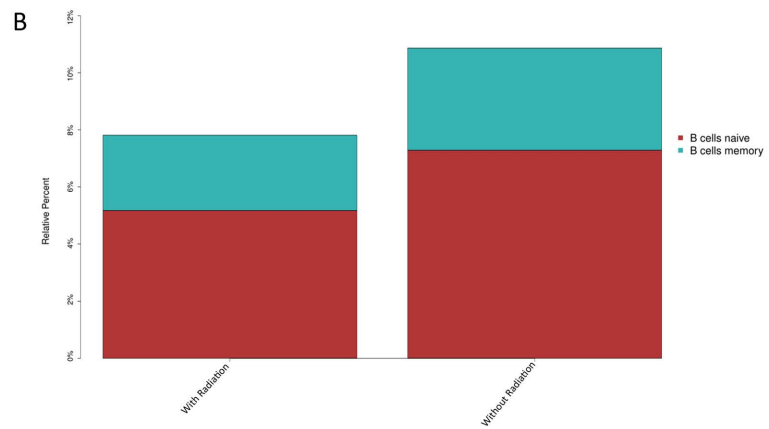
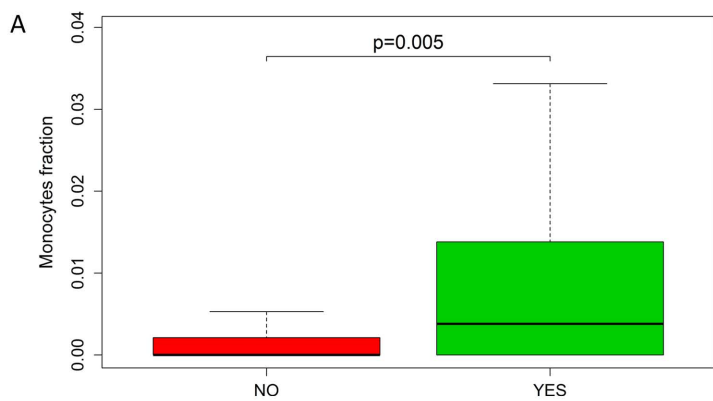
C: Tumor Samples



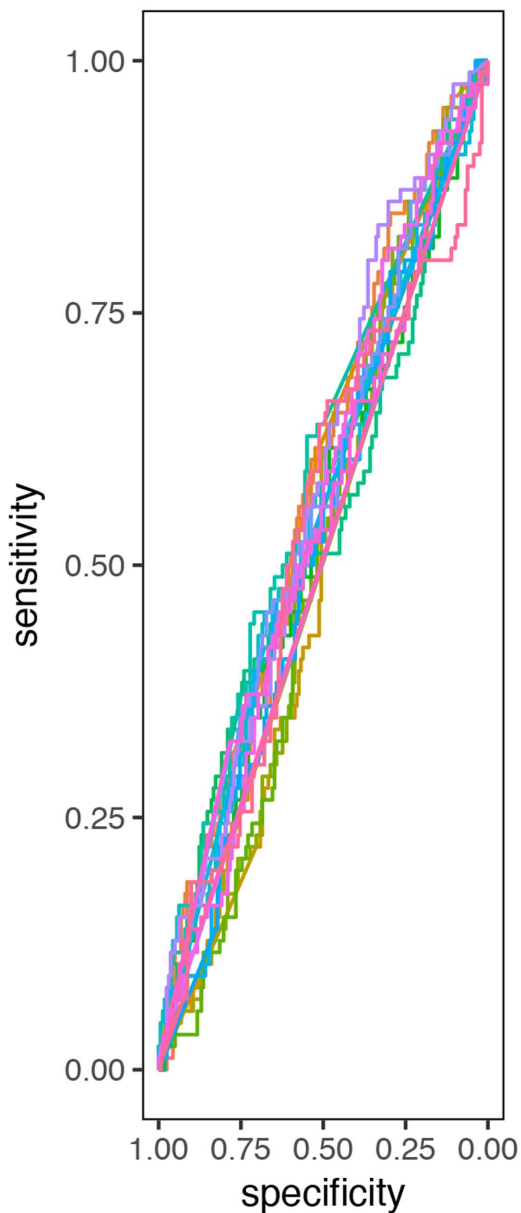
Supplementary Figure 1 Correlation matrix of all 22 immune proportions and immune cytolytic activity in the TCGA GC cohort, including total samples (**A**), normal samples (**B**) and tumor samples (**C**).

A**B****C**























Supplementary Figure 2 Box plot depicting the correlation between several LM22 immune cells and GC classification based the distribution of CIBERSORT *P*-value. **A-B.** M1 macrophages and eosinophils in the pathological stage. **C.** follicular helper T cells at the late stage (G3/G4).



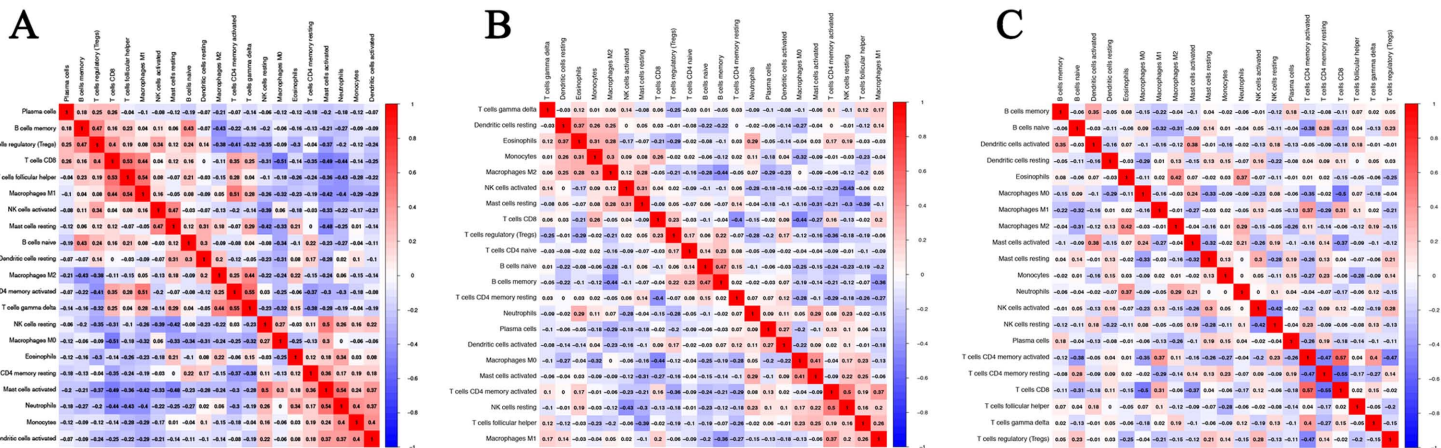
Supplementary Figure 3 The difference of immune infiltration between GC with radiation therapy and without radiation therapy samples. **A.** Box plot of the distribution of CIBERSORT *P* value for monocytes. **B-C.** The total difference in total B cells and total macrophages, respectively.



name

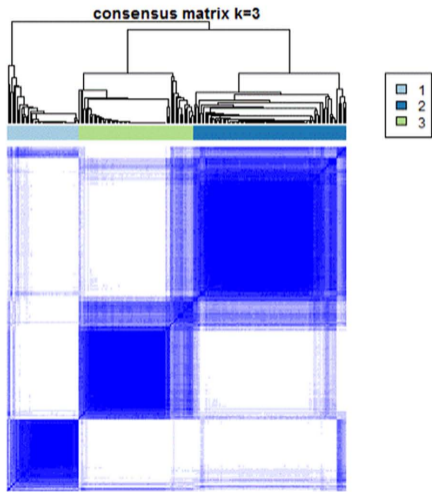
- | | | | |
|-----------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------|------------------------------|
|  | B cells memory |  | Neutrophils |
|  | B cells naive |  | NK cells activated |
|  | Dendritic cells activated |  | NK cells resting |
|  | Dendritic cells resting |  | Plasma cells |
|  | Eosinophils |  | T cells CD4 memory activated |
|  | Macrophages M0 |  | T cells CD4 memory resting |
|  | Macrophages M1 |  | T cells CD4 naive |
|  | Macrophages M2 |  | T cells CD8 |
|  | Mast cells activated |  | T cells follicular helper |
|  | Mast cells resting |  | T cells gamma delta |
|  | Monocytes |  | T cells regulatory (Tregs) |

Supplementary Figure 4 AUC curves of biomarkers prognostic model built by LM22 immune cell subsets.

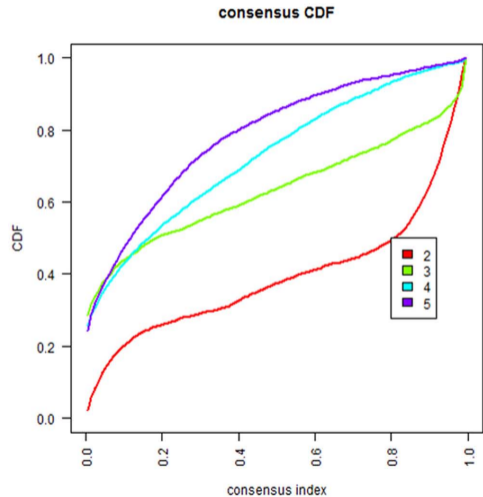


Supplementary Figure 5 The cluster counts evaluated. (A) consensus heatmap (B) CDF curve of $K=2-5$. (C) The relative change in area under the CDF curve of $K=2-5$.

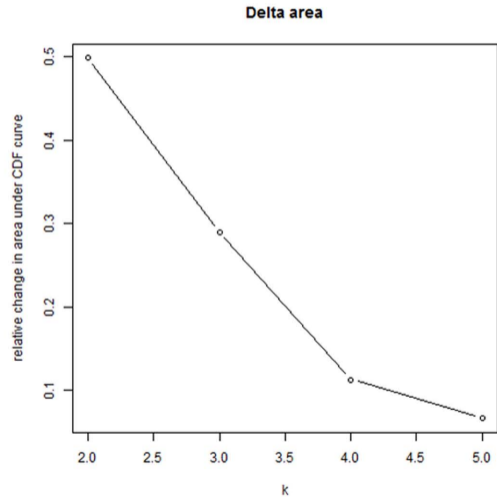
A



B



C



Supplementary Figure 6 Heatmap of 22 immune cells and clusters. **A-C** is for the correlation matrix of the 22 immune cells proportions in cluster I - III, respectively. **D**. Heatmap of the 22 immune cells proportions.