



(A) The UMAP plot of embeddings outputted by immune cell for LN patients and mouse with csMAHN. (B,C) ISG score of immune cell of LN patients and mouse. (D) The UMAP plot of embeddings outputted by macrophage for LN patients and mouse with csMAHN. (E) ISG score of immune cell of LN patients (left panel) and mouse (right panel). (F) Proportion of Phagocytic CD16+ macrophages of LN patients and mouse in each status. (G) Correlation between proportion of Phagocytic CD16+ macrophages and Complement titer in LN patients. (H) The UMAP plot of embeddings outputted by T cell for LN patients and mouse with csMAHN. (I) ISG score of T cell of LN patients (left panel) and mouse (right panel). (J) Proportion of GZMK+ CD8+ Tcells (left panel) and Central memory CD4+ T cells (right panel) of LN patients and mouse in each status.