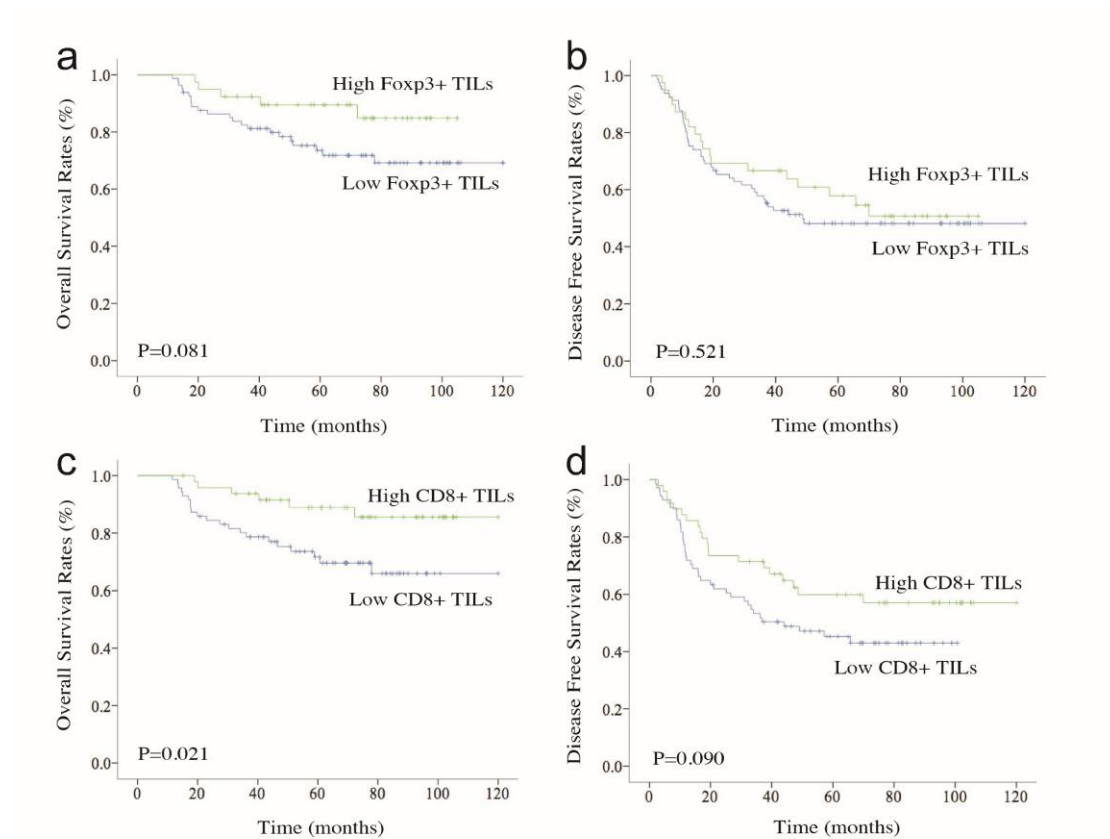
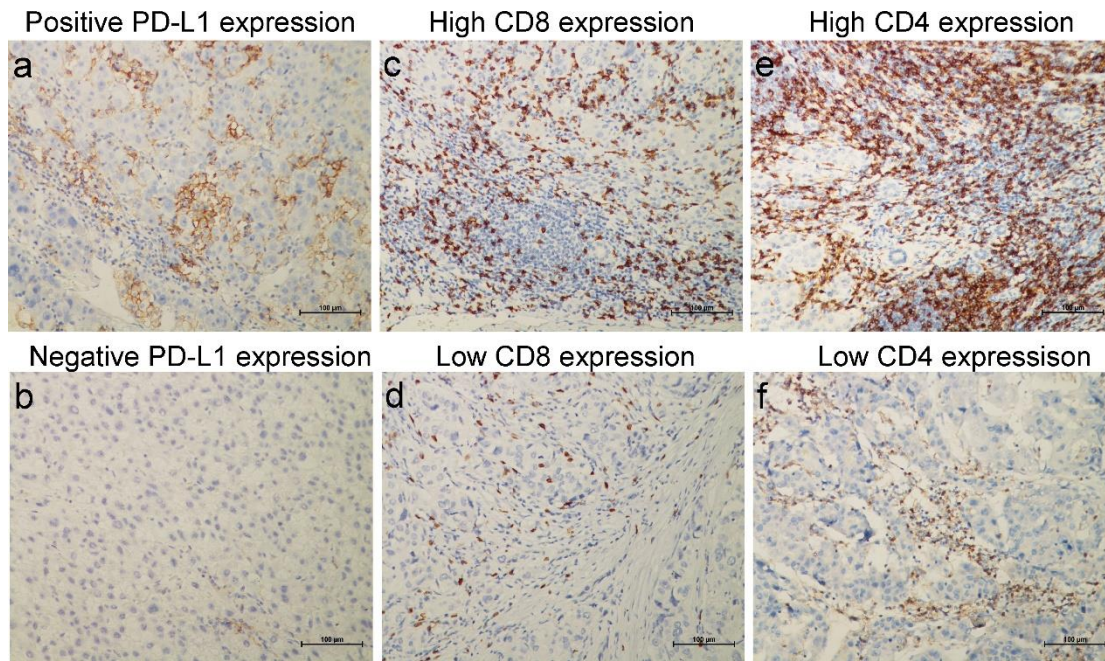




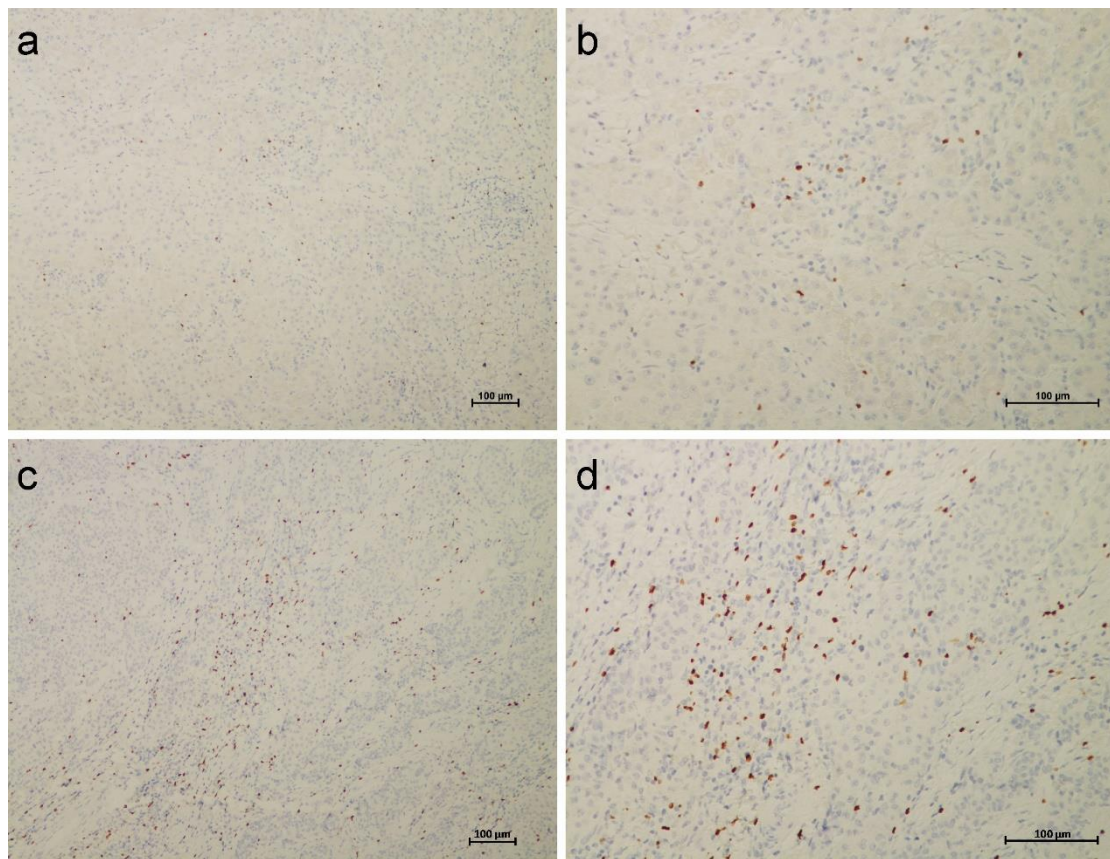
Supplementary Figure 1. The effects of the number of Foxp3⁺ TILs and CD8⁺ TILs on prognosis.

Kaplan-Meier survival curve for overall survival (OS, a) and disease-free survival (DFS, b) according to the number of Foxp3⁺ TILs as well as the OS (c) and DFS (d) by the number of CD8⁺ TILs.



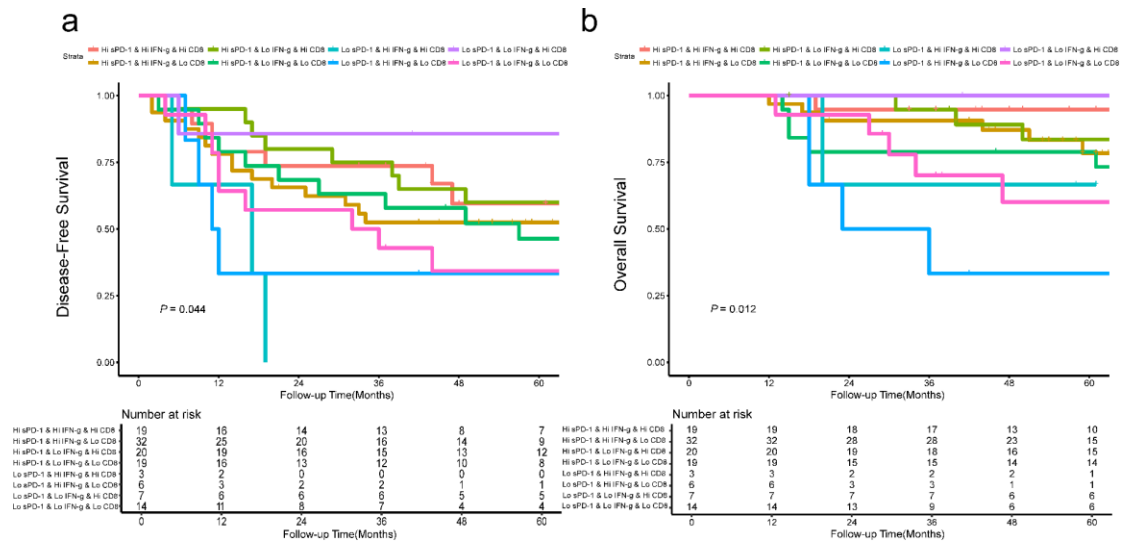
Supplementary Figure 2. Immunohistochemical staining of PD-L1, CD4 and CD8 in HCC.

(a) PD-L1-positive tumor cells (PD-L1 expression $\geq 5\%$); (b) PD-L1-negative tumor cells (PD-L1 expression $< 5\%$); (c) CD8⁺-high tumor infiltrating lymphocytes; (d) CD8⁺-low tumor infiltrating lymphocytes; (e) CD4⁺-high tumor infiltrating lymphocytes (f) CD4⁺-low tumor infiltrating lymphocytes; (a - f, 200 $\times$ magnification).



Supplementary Figure 3. Immunohistochemical features of Foxp3 expression in HCC.

(a, b) A low number of Foxp3⁺ tumor infiltrating lymphocytes; (c, d) A high number of Foxp3⁺ tumor infiltrating lymphocytes; (a and c, 100× magnification; b and d, 200× magnification).



Supplementary Figure 4. Kaplan–Meier estimates of OS and DFS in HCC patients

broken down into eight subgroups by levels of IFN-γ, sPD-1 and CD8⁺ TILs.

Kaplan-Meier curves for OS (a) and DFS (b) according to subdivision by the levels of sPD-

1 and IFN-γ, as well as the number of CD8⁺ TILs. Lo, low; Hi, high.

Supplementary Table 1. Kappa values for the inter-rater reliability for each IHC staining factor.

IHC staining factor	Kappa Value
PD-L1	0.898
CD4	0.832
CD8	0.841
Foxp3	0.812