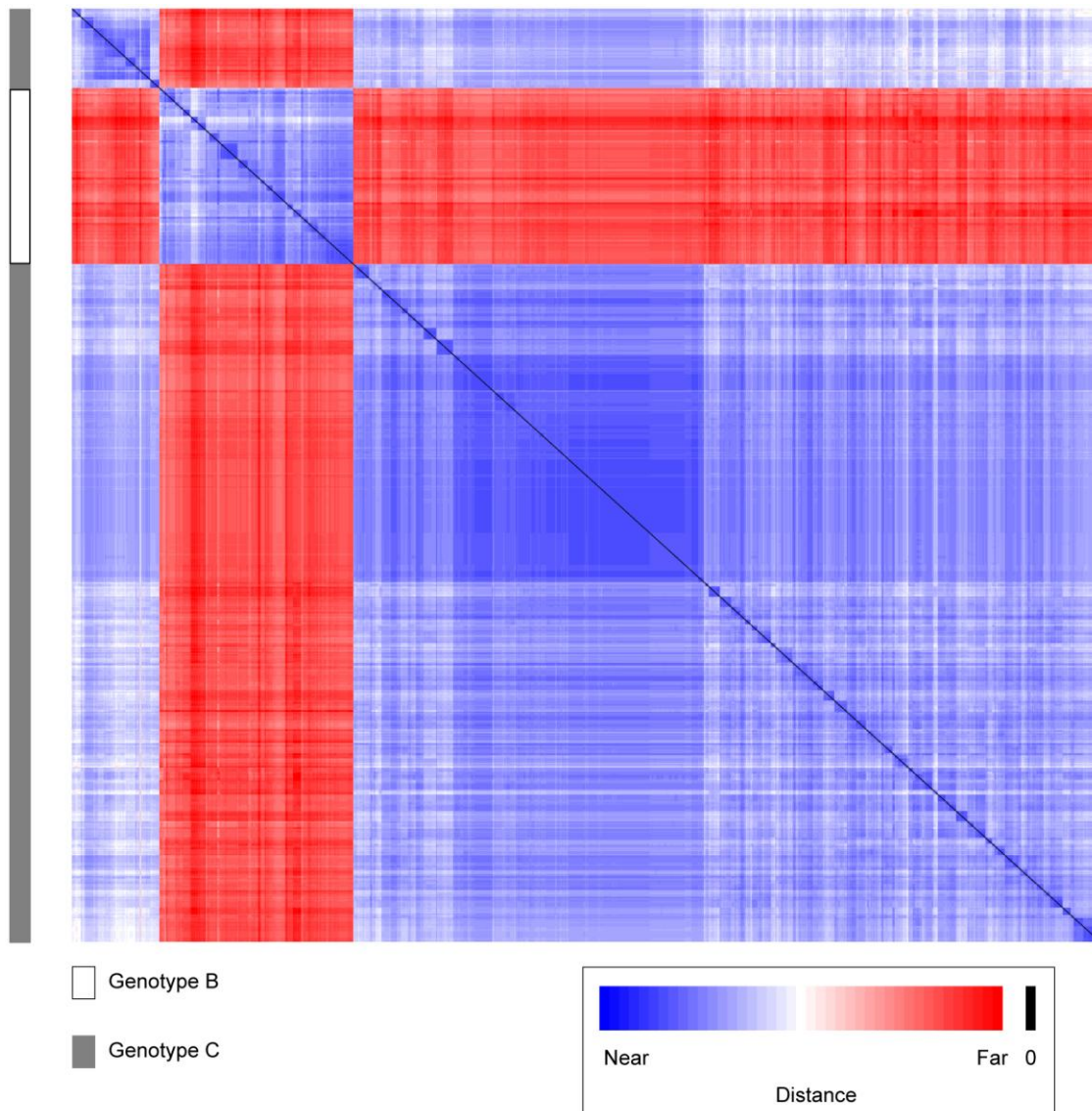
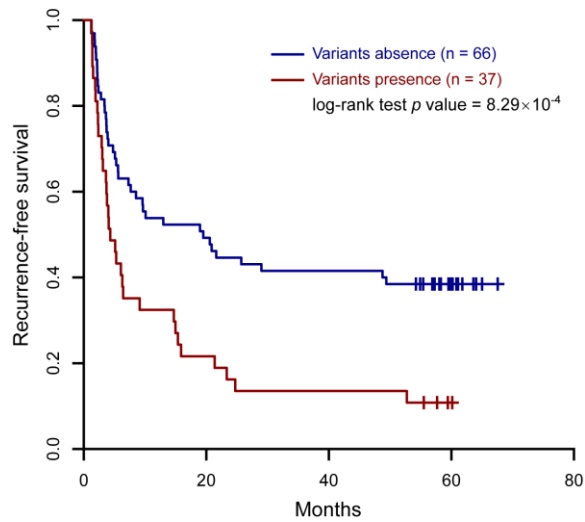


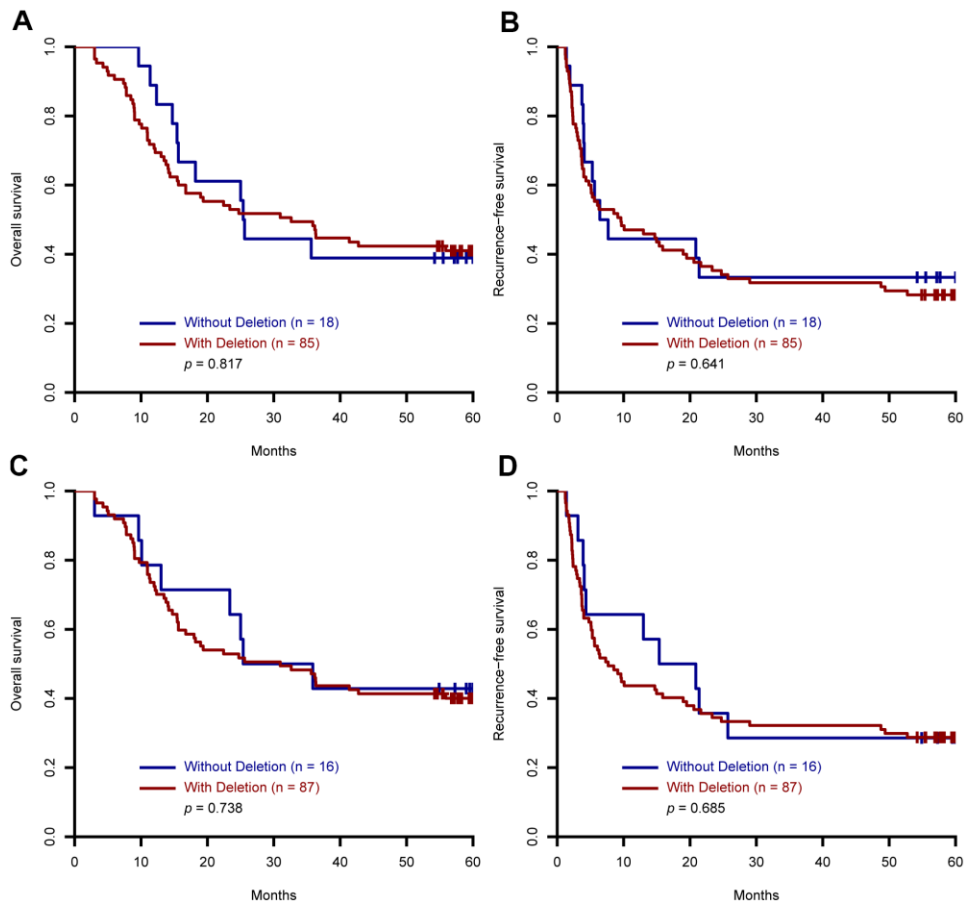
## SUPPLEMENTARY FIGURES



**Supplementary Figure 1. Heat map of pairwise distances of the clones from the serum samples.** Every row or column represents a clone. The grids on the diagonal line represent the distances between a clone and itself, which are all 0 (marked by black).



**Supplementary Figure 2. Combined variants predicted unfavorable recurrence-free survival.** G40C and C147T were combined because of their high frequency of concurrence. Kaplan–Meier curve was plotted to visualize the prognosis difference.



**Supplementary Figure 3. The prognostic value of the preS2-deletion mutations in the HCC patients from our cohort.** (A) the serum samples, overall survival; (B) the serum samples, recurrence-free survival; (C) tumoral samples, overall survival; (D) tumoral samples, recurrence-free survival.