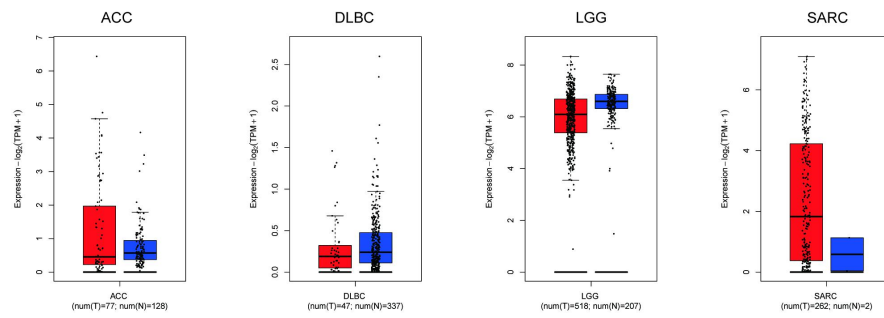


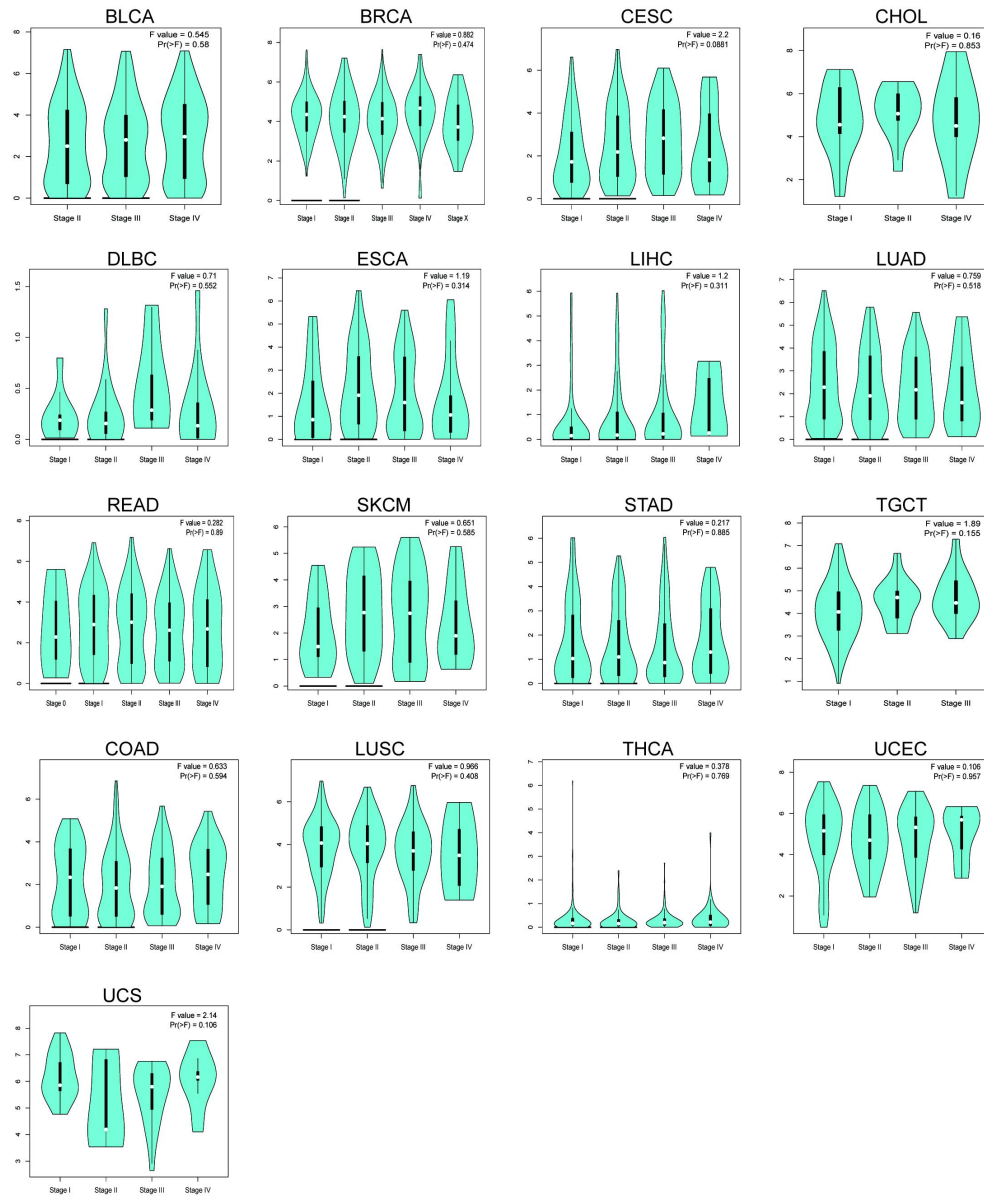
Supplementary Material

Supplementary Figure 1



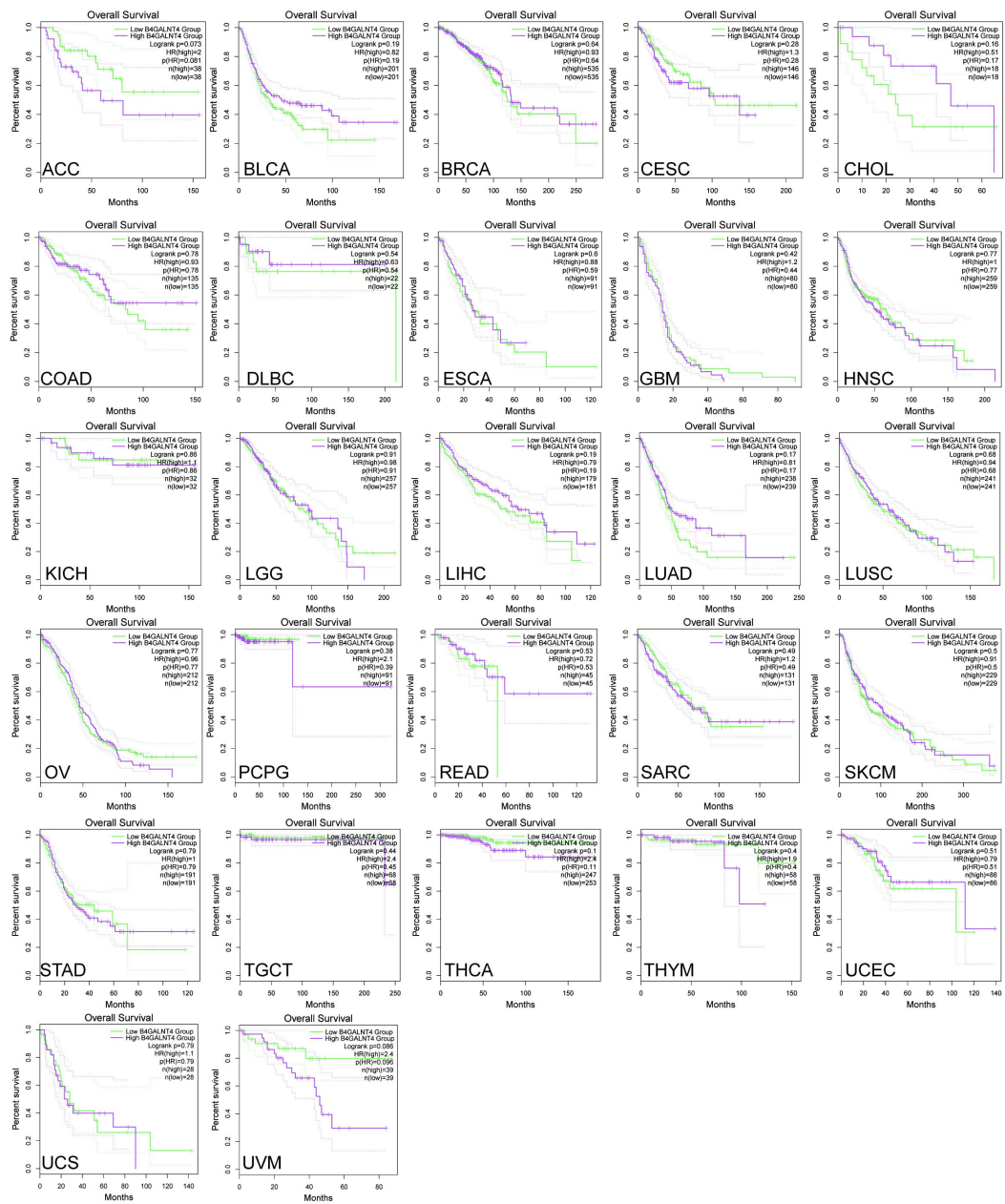
Supplementary Figure 1. The expression statuses of the B4GALNT4 gene in ACC, DLBC, LGG and SARC in TCGA project were compared with the corresponding normal tissues of the GTEx databases.

Supplementary Figure 2



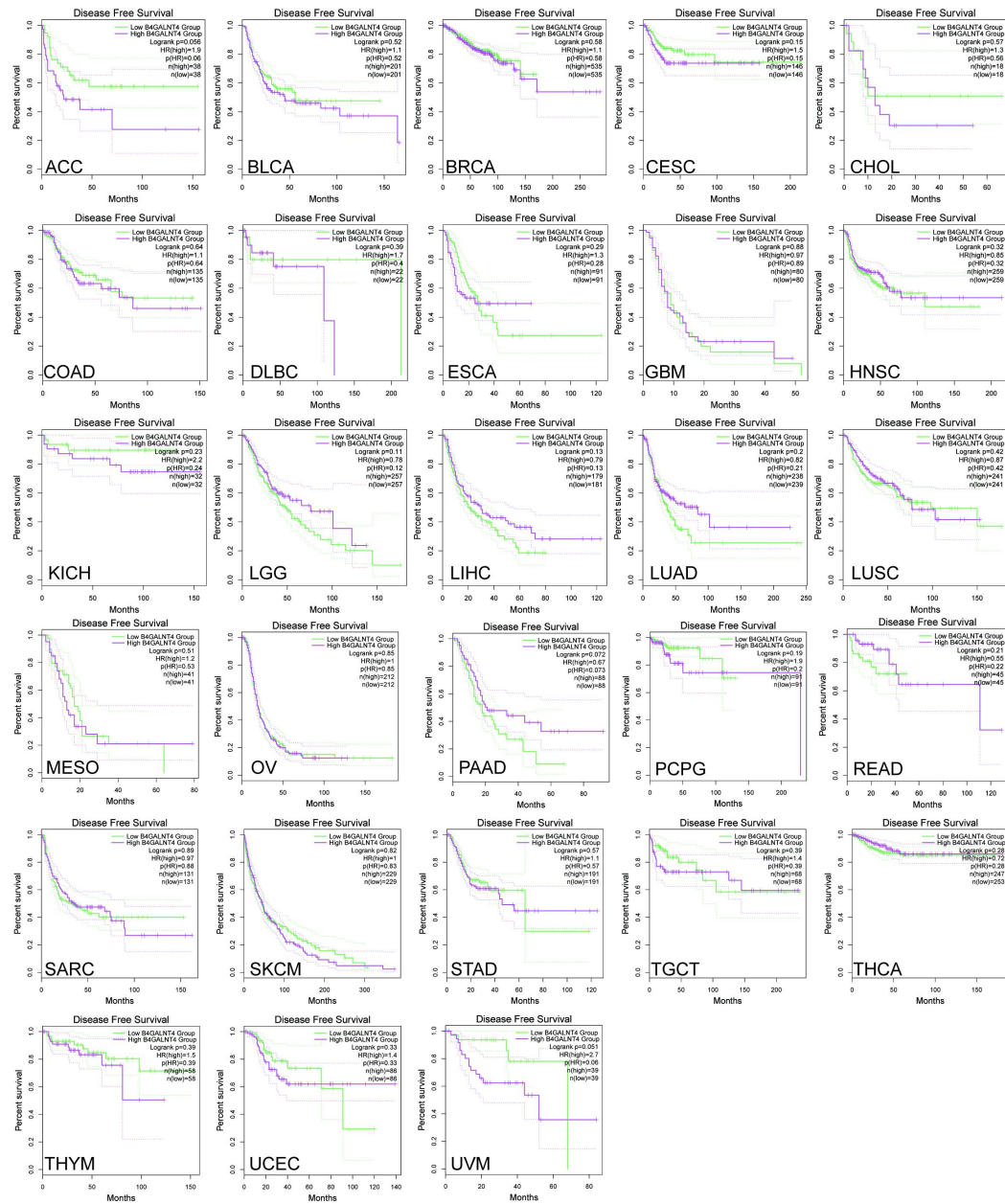
Supplementary Figure 2. The expression of the B4GALNT4 gene were analyzed by the main pathological stages (I, II, III, and IV) in 17 types of cancer.

Supplementary Figure 3



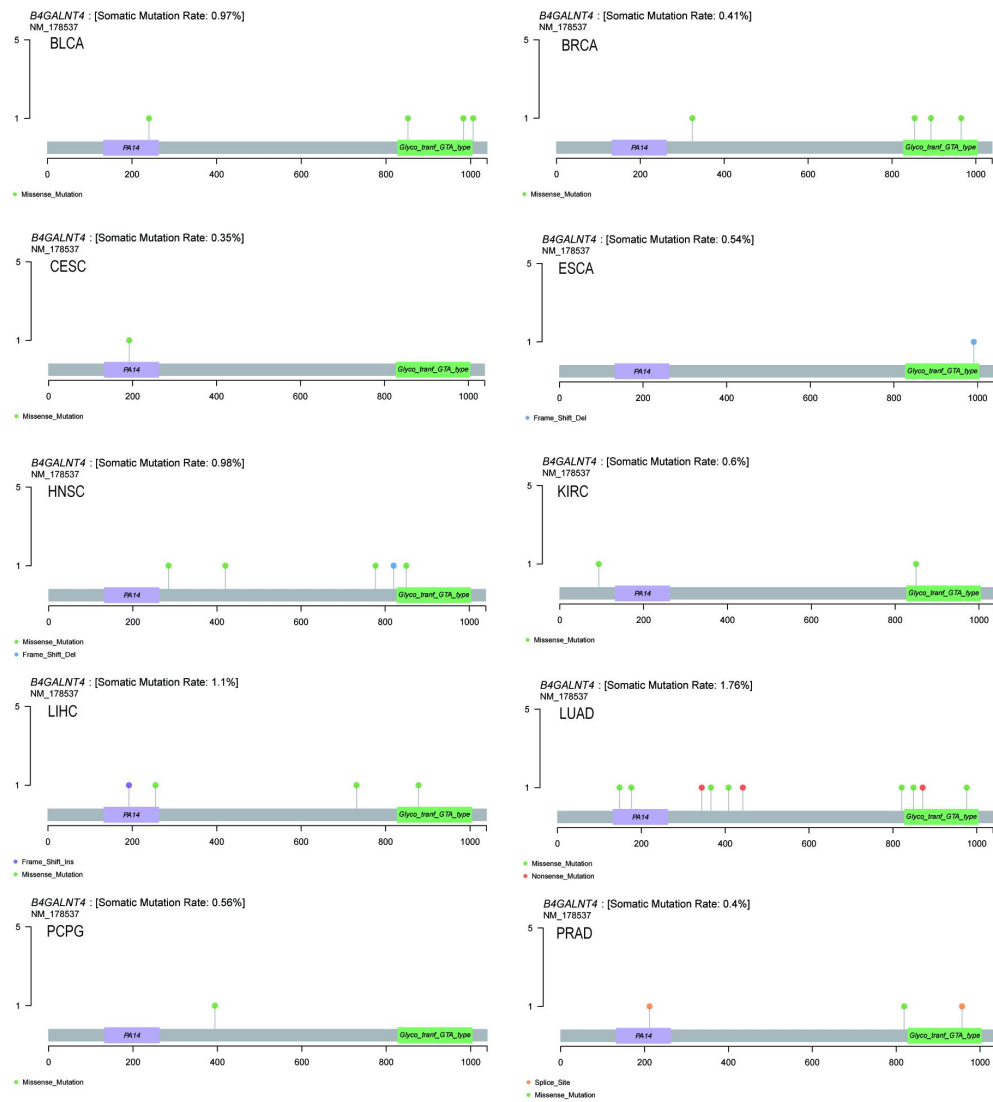
Supplementary Figure 3. The overall survival of different types of cancer was analyzed in different B4GALNT4 gene expression.

Supplementary Figure 4



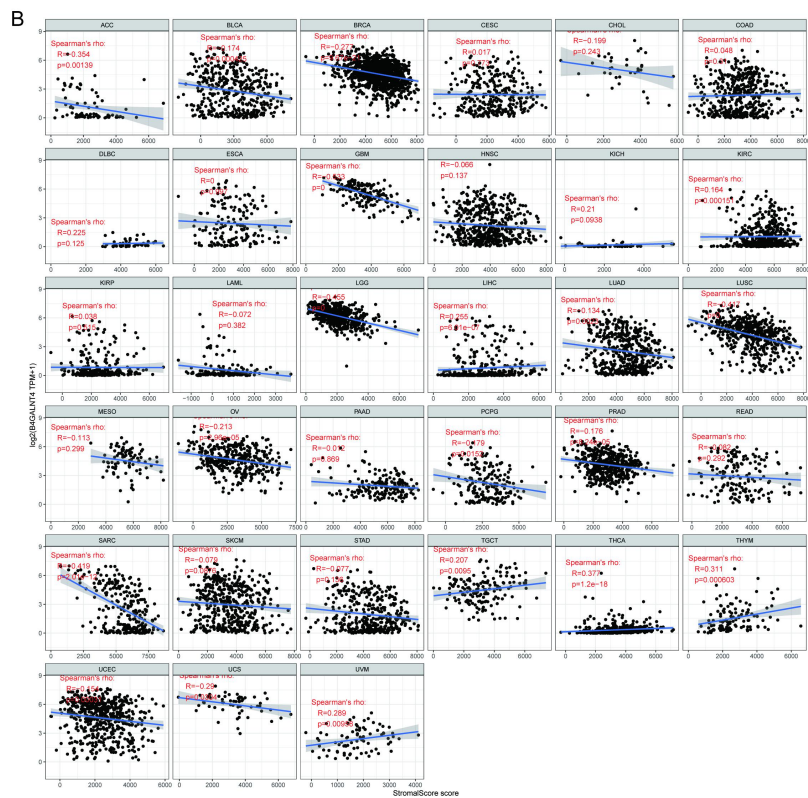
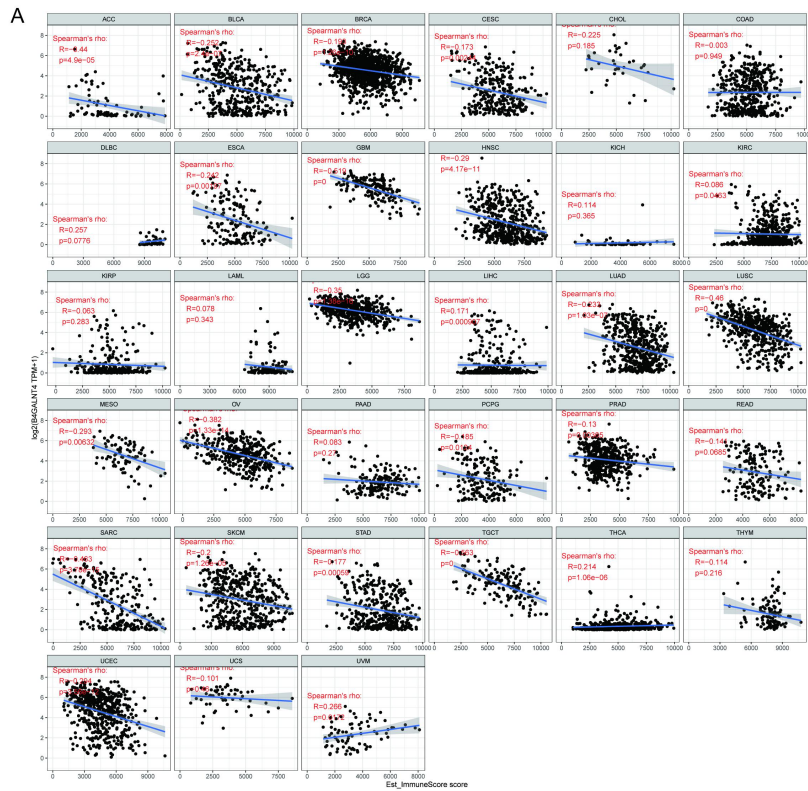
Supplementary Figure 4. The disease-free survival of different types of cancer was analyzed in different B4GALNT4 gene expression.

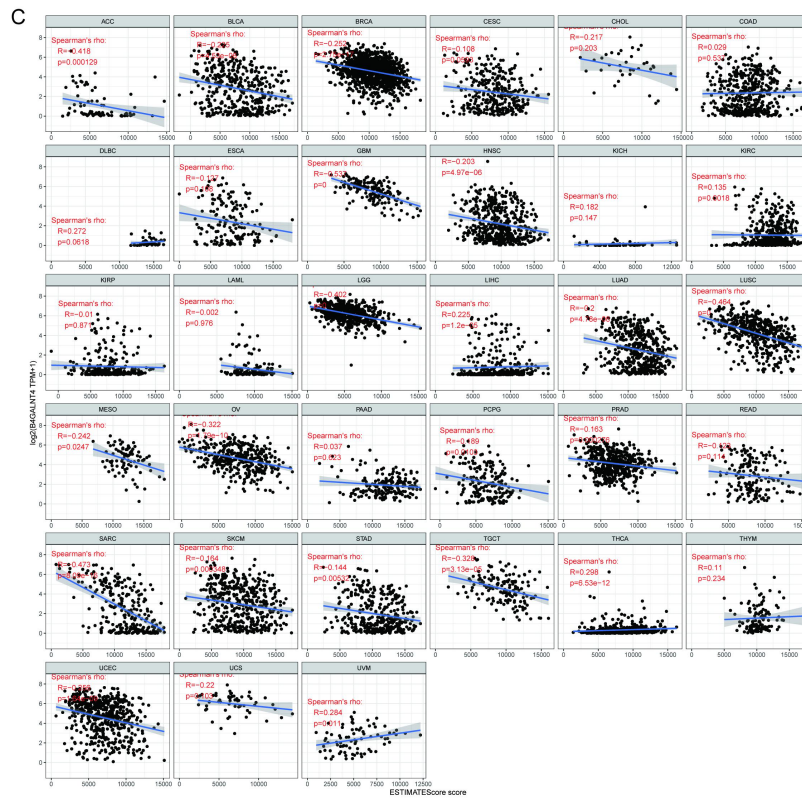
Supplementary Figure 5



Supplementary Figure 5. The mutational types and sites of B4GALNT4 gene were shown in different types of cancer.

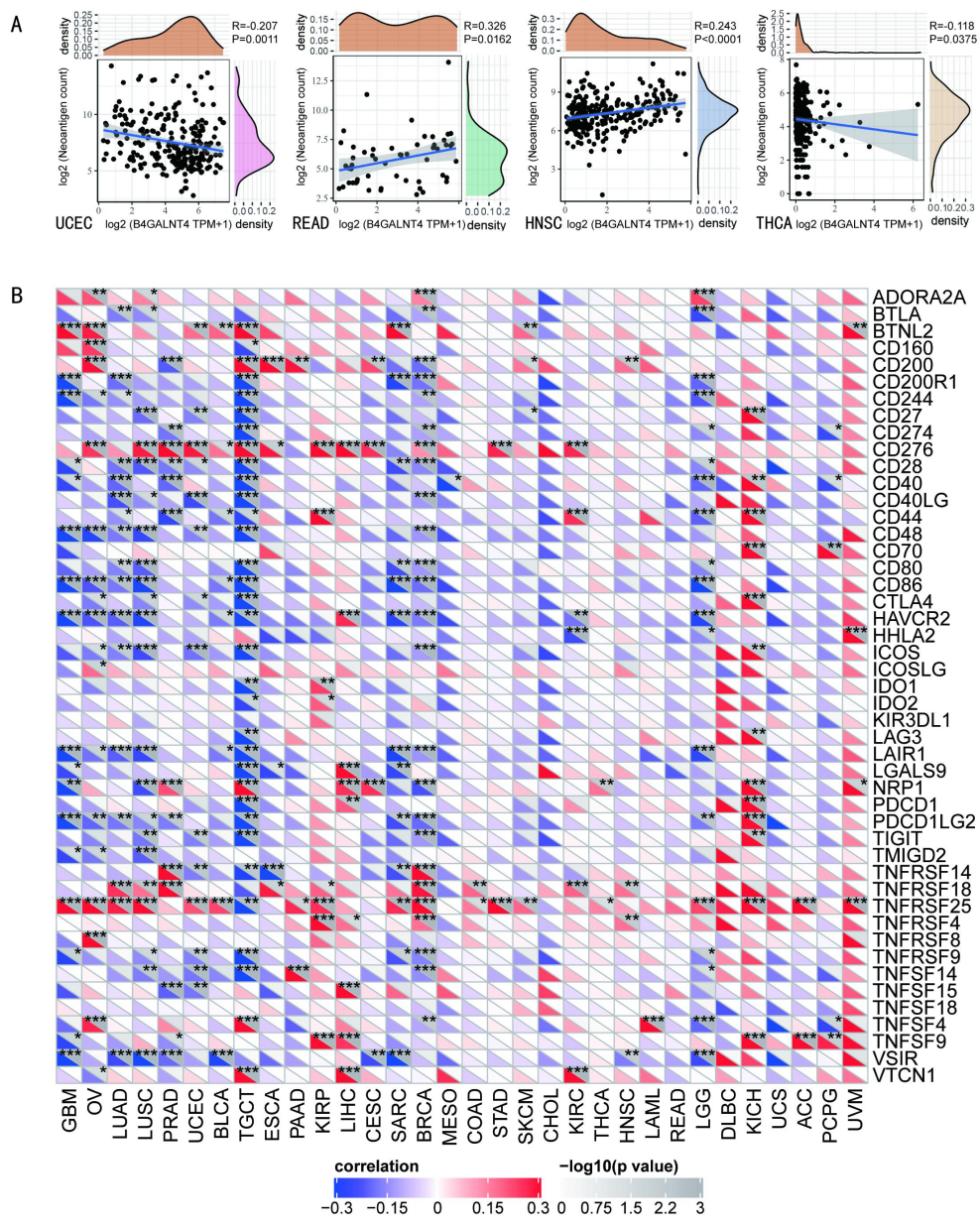
Supplementary Figure 6



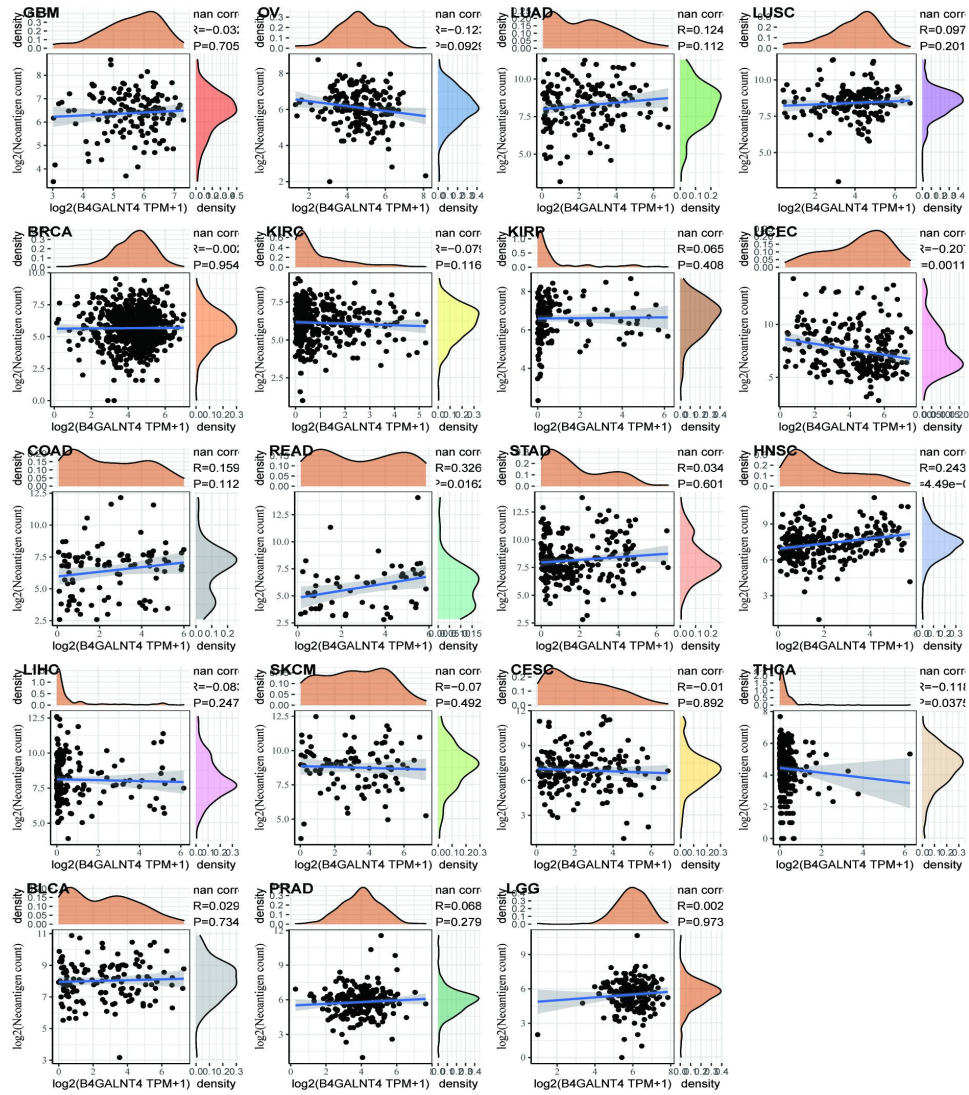


Supplementary Figure 6 A. The relationship of B4GALNT4 expression with immune infiltration was assessed on immune score. **B.** The relationship of B4GALNT4 expression with immune infiltration was assessed on stromal score. **C.** The relationship of B4GALNT4 expression with immune infiltration was assessed on ESTIMATES score.

Supplementary Figure 7



C



Supplementary Figure 7 B4GALNT4 expression was correlated with tumor neoantigens and immune checkpoint markers. A. Relationship between B4GALNT4 expression and the tumor neoantigens in UCEC, READ, HNSC and THCA. B. Correlation analysis of B4GALNT4 expression with immune checkpoint gene in pan-cancer. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$. C. Relationship between B4GALNT4 expression and the tumor neoantigens in the remaining 19 tumors.