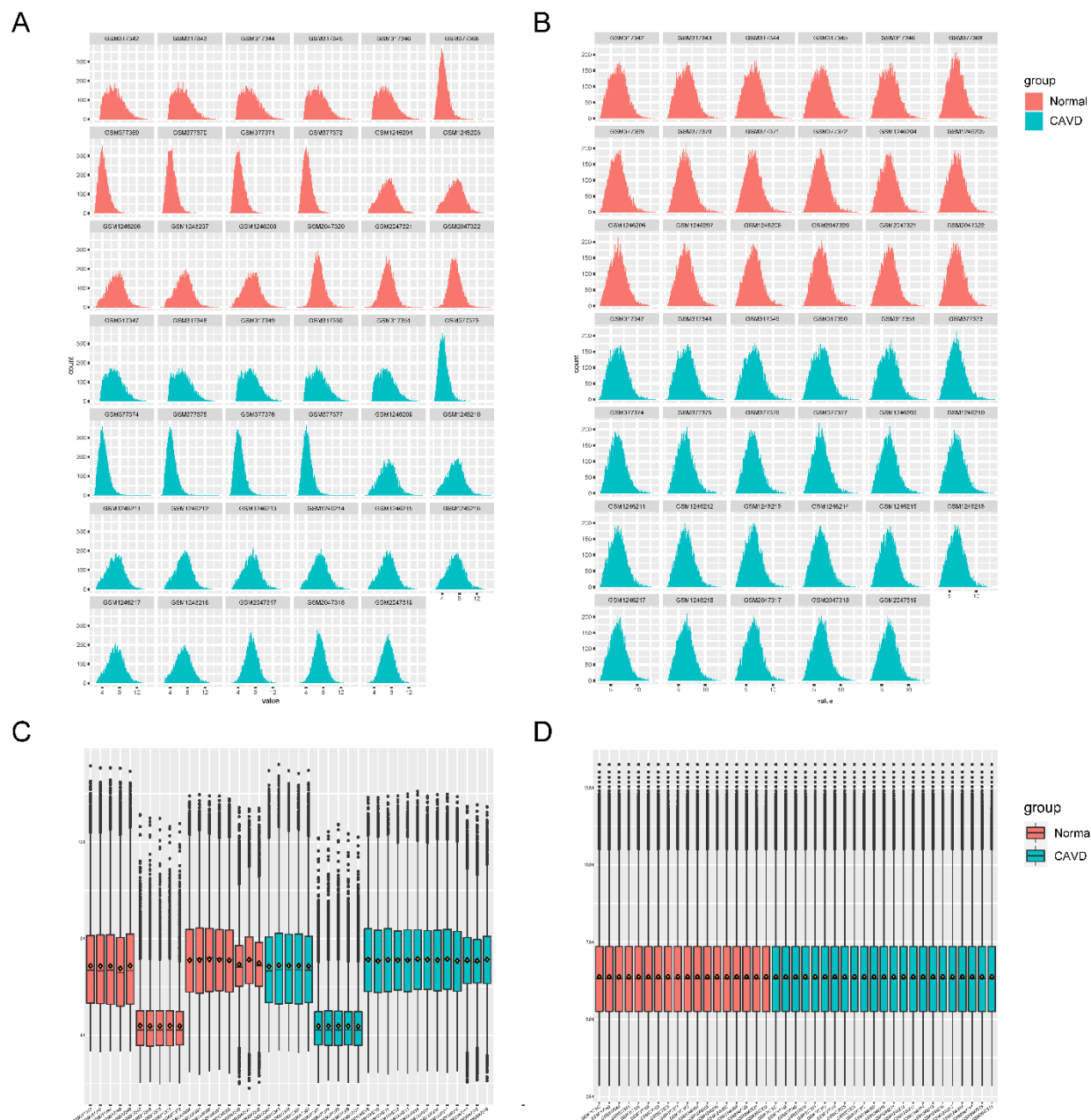


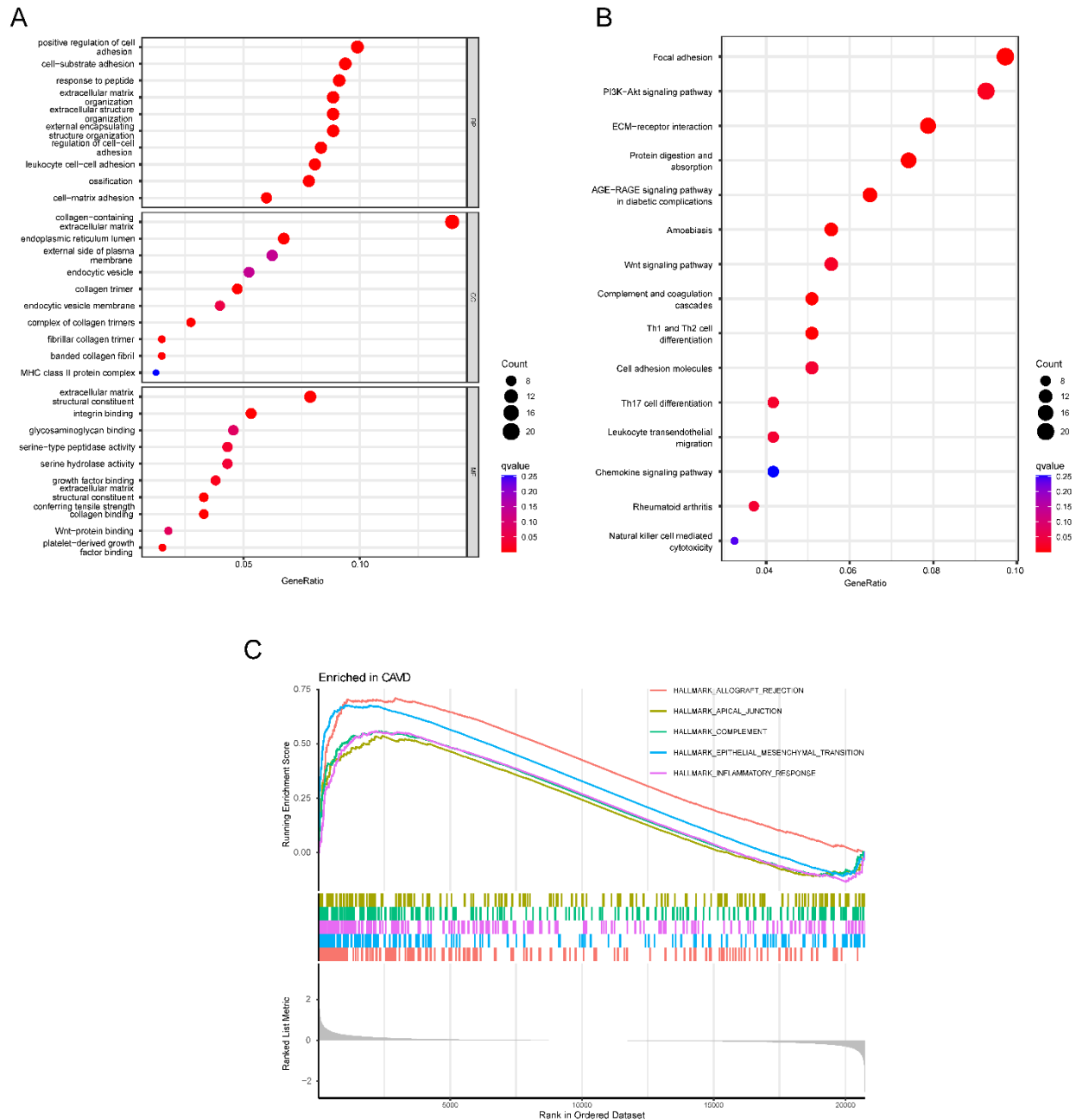
# Supplementary Material

## 1 Supplementary Figure 1



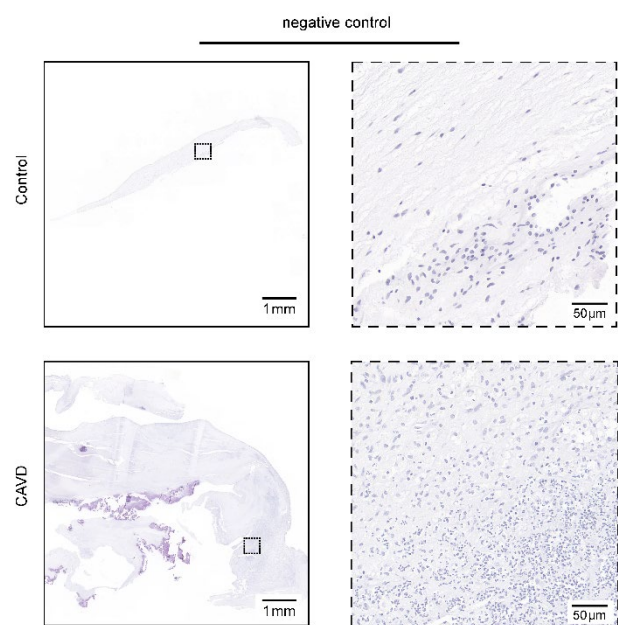
**Supplementary Figure 1 | Comparison of data distribution before (A, C) and after (B, D) data correction.**

## 2 Supplementary Figure 2



**Supplementary Figure 2 | Biofunctional enrichment analysis of differentially expressed genes (DEGs) in validation dataset (GSE83453). (A)** Gene Ontology functional enrichment analyses of DEGs and the top 10 biological process (BP), cellular component (CC), and molecular function (MF) terms. **(B)** Kyoto Encyclopedia of Genes and Genomes pathway enrichment analyses of DEGs. **(C)** Results of gene set enrichment analysis (GSEA) showing the top five hallmark pathways in CAVD group.

3     **Supplementary Figure 3**



**Supplementary Figure 3** | Immunohistochemical staining of human aortic valve tissue sections with omitted primary antibody as a negative control. The macro and micro staining results are shown from left to right.