

Figure S1 Biological significance and drive gene mutation status of the pN2-A/B molecular types in TCGA-LUAD. (A) pN2-A and (B) pN2-B mutation status of the top 20 genes. (C) GO-biological process, (D) GO-cellular component, and (E) GO-molecular function.

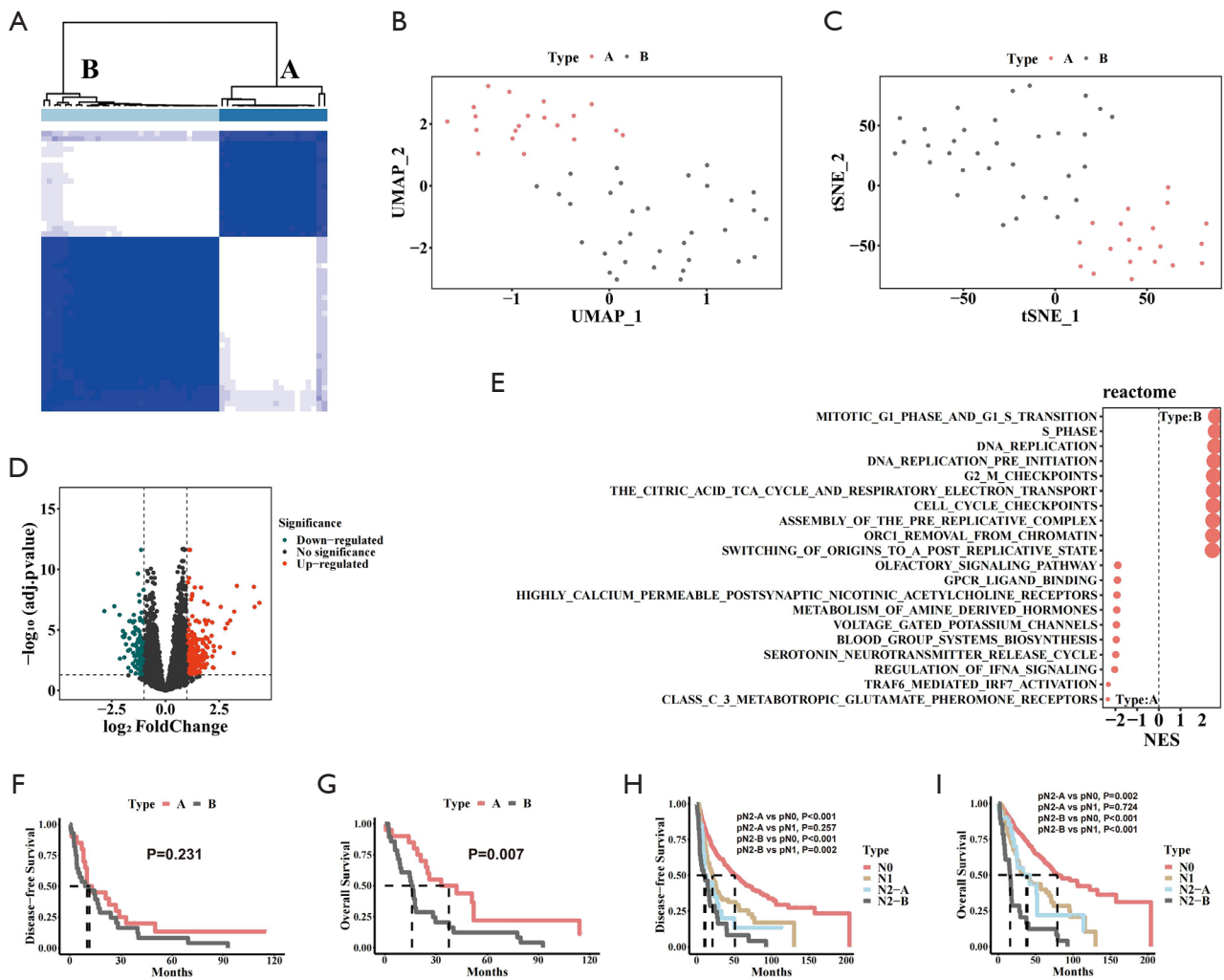


Figure S2 Validation of the molecular typing of LUAD with pN2 metastasis and the clinical and biological assessments using the GSE68465 dataset. (A) Consensus clustering of 53 patients into the pN2-A and pN2-B types based on the gene expression profile. (B) U-MAP and (C) t-SNE were applied to evaluate the effects of classification into the pN2-A/B molecular types, the red and gray circles represent the gene expression profile of each patient with the two subtypes of pN2-A and pN2-B, respectively. (D) Volcano plot showing the gene expression differences between pN2-B and pN2-A. (E) Reactome Pathway Database analysis was performed to assess biological enrichment in the pN2-A/B types by GSEA. Comparisons of the (F) disease-free survival and (G) overall survival among the pN2-A/B molecular groups. Comparisons of the (H) disease-free survival and (I) overall survival and the Kaplan-Meier curves for pN0, pN1, pN2-A, and pN2-B LUAD.

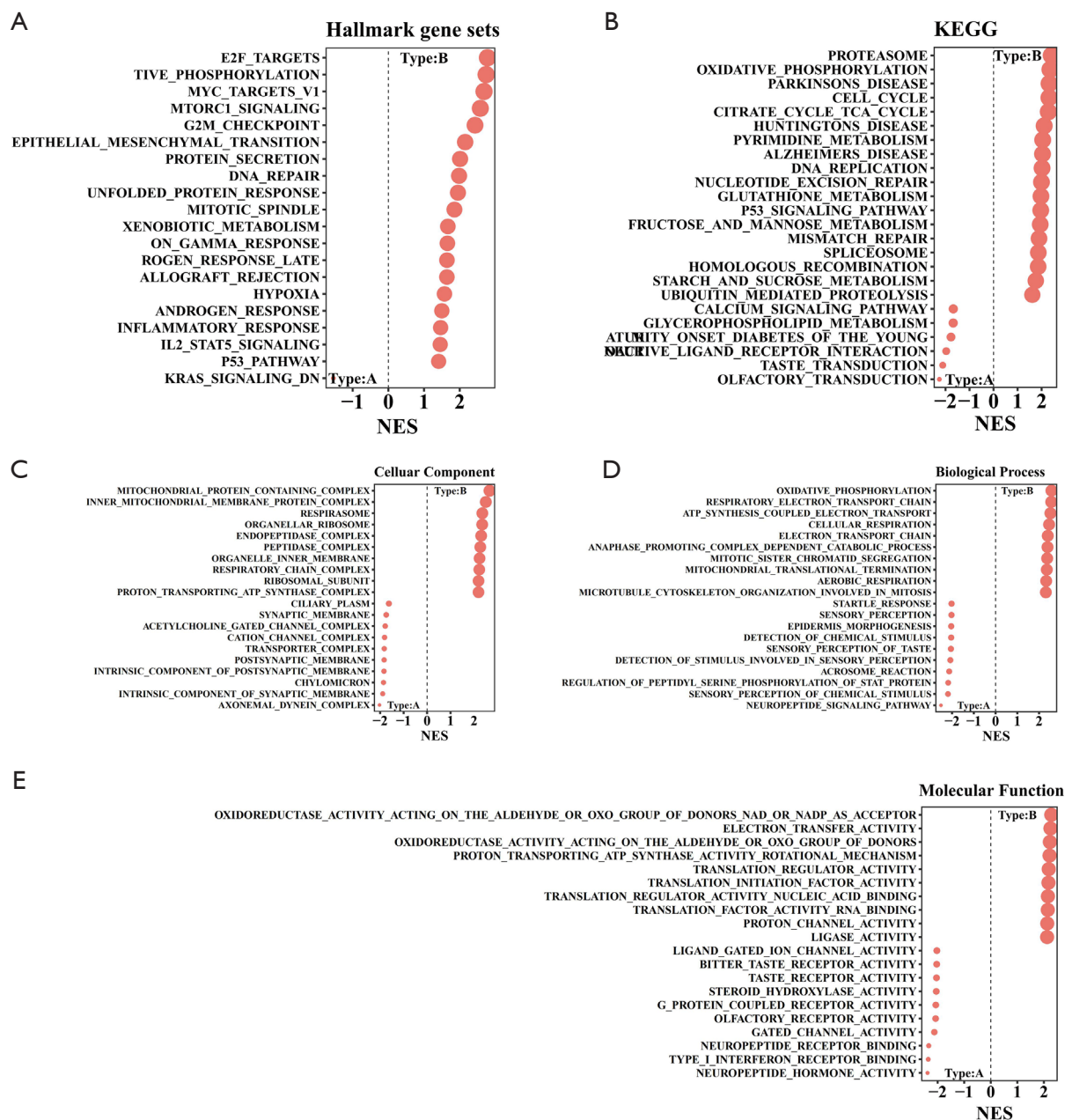


Figure S3 Validation of the biological significance of pN2-A/B molecular types in the GSE68465 dataset. (A) Hallmark, (B) KEGG analyses of signaling pathways. (C) GO-Cellular Component, (D) GO-Biological Process, and GO-Molecular Function (E) analyses were performed to assess biological enrichment in the pN2-A/B types by GSEA.

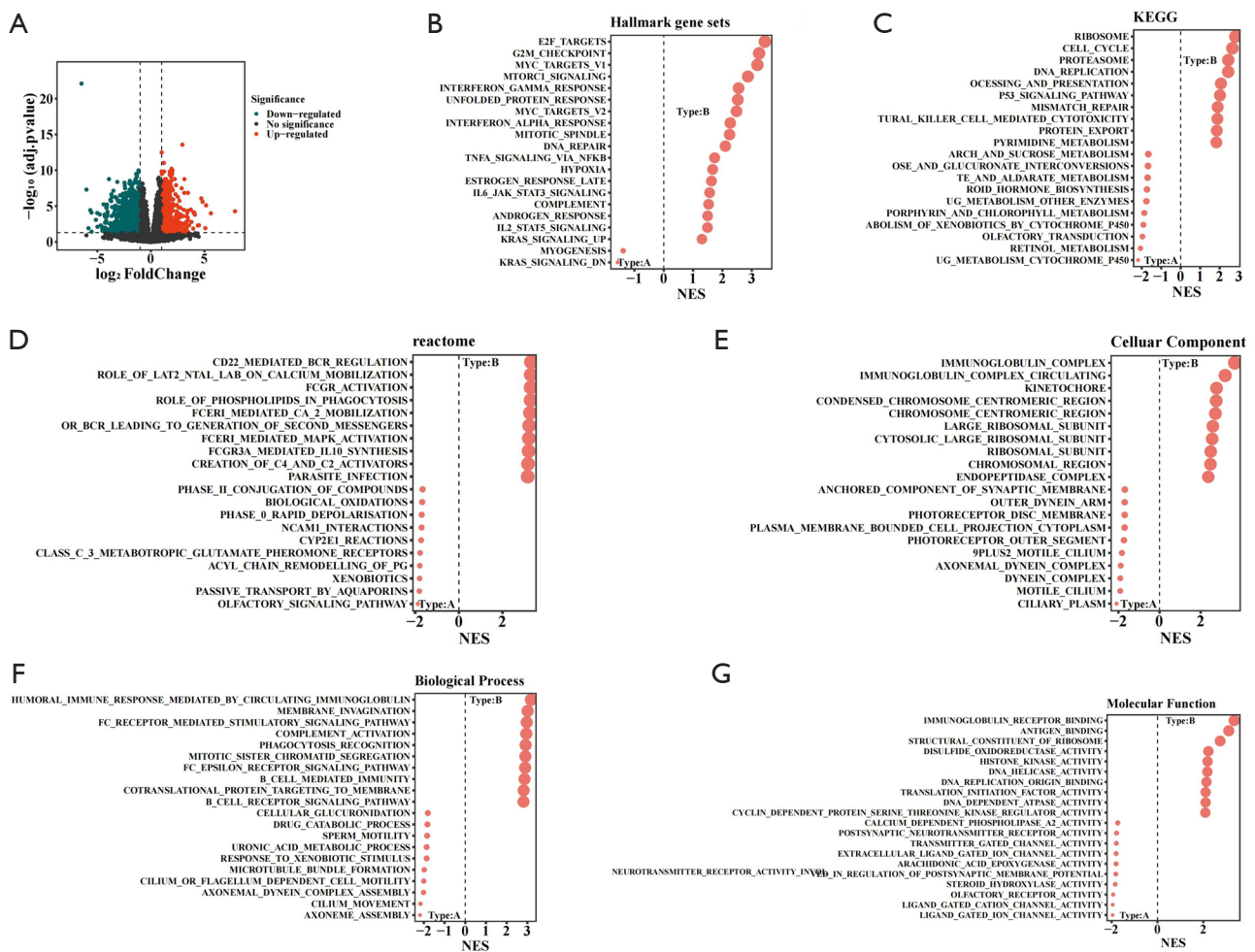


Figure S4 The biological significance of the pN2-A/B molecular types in our dataset. (A) Volcano plot showing gene expression differences between the pN2-B and pN2-A groups. (B) Hallmark and KEGG Pathway (C) analyses were performed to assess the biological enrichment in the pN2-A/B types. (D) Reactome Pathway Database analysis was conducted to assess biological enrichment in the pN2-A/B types by GSEA. (E) GO-Cellular Component, GO-Biological Process (F), and GO-Molecular Function (G) analyses were carried out to assess biological enrichment in the pN2-A/B types by GSEA.