**Supplementary Figures**

Supplementary Figure 1



**Supplementary Figure 1.** The mRNA level of GRAP2 and the effect of GRAP2 on OS in LUSC. The expression level of GRAP2 in tumor tissues and adjacent normal tissues (unmatched tissues) (A), (matched tissues) (B) in TCGA. (C) Kaplan-Meier estimates the effect of GRAP2 on OS in LUSC.

Supplementary Figure 2



**Supplementary Figure 2.** Kaplan-Meier survival curve analysis for OS in LUAD using GEO dataset GSE37745.

Supplementary Figure 3



**Supplementary Figure 3.** GO term and KEGG pathway analysis of GRAP2 co-expressed genes in LUSC.