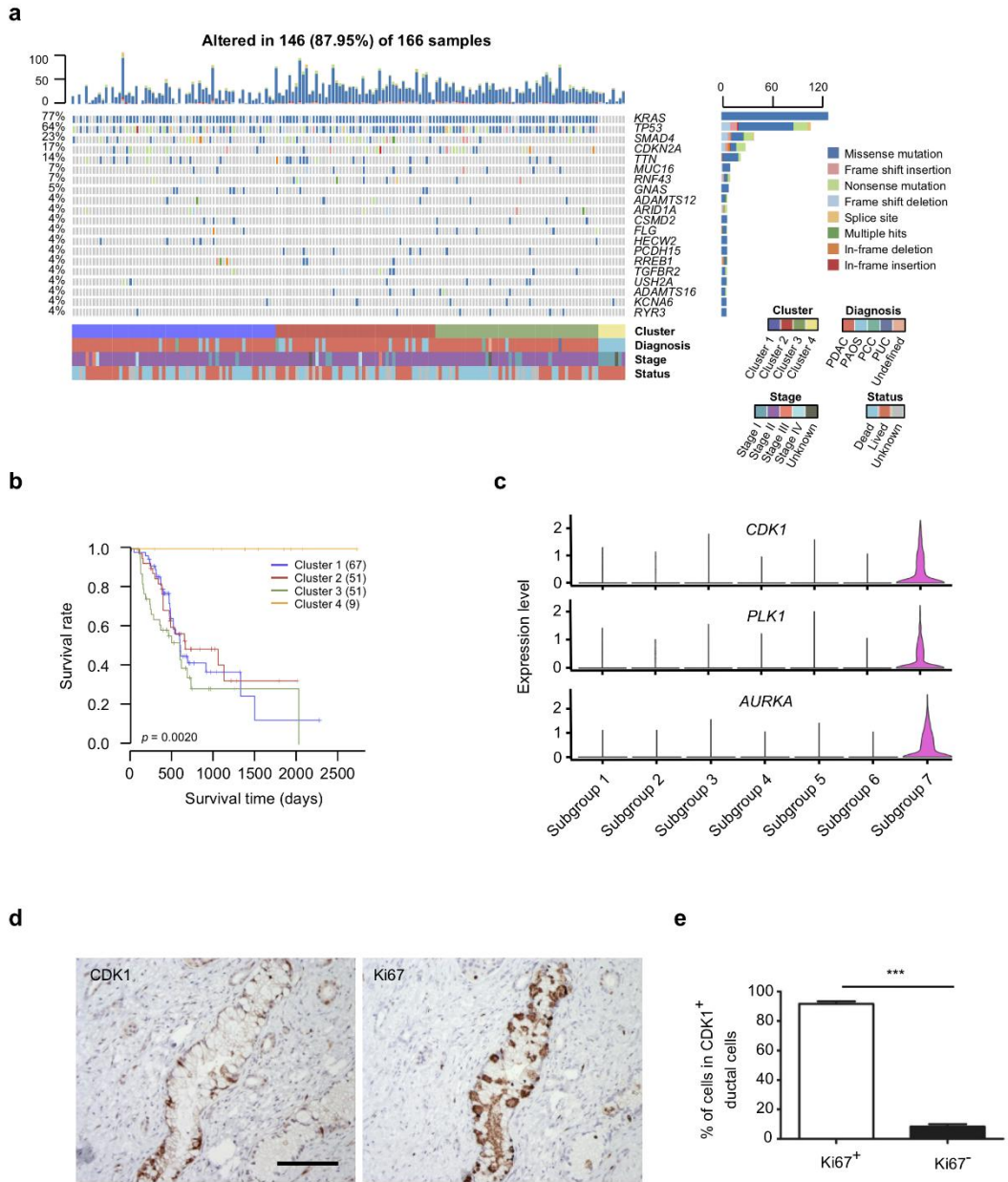


# Supplementary information, Figure S4



**Figure S4. Unbiased Clustering and Survival Analysis of TCGA PAAD Samples Based on Malignant Ductal Markers, Related to Figure 4**

(a) Integrated genomic information for 166 available PAAD samples. Genes were sorted by the mutation rate. Samples were labeled with the groups in Fig. 4a, clinical stage and status.

(b) Kaplan-Meier survival analysis of PAAD samples based on the clusters in Fig. 4a. The sample numbers for each cluster were shown in brackets. Statistical significance was determined by log-rank test.

(c) Violin plots showing the expression level of *CDK1*, *PLK1* and *AURKA* across the subgroups of malignant ductal cells. The y axis shows the normalized read count.

(d) IHC images of representative PDAC tissues from one patient stained for CDK1 and proliferative ductal cell marker (Ki67). Scale bar, 100  $\mu\text{m}$ .

(e) Cells from (d) were assessed and quantified for the presence of CDK1<sup>+</sup>/Ki67<sup>+</sup> or CDK1<sup>+</sup>/Ki67<sup>-</sup> ductal cells. Three independent experiments were performed. The *P* value was calculated using Student's *t*-test. Error bars indicate the standard deviation. \*\*\* represents  $P < 0.001$ .