

Figure S1. Cell viability analysis of BEAS-2B cells treated with different concentrations (0-120 μ M) of CVB-D for 24, 48 and 72 h. CVB-D, cyclovirobuxine D.

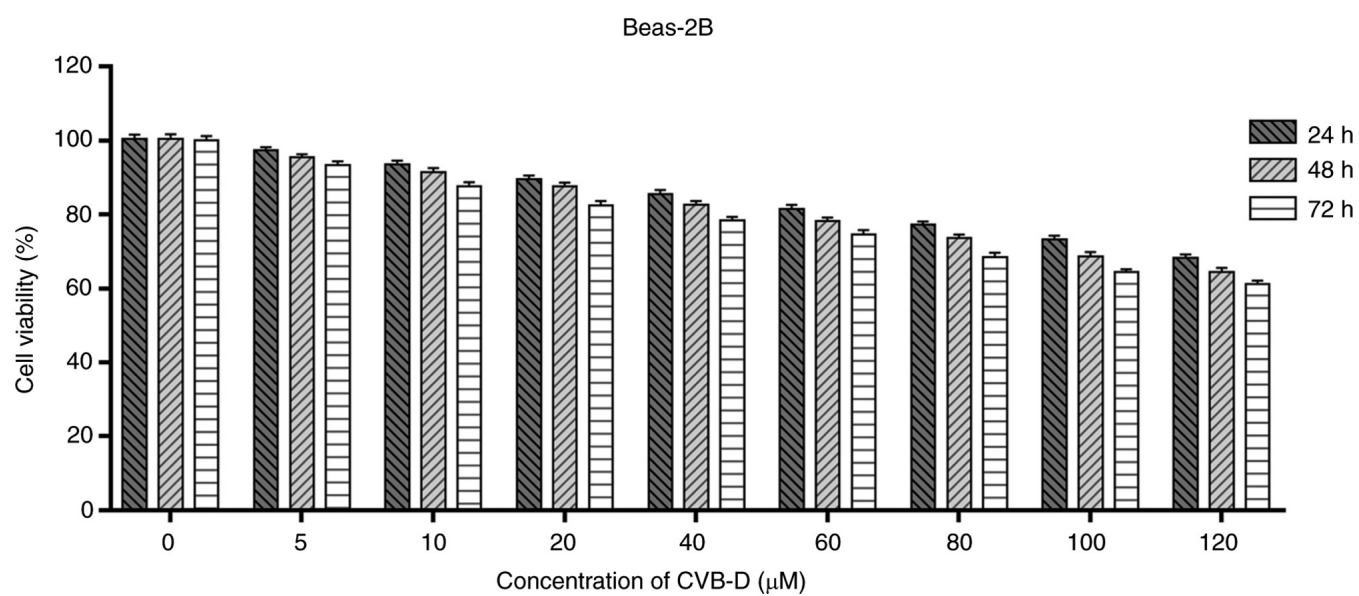


Figure S2. Western blot analysis shows expression levels of cyclinB1 in the control and CVB-D-treated non-small cell lung cancer cells. The corresponding statistical data is shown in (A) and (B). * $P < 0.05$ and ** $P < 0.01$ vs. control. CVB-D, cyclovirobuxine D.

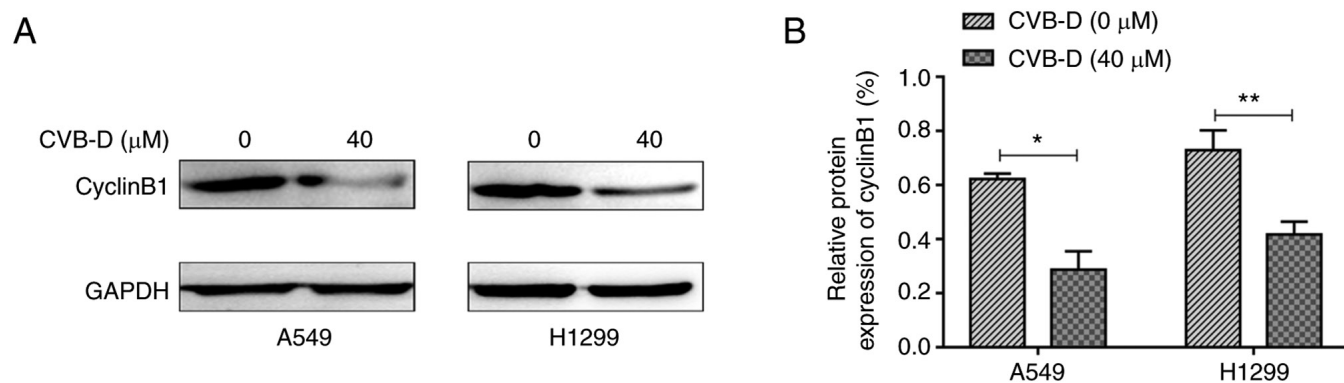


Figure S3. Expression levels of 10 DEGs in the LUAD (purple) and adjacent normal lung tissues (green). *P<0.05. DEGs, differentially expressed genes; LUAD, lung adenocarcinoma.

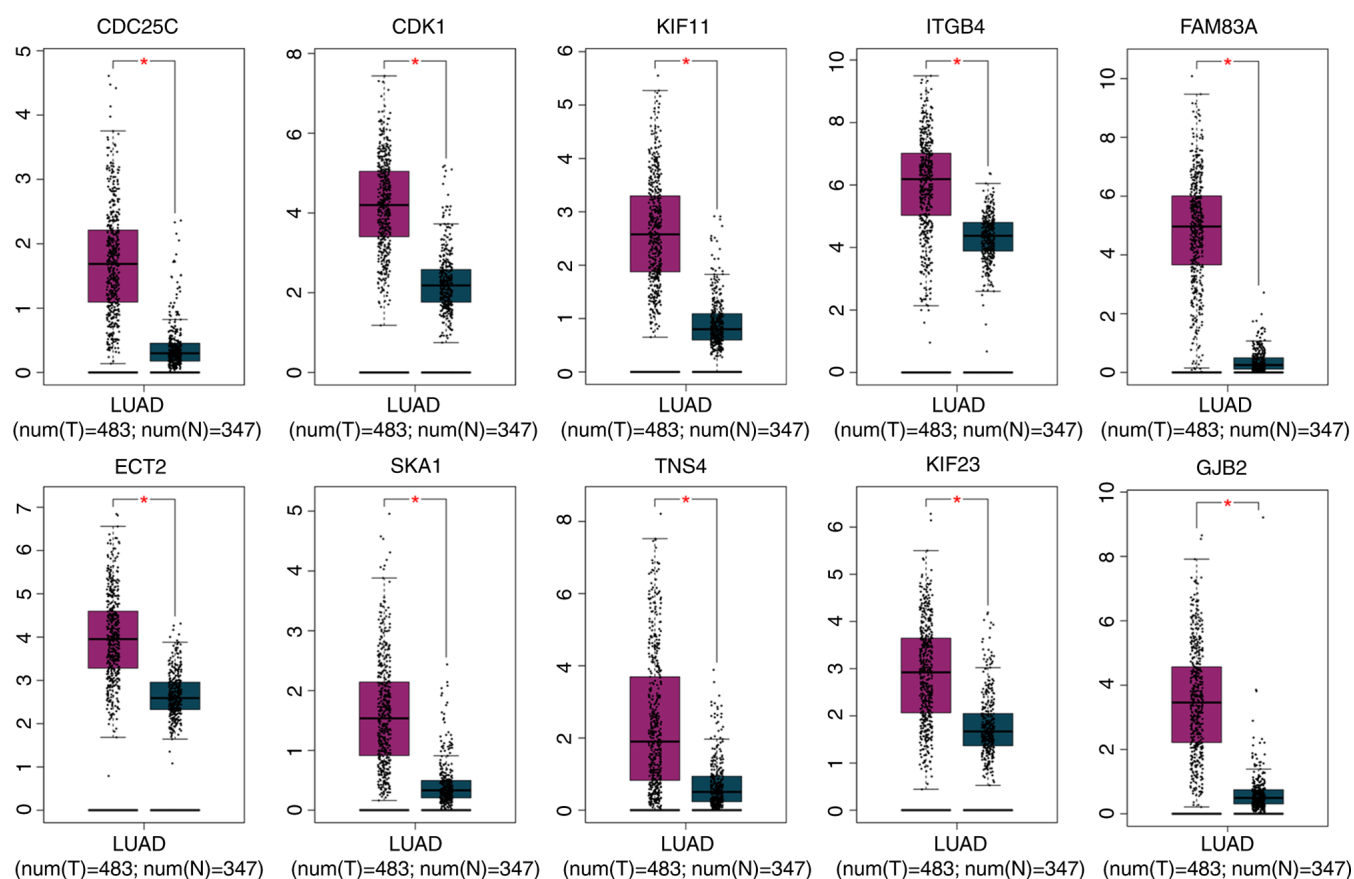


Figure S4. Correlation analysis between expression levels of 10 DEGs and the overall survival rates of patients with LUAD. DEGs, differentially expressed genes; LUAD, lung adenocarcinoma.

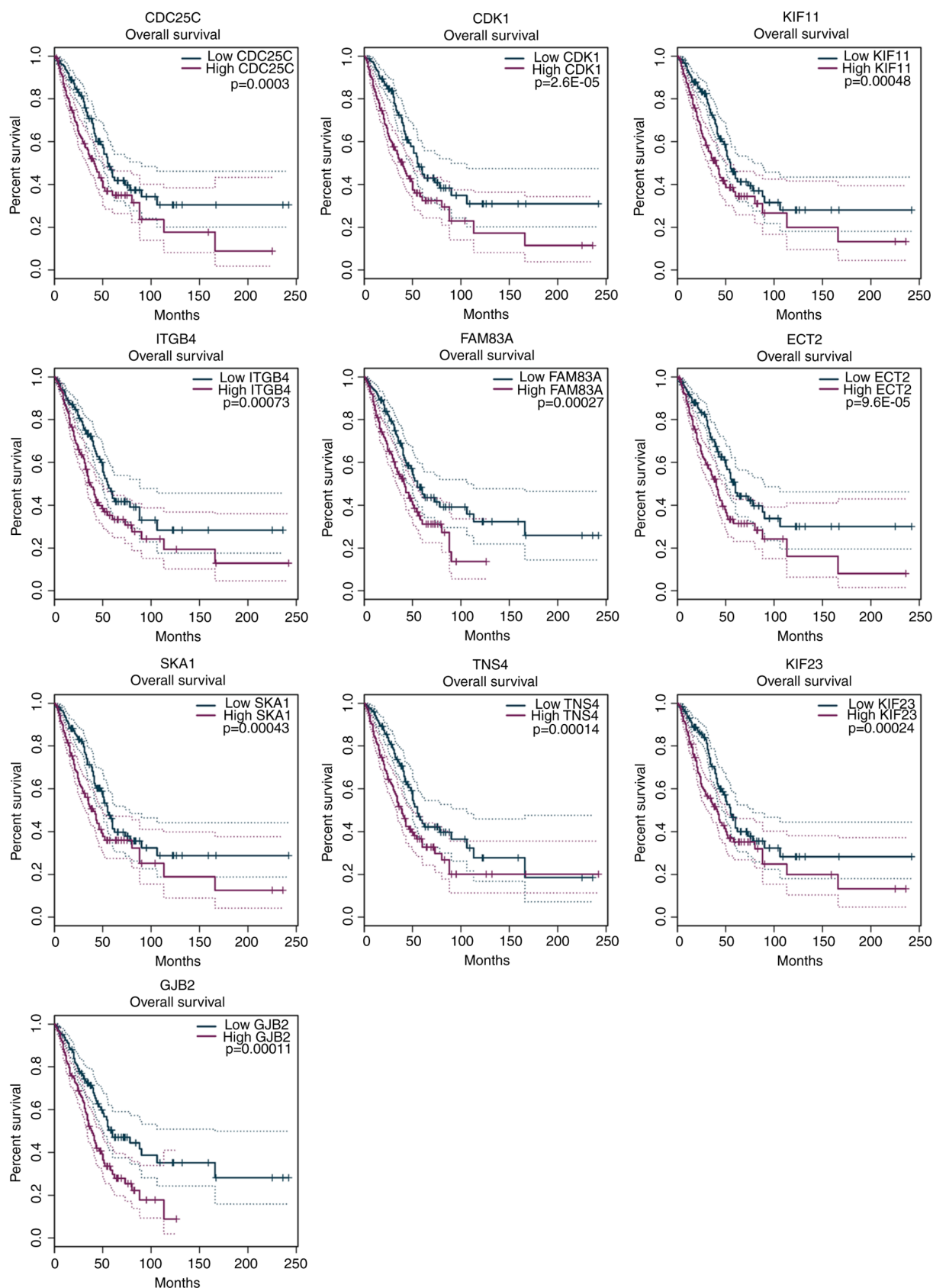


Figure S5. Correlations analysis between expression levels of the 10 DEGs and the disease-free survival rates of patients with LUAD. DEGs, differentially expressed genes; LUAD, lung adenocarcinoma.

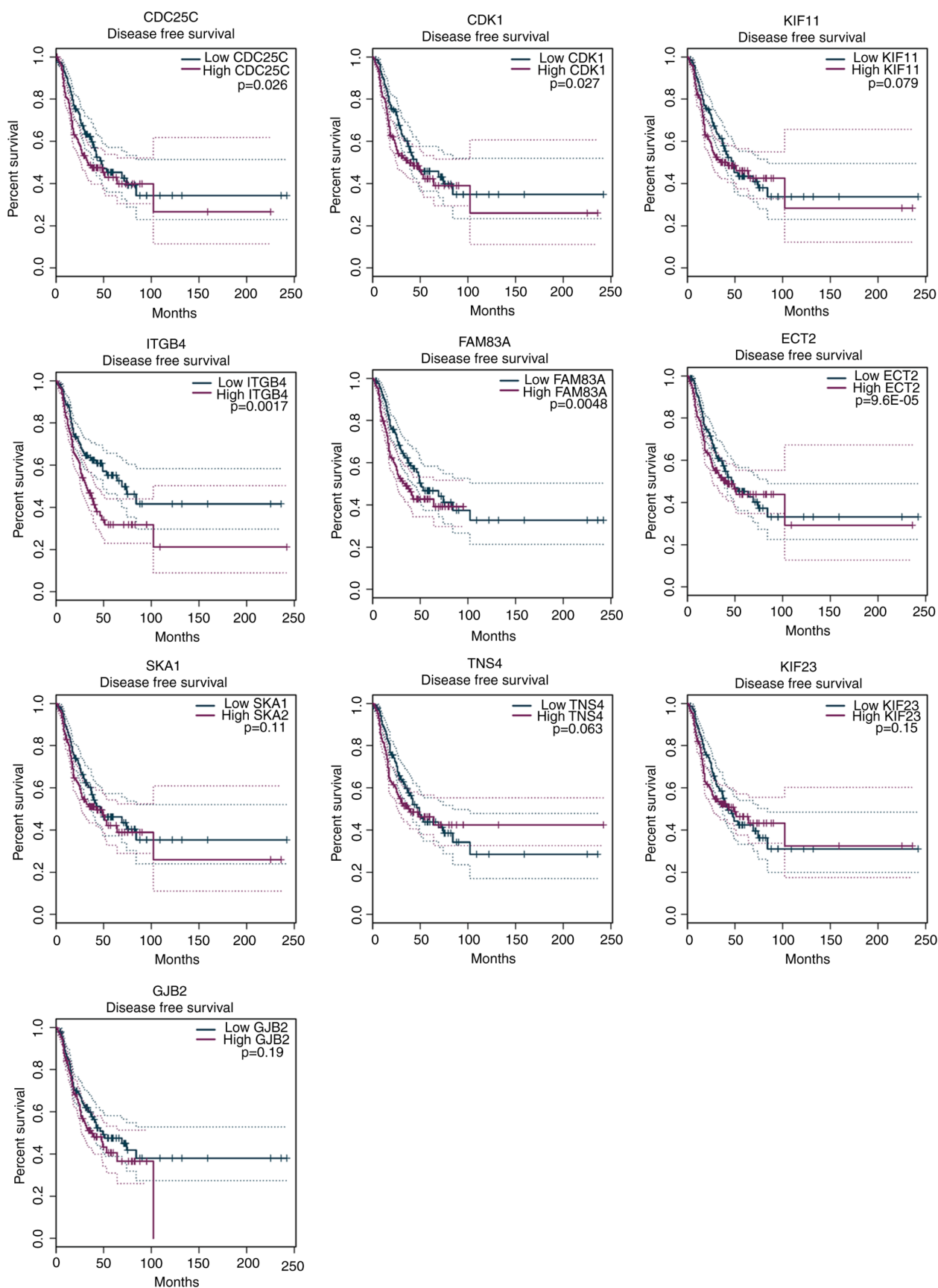


Figure S6. Correlation analysis between KIF11, CDK1 and CDC25C in the lung cancer tissues. KIF11, kinesin family member 11.

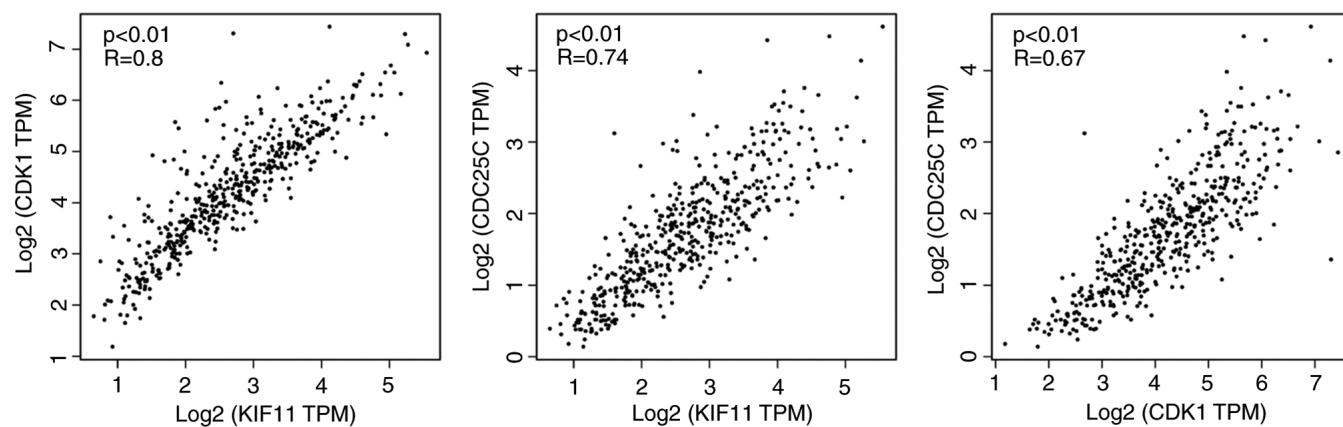


Figure S7. Correlation analysis between expression levels of KIF11, ECT2 and SKA1 and expression levels of KIF23, and CDK1, CDC25C and cyclinB1 in the lung cancer tissues. (A) Correlation analysis between CDK1 expression levels and KIF11, ECT2, SKA1 and KIF23 expression levels in the lung cancer tissues. (B) Correlation analysis between CDC25C expression and the levels of KIF11, ECT2, SKA1 and KIF23 expression in the lung cancer tissues. (C) Correlation analysis between cyclinB1 expression levels and KIF11, ECT2, SKA1 and KIF23 expression levels in the lung cancer tissues. KIF11, kinesin family member 11.

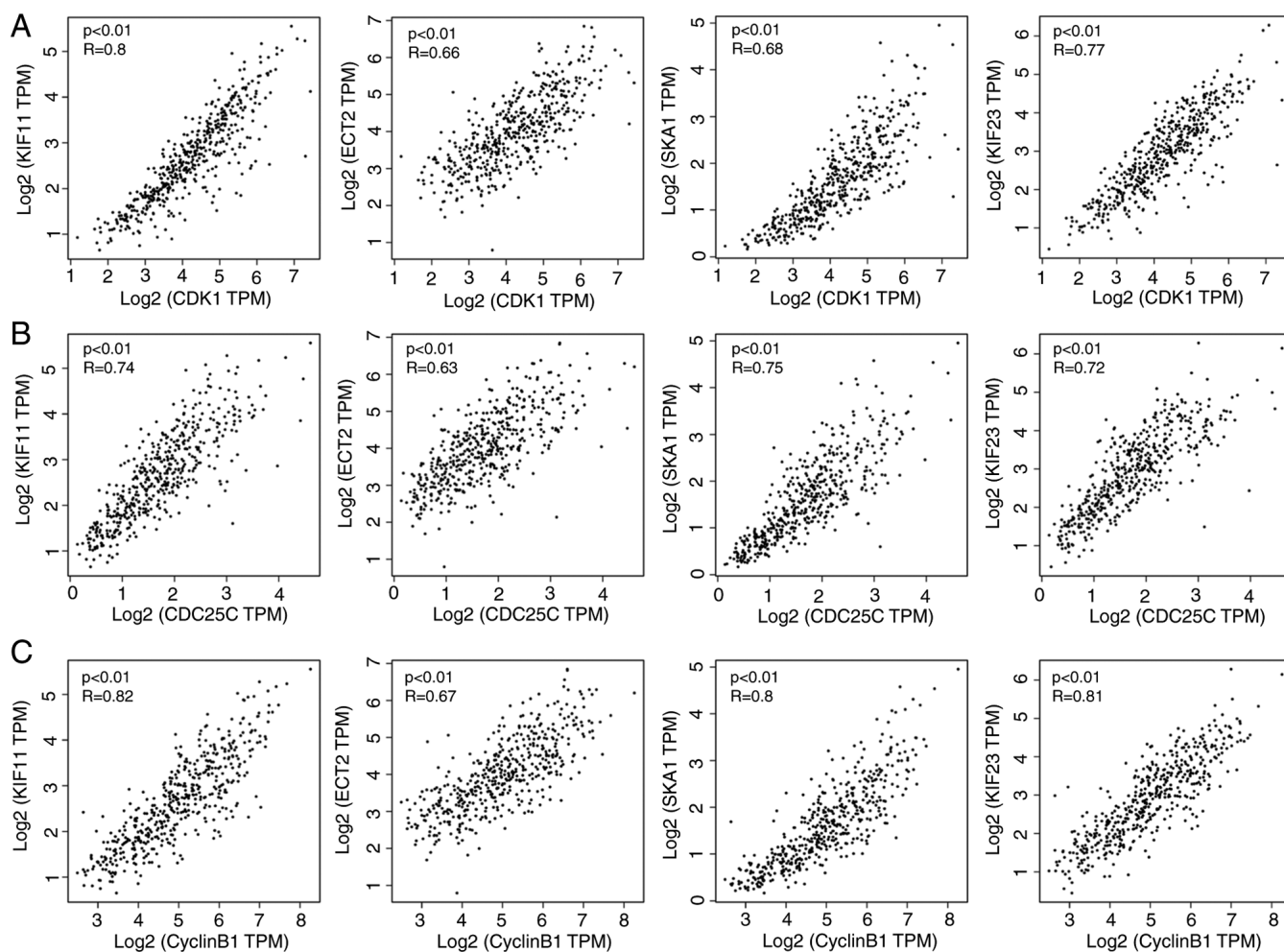


Figure S8. Correlation analysis between expression levels of Bax, Bcl-2, PCNA, E-Cadherin, N-Cadherin, Slug and Snail and the expression levels of KIF11, ECT2, SKA1 and KIF23 in the lung cancer tissues. PCNA, proliferating cell nuclear antigen; KIF11, kinesin family member 11.

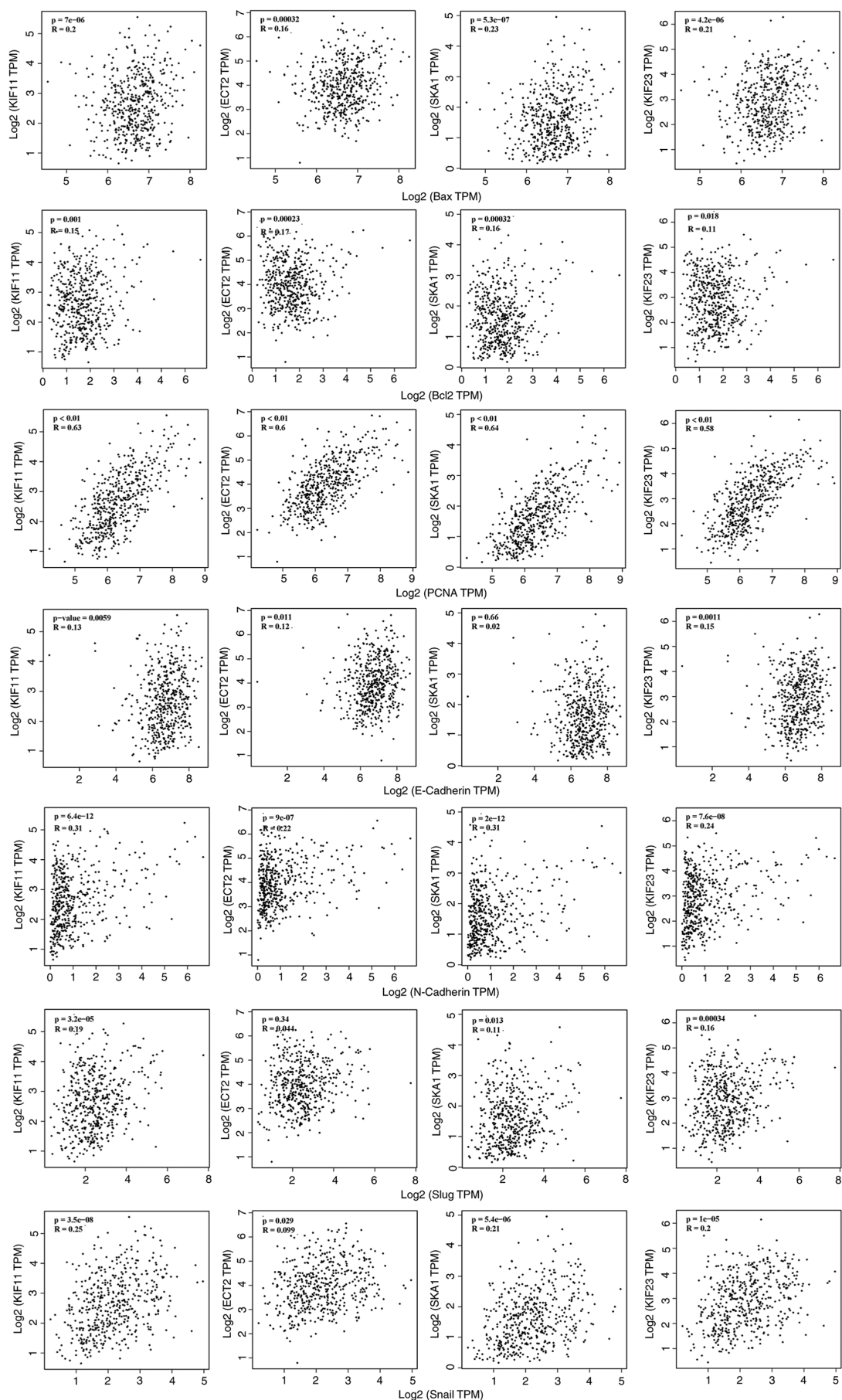


Figure S9. Bioinformatics analysis of KIF11. (A and B) The expression levels of (A) KIF11 protein (HPA database) and (B) KIF11 mRNA (GEPIA 2 database) levels in the LUAD and the adjacent normal lung tissues. (C) The intracellular distribution of KIF11 protein in the human cells (HPA database). (D) The expression levels of KIF11 mRNA in 31 kinds of tumors (GEPIA 2 database). (E) The survival analysis of high and low KIF11 expressing patients with the indicated diseases (GEPIA 2 database). (F) The expression levels of cyclinB1 mRNA in patients with the indicated diseases (GEPIA 2 database). * $P < 0.05$. KIF11, kinesin family member 11; HPA, Human Protein Atlas; LUAD, lung adenocarcinoma.

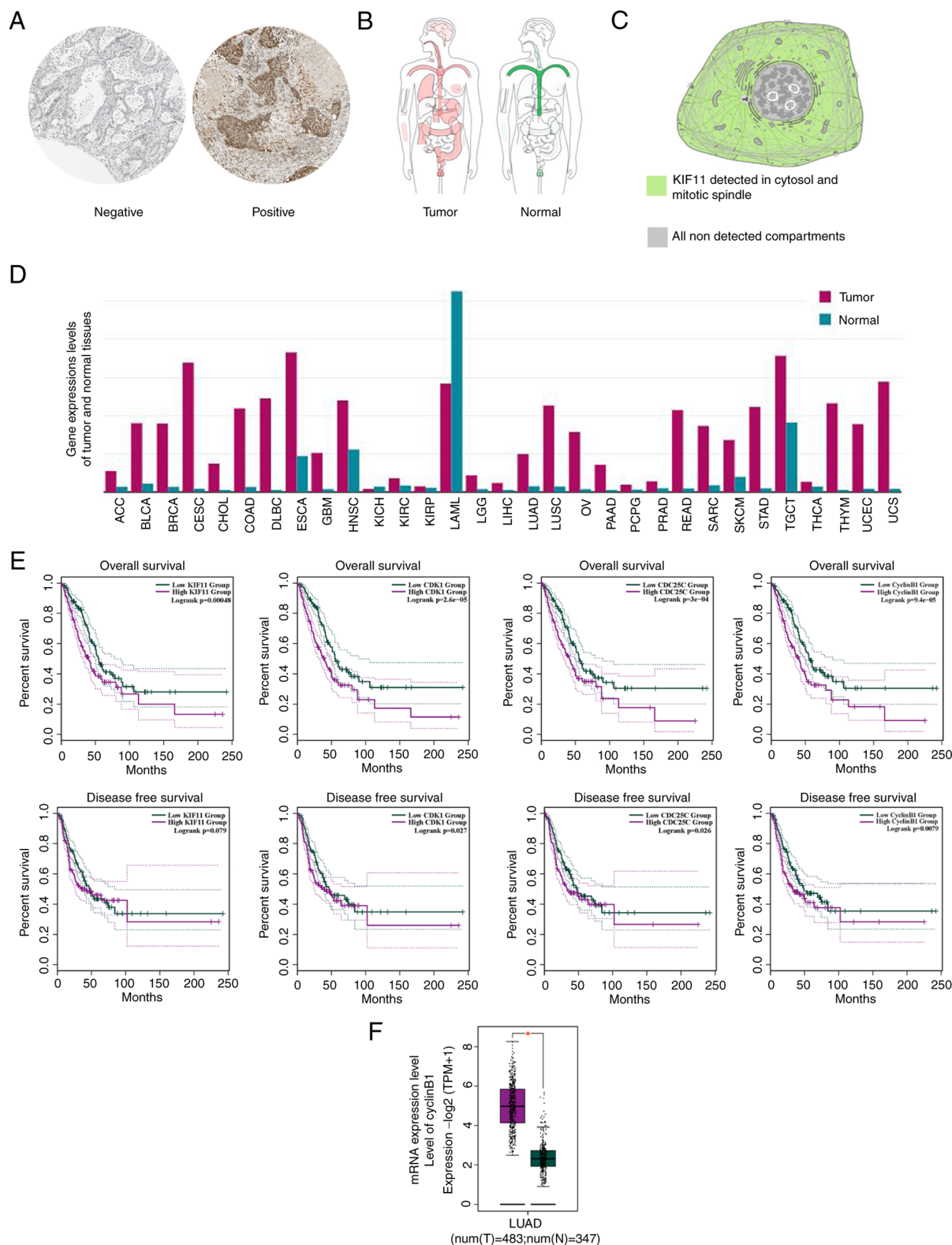


Figure S10. KIF11 is a potential therapeutic target in NSCLC. (A) Western blot assay results showed the expression levels of KIF11, CDK1, CDC25C and cyclinB1 proteins in the control and CVB-D-treated NSCLC cells. (B) Western blot assay results revealed KIF11 protein levels in the control and KIF11-silenced NSCLC cells. (C) Reverse transcription-quantitative PCR results demonstrated the relative KIF11 mRNA levels in the control and KIF11-silenced NSCLC cells. (D) Western blot assay results showed the levels of CDK1, CDC25C, cyclinB1, p-p65 and p-JNK protein levels in the control and KIF11-silenced NSCLC cells. (E) Cell viability of control and KIF11-silenced NSCLC cells with or without CVB-D treatment. * $P < 0.05$ and ** $P < 0.01$ vs. control group. KIF11, kinesin family member 11; NSCLC, non-small cell lung cancer; si-, small interfering; RQ, relative quantity; NC, negative control.

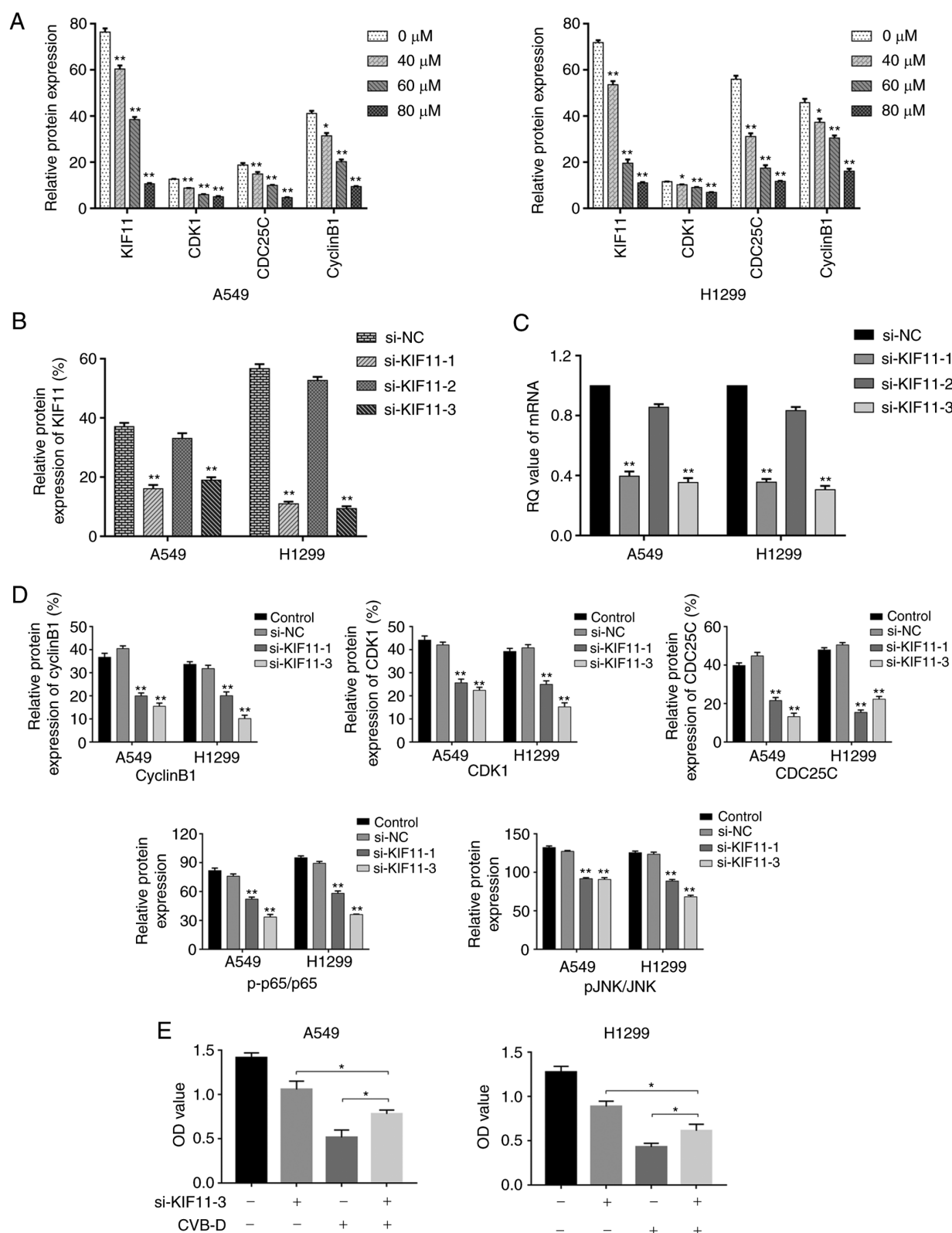


Figure S11. CyclinB1 silencing results. (A and B) Western blot assay results showed the cyclinB1 protein levels in the control and cyclinB1-silenced NSCLC cells. (C and D) Western blot analysis revealed the expression levels of KIF11, CDK1, CDC25C and cyclinB1 proteins in the si-NC- and si-cyclinB1-transfected NSCLC cells. **P<0.01 vs. control group. NSCLC, non-small cell lung cancer; KIF11, kinesin family member 11; si-, small interfering; NC, negative control.

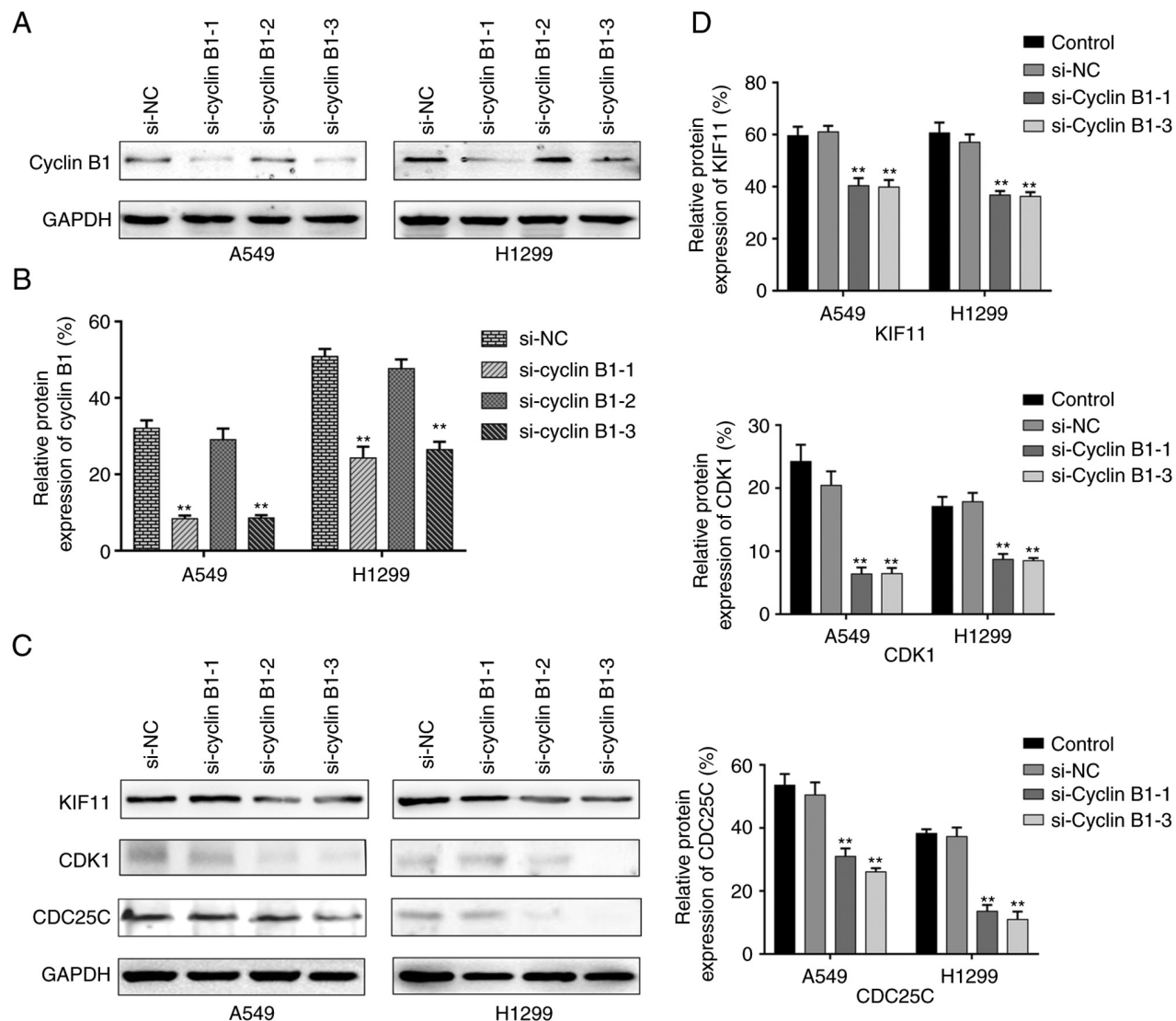


Figure S12. Hematoxylin and eosin staining of the brain, heart, lung, liver, kidney spleen gut, and stomach tissue sections from the control and CVB-D treated xenograft tumor tissues. (magnification, x200; scale bar, 50 μ m). CVB-D, cyclovirobuxine D.

