

Figure S1. PD exhibits minor cytotoxicity against normal human cells. (A) The chemical structure of PD. (B) BEAS-2B, (C) MIHA and (D) HUVEC cells were treated with increasing doses of PD for 72 h, and cell viability was measured by the MTT assay. PD, polydatin; HUVEC, human umbilical vein endothelial cells.

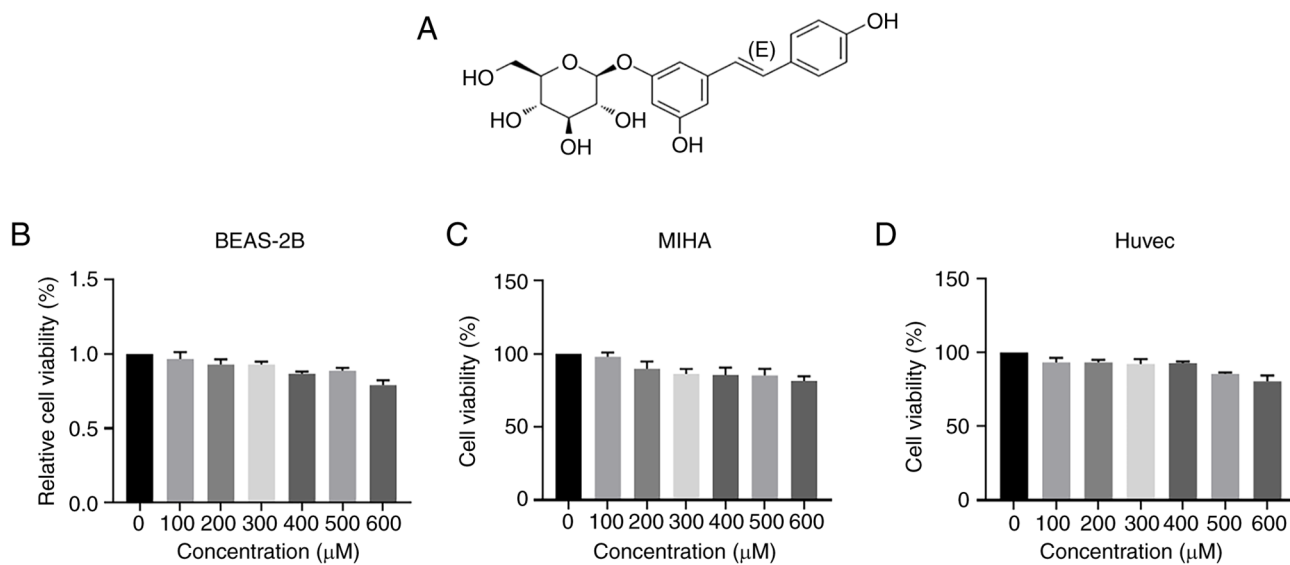


Figure S2. Combined treatment with PD and cisplatin inhibits H1299 cell migration. H1299 cells were scratched using a pipette tip, and then treated with cisplatin, PD or their combination with or without 5 mM NAC pretreatment. Images were obtained at x100 magnification. PD, polydatin; NAC, N-Acetyl-L-Cysteine.

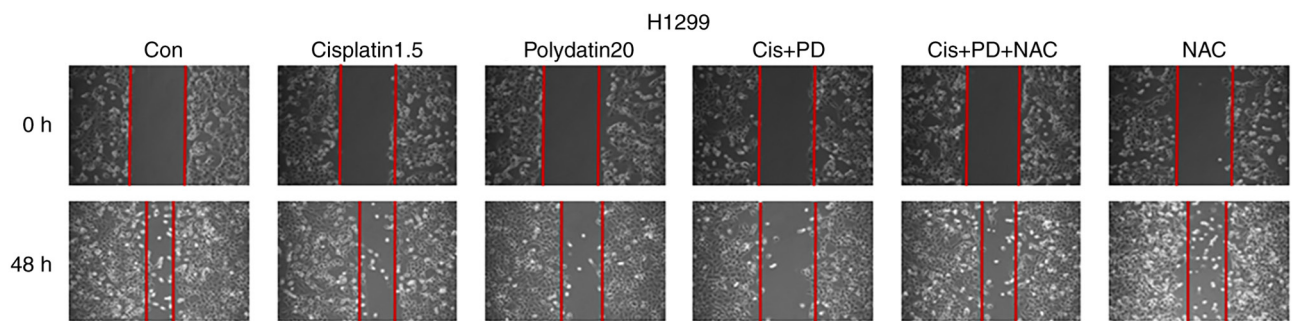


Figure S3. PD combined with carboplatin inhibits cell viability and colony formation in non-small cell lung cancer cells. (A-C) H460 and H1299 cells were treated with carboplatin (10 μ M), PD (500 μ M) or their combination for 48 h, and cell viability was measured by the MTT assay. (D-F) H460 and H1299 cells were treated with different doses of PD (500 μ M for H460 cells and 25 μ M for H1299 cells), carboplatin (2 μ M) or their combination for 48 h. The cells were stained with crystal violet after 7-10 days of treatment. Quantification of colony forming area was conducted by using ImageJ software. ***P<0.001. PD, polydatin.

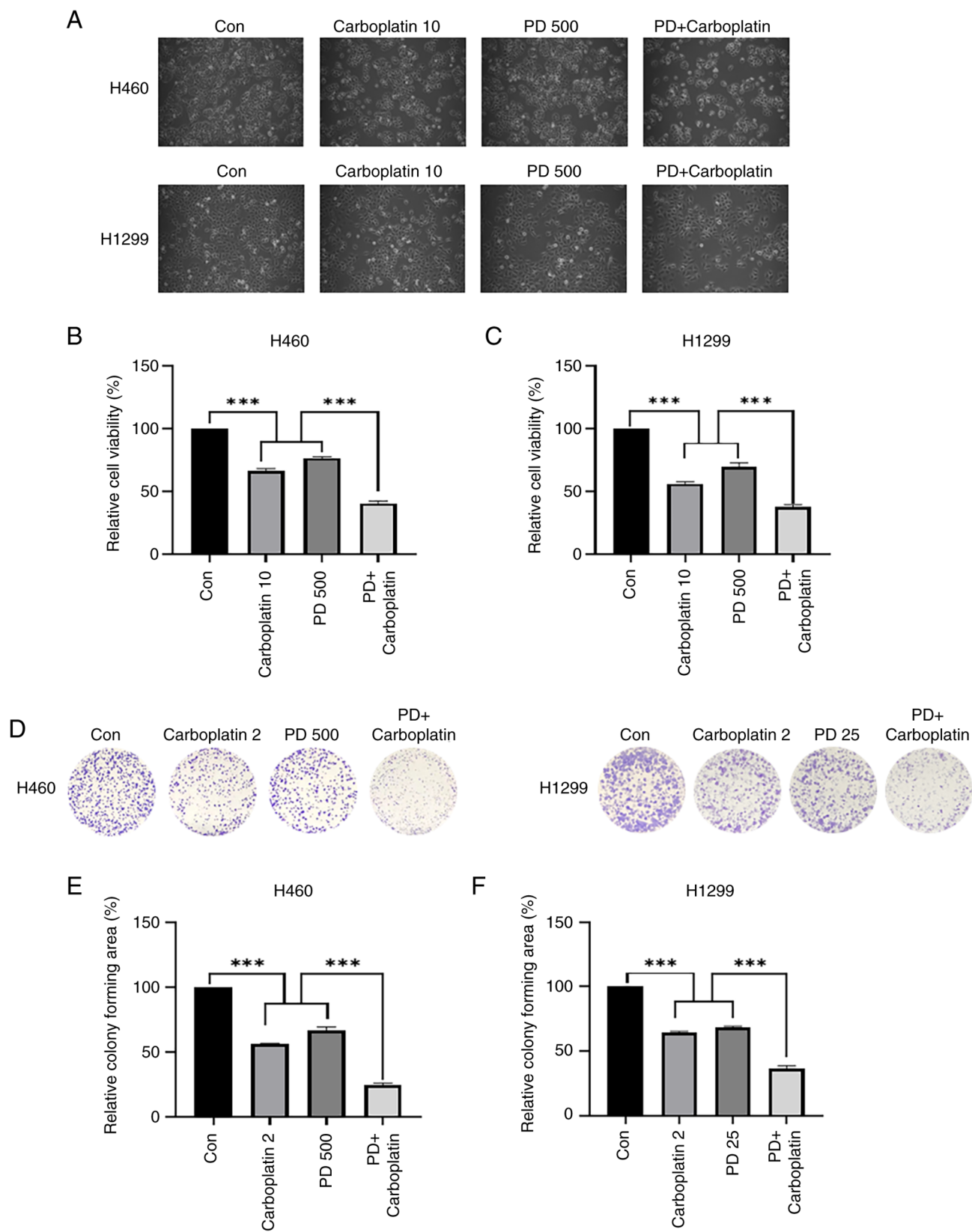


Figure S4. PD increases antitumor activity of cisplatin in mice xenograft models with minor cytotoxicity. (A) Mice harboring H460 tumors were treated with 50 mg/kg PD, 2 mg/kg cisplatin or their combination. (B) Body weights of mice in different groups were measured at the indicated time points. (C) Hematoxylin and eosin staining of heart, lung, liver and kidney tissues from mice treated with 2 mg/kg cisplatin, 50 mg/kg PD or their combination with or without NAC (0.5 g/l) treatment. ** $P < 0.01$ and *** $P < 0.001$. PD, polydatin; NAC, N-Acetyl-L-Cysteine.

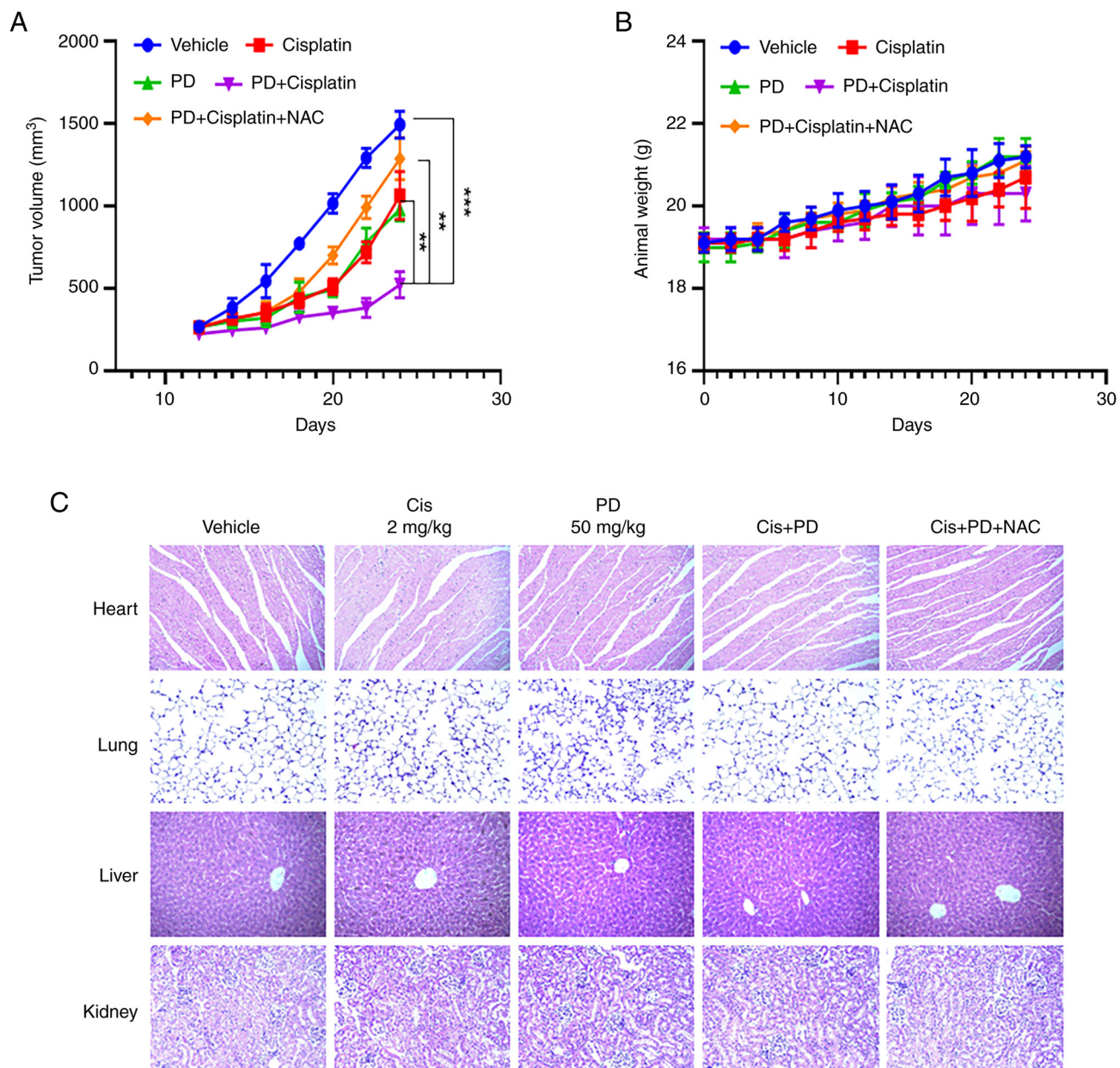


Figure S5. Knockdown of NOX5 attenuates the antitumor activities of PD in non-small cell lung cancer cells. (A and B) MTT assay for (A) H1299 and (B) H460 cells after treatment with PD (500 μ M), siNOX5 or their combination for 72 h. Images were obtained at x100 magnification. (C and D) Representative images of colony formation assay for (C) H1299 and (D) H460 cells after treatment with PD (25 μ M for H1299 cells and 500 μ M for H460 cells), siNOX5 or their combination for 72 h. After 8-10 days, the colonies were stained by crystal violet dye (blue). NOX5, NADPH oxidase 5; PD, polydatin; si-, small interfering; NC, negative control.

