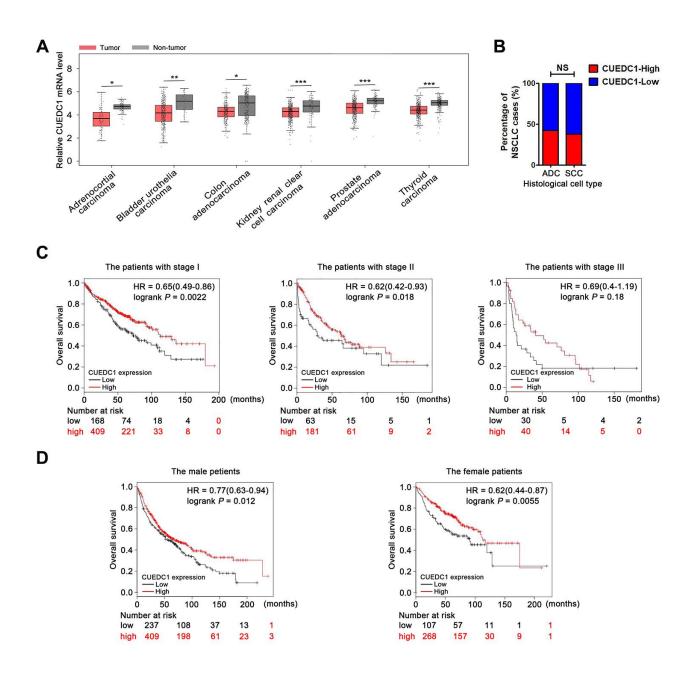
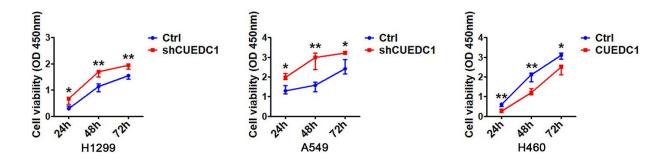
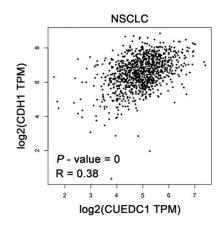
## SUPPLEMENTARY FIGURES



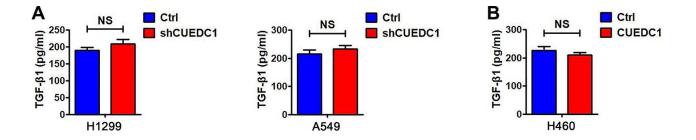
Supplementary Figure 1. CUEDC1 expression in tumor tissues is lower than that in normal tissues and predicts good patient prognosis. (A) GEPIA show CUEDC1 expression levels in different carcinomas. (B) IHC analysis showed that 42% of patients with adenocarcinoma had high CUEDC1 expression, whereas 38% of patients with Squamous cell carcinoma had high CUEDC1 expression. *P* values were calculated using the  $\chi^2$  test. (C, D) Correlation between CUEDC1 expression and clinical outcomes. A Kaplan–Meier plot analysis showed overall survival of lung cancer patients in different clinical stages (C) and lung cancer patients in different gender (D) depending on CUEDC1 expression. *P* values were calculated using a log-rank test.



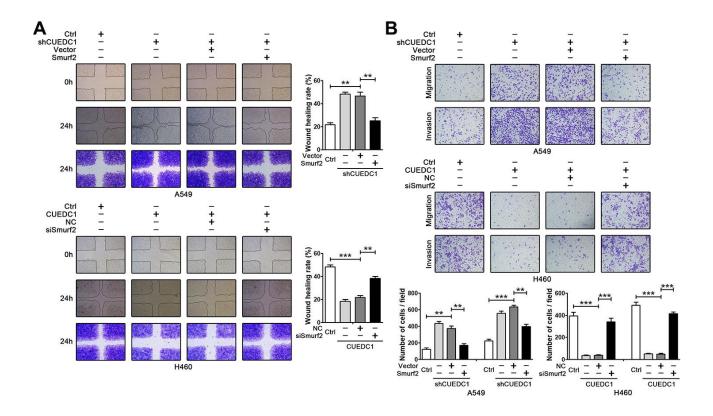
**Supplementary Figure 2. CUEDC1 inhibits NSCLC cell proliferation.** CCK-8 assays were performed in H1299 and A549 cells silenced for CUEDC1 and performed in H460 cells overexpressing CUEDC1. *P* values were calculated using Student's *t*-test. The data are expressed as the mean  $\pm$  SEM; \**P* < 0.05; \*\**P* < 0.01; \*\*\**P* < 0.001.



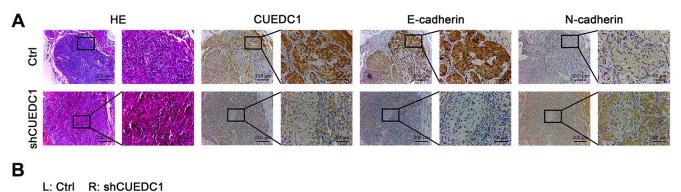
**Supplementary Figure 3. CUEDC1 expression positively correlated with E-cadherin.** The correlation between expression of CUEDC1 and E-cadherin in NSCLC samples using TCGA database.

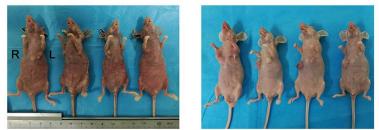


Supplementary Figure 4. CUEDC1 had no effect on the secretion of TGF- $\beta$ 1 in NSCLC cells. (A, B) Levels of TGF- $\beta$ 1 in culture medium of H1299/shRNA-CUEDC1 cells, A549/shRNA-CUEDC1 cells (A), and H460/CUEDC1 cells (B), and corresponding control cells (vector control). *P* values were calculated using Student's *t*-test; \**P* < 0.05; \*\**P* < 0.01; \*\*\**P* < 0.001.



Supplementary Figure 5. CUEDC1 inhibits metastasis in a Smurf2-dependent manner. (A, B) After Smurf2 overexpression or knockdown, migration and invasion of A549 and H460 cells were measured using wound-healing assays (A) or transwell assays (B). The data are expressed as the mean  $\pm$  SEM. *P* values were calculated using Student's *t*-test; \**P* < 0.05; \*\**P* < 0.01; \*\*\**P* < 0.001.





**Supplementary Figure 6. Deletion of CUEDC1 promotes the growth of tumors and the EMT process.** (A) The expression of EMT markers was determined by immunohistochemical staining in xenograft tumor of mice (magnification, ×100 and ×400). (B) CUEDC1 downregulation results in increased cell proliferation of NSCLC cells *in vivo*. Images of the tumor on mice.