

Figure S1. Crizotinib IC₅₀ values for various cancer cell lines in Pharmacogenomics datasets of the Cancer Cell Line Encyclopedia (CCLE) project [27]. Crizotinib IC₅₀ values for 13 NSCLC cell lines detected in the present study were also displayed in the inserted chart. Red-star and red-arrow, 10 cell lines tested in both the CCLE and present studies

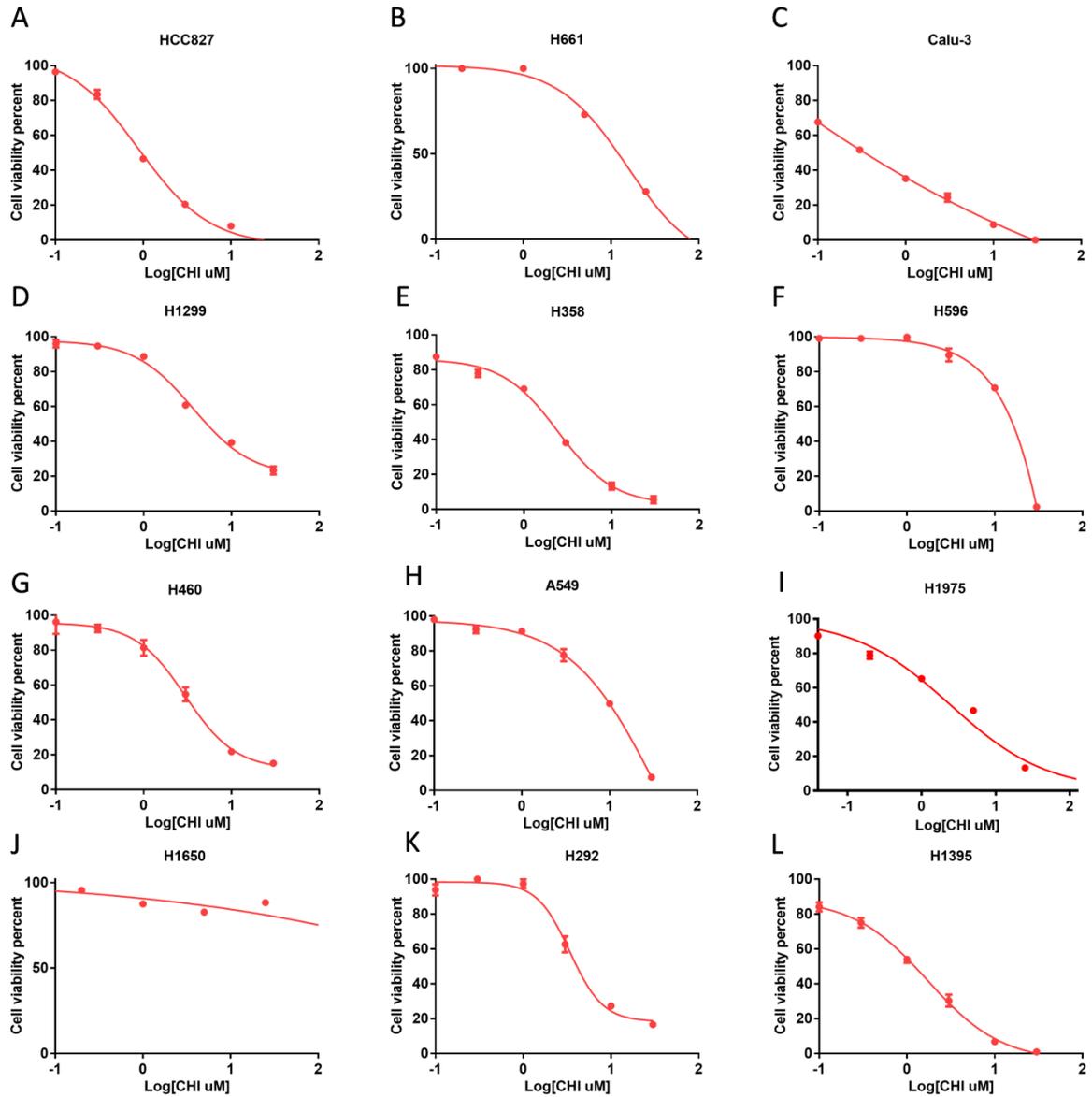
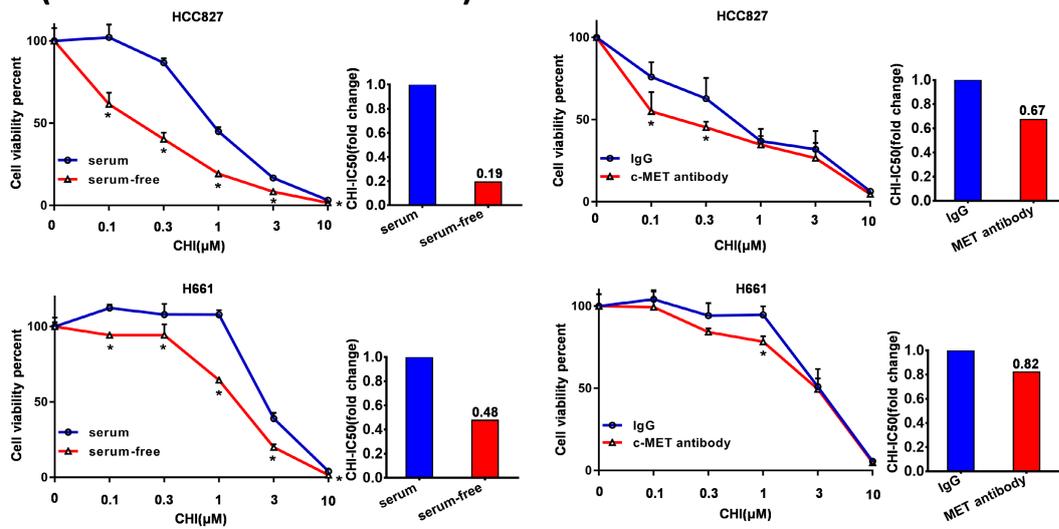


Figure S2. Cell viability curves of 12 NSCLC cell lines treated with chidamide (CHI) at various concentrations for 72 hr. (A) HCC827; (B) H661; (C) Calu-3; (D) H1299; (E) H358; (F) H596; (G) H460; (H) A549; (I) H1975; (J) H1650; (K) H292; (L) H1395.

A (with chidamide treatment)



B (without chidamide treatment)

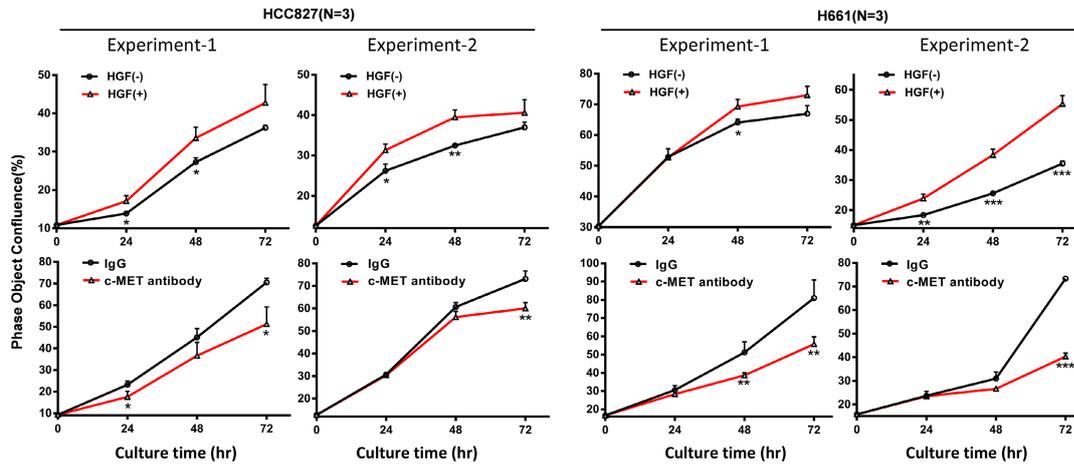


Figure S3. Effect of loss of function of *c-MET* by antibody (2.5 $\mu\text{g}/\text{mL}$) against *c-MET* or HGF-deprivation (serum-free) on the proliferation/viability of HCC827 and H661 cells treated with and without various concentrations of chidamide (CHI). The experimental conditions were the same as described in Figure 4 legend. **(A)** With chidamide treatment; The fold change of chidamide IC50 for cells treated with *c-MET* antibody or cultured in serum-free medium (HGF-deprivation) relative to cells treated with IgG control or cultured in serum-containing medium was labeled in right chart, respectively. **(B)** Without chidamide treatment. The results of two repeat experiments were illustrated. HGF(-), HGF-deprivation (serum-free); HGF(+), serum-free medium with HGF supplement; */**/***, $P < 0.05/0.01/0.001$

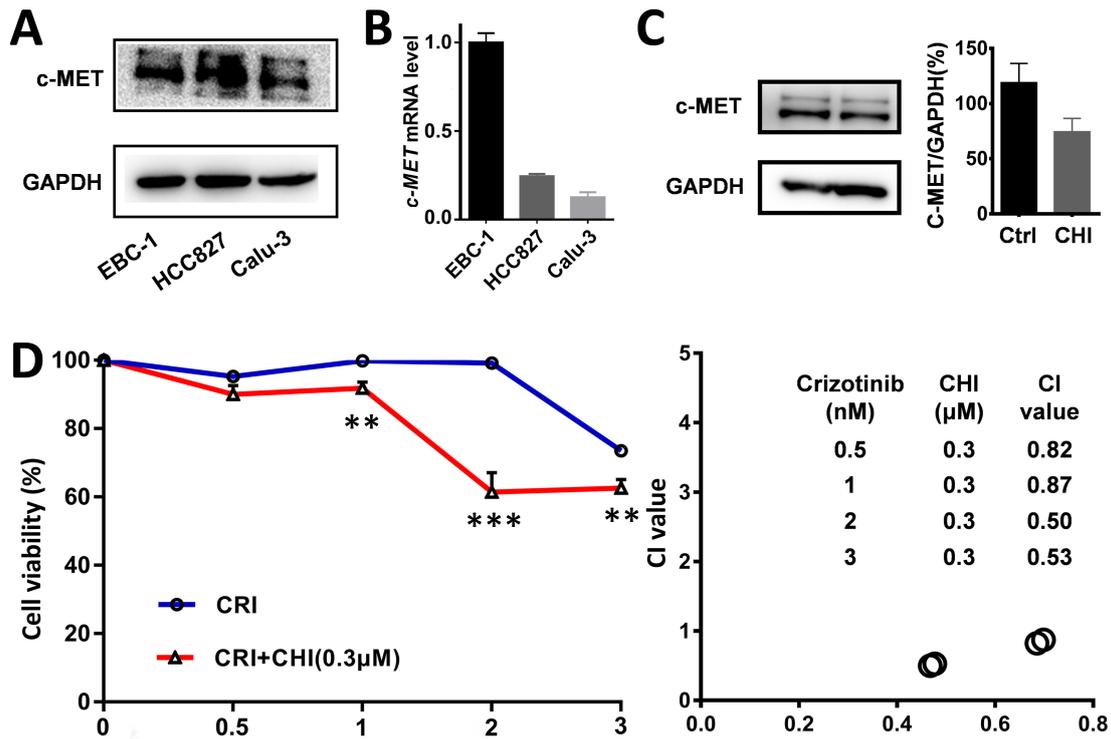


Figure S4. Synergistic effect of chidamide-crizotinib in NSCLC cell line EBC-1 with *c-MET* gene amplification. (**A** and **B**) The levels of baseline c-MET protein and mRNA in EBC-1 and other cell lines in Western blot and quantitative RT-PCR analyses, respectively. (**C**) The level of c-MET protein in EBC-1 cells with treatment of chidamide (CHI, at 1/4 IC₅₀ [0.3μM]) for 72 hr in Western blotting. (**D**) Cell viability was measured by using the IncuCyte platform (left chart). The crizotinib-IC₅₀ values for EBC-1 cells were calculated in the absence or presence of chidamide. The synergetic effect of chidamide-crizotinib cotreatment on cell proliferation inhibition was calculated using the CI equation and presented as Fa (fraction affected by the dose) in the Fa–CI plots (right chart); */**/***, P <0.05/0.01/0.001

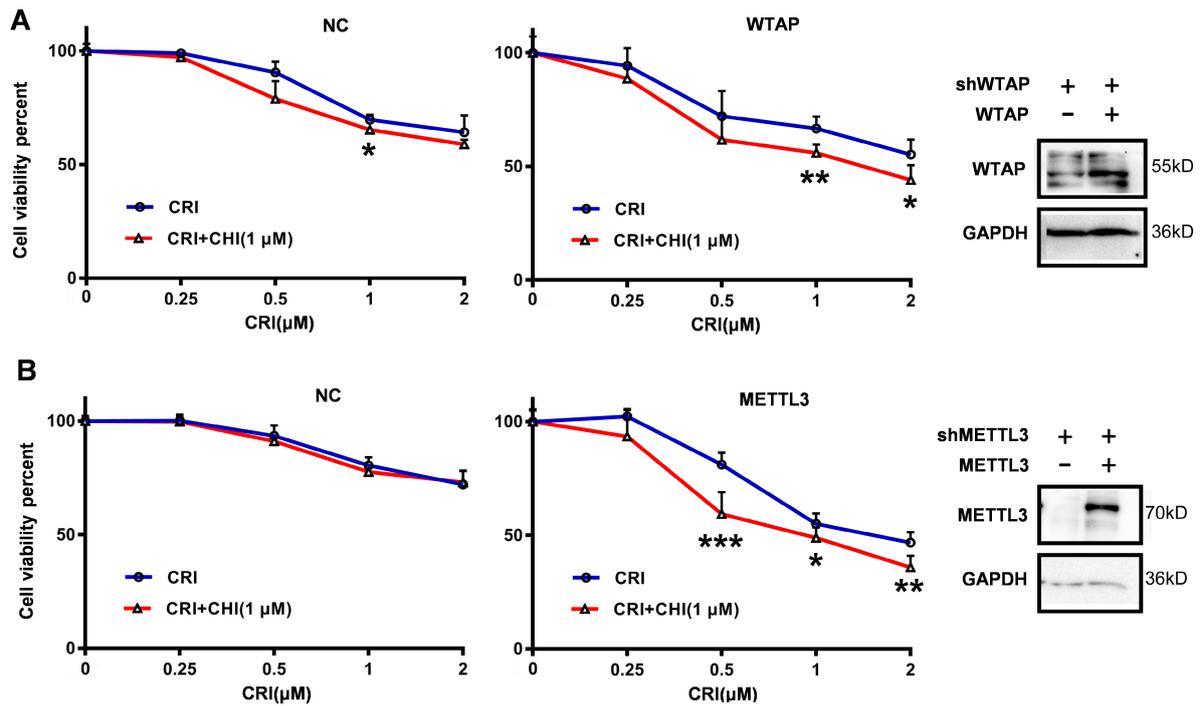


Figure S5. Effect of *WTAP* or *METTL3* overexpression on the synergistic effect of chidamide-crizotinib in H661 cells with sh*WTAP* or sh*METTL3* transfection in the rescue assays. **(A)** *WTAP* overexpression in cells with stable *WTAP* knockdown by shRNA transfection. **(B)** *METTL3* overexpression in cells with stable *METTL3* knockdown by shRNA transfection. The results of Western blotting were inserted in the right side to monitor changes of the amounts of *WTAP* or *METTL3* proteins in these cells. */**/***, $P < 0.05/0.01/0.001$

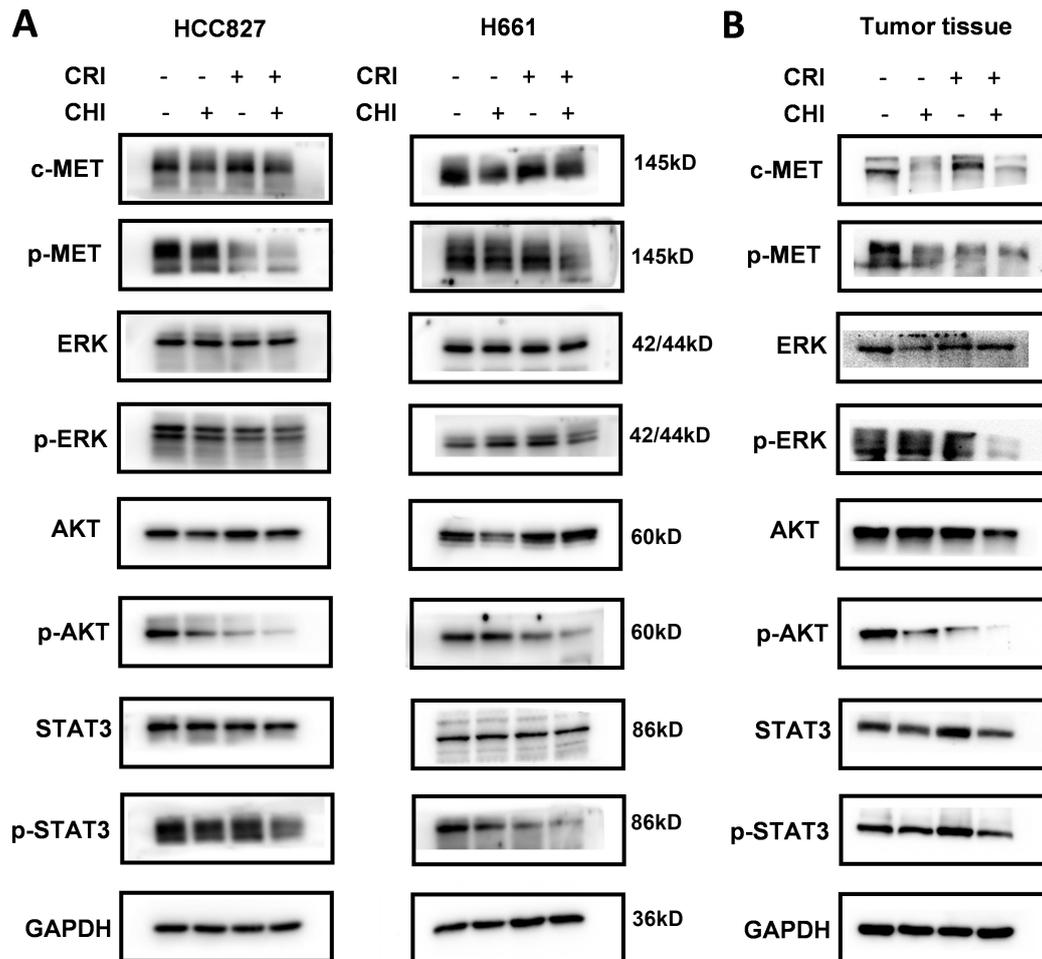


Figure S6. Effects of treatment with chidamide (CHI), crizotinib (CRI), or their combination on the phosphorylation levels of the receptor tyrosine kinase (RTK) signaling molecules c-MET, ERK, AKT and STAT3 proteins in NSCLC cells via Western blotting. **(A)** The NSCLC cell lines HCC827 and H661 treated with chidamide (0.25 μ M for HCC827 and 1 μ M for H661), crizotinib (1 μ M), or their combination for 4 hr. **(B)** HCC827-derived tumors in mice treated with chidamide (5 mg/kg/d), crizotinib (25 mg/kg/d), or their combination for 21 days.

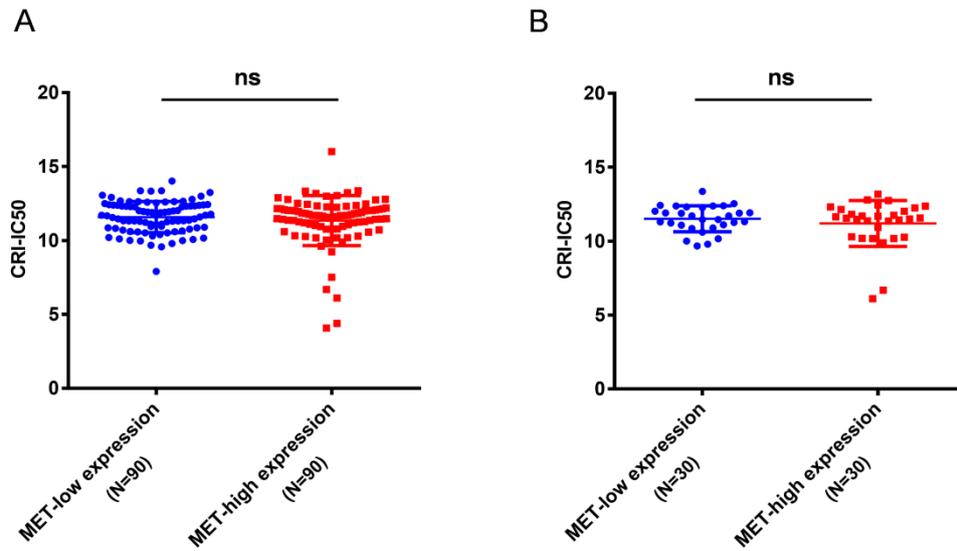


Figure S7. The IC50 values of crizotinib in human cancer cell lines with different expression statuses of *c-MET* mRNA in the Cancer Cell Line Encyclopedia (CCLE) project [26]. The cell lines were equally stratified into the high *c-MET* expression and low *c-MET* expression groups. **(A)** All 180 human cancer cell lines. **(B)** 60 lung cancer cell lines. ns, not significant.

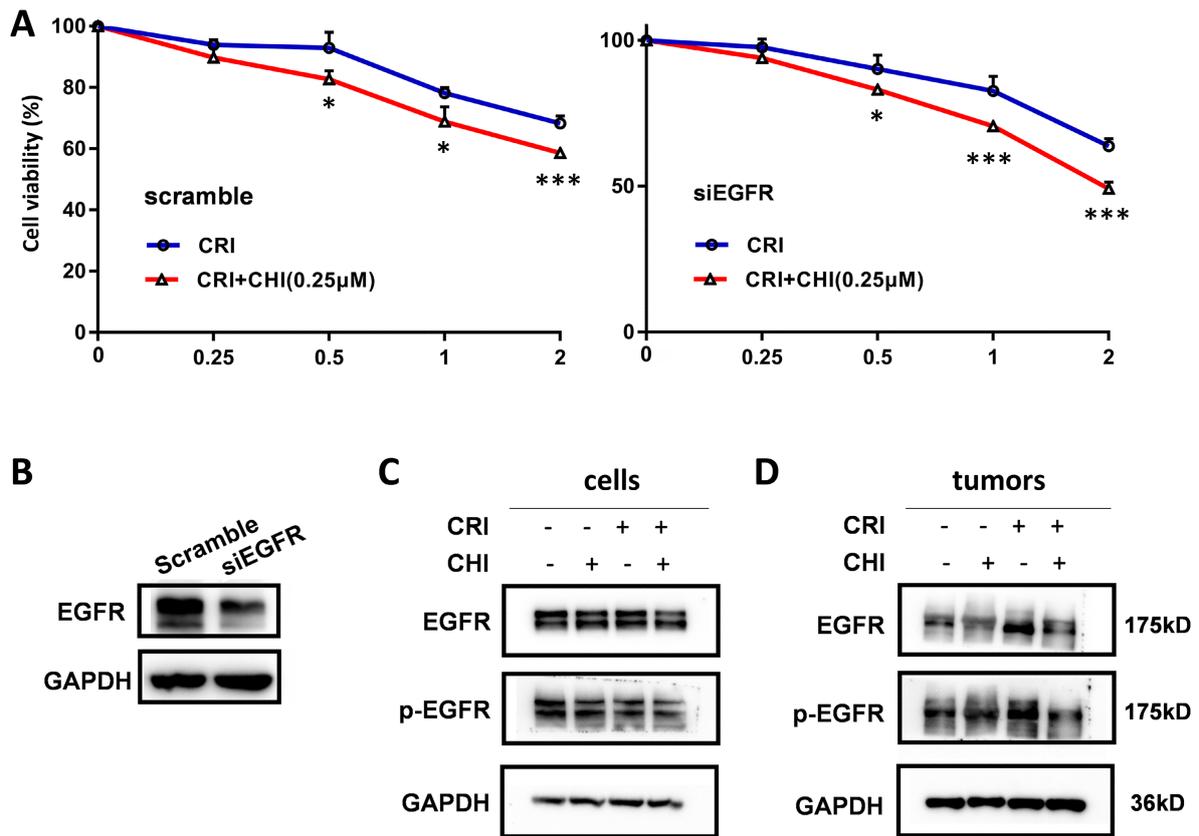


Figure S8. Effect of *EGFR* downregulation by siRNA on the viability and EGFR phosphorylation of HCC827 cells with treatment of chidamide, crizotinib, and their combination. **(A)** Synergistic effect of chidamide-crizotinib in HCC827 cells with and without siRNA knockdown of *EGFR* expression (siEGFR). The crizotinib-IC₅₀ values for EBC-1 cells were calculated in the absence or presence of chidamide. **(B)** The level of global EGFR protein in HCC827 cells 48 hr posttransfection in Western blotting. **(C)** The levels of global EGFR and phosphorylated EGFR (pEGFR) proteins in HCC827 cells treated with chidamide (0.25 μM), crizotinib (1 μM), or their combination for 4 hr in Western blotting; **(D)** The level of global EGFR protein in HCC827-derived tumors in mice treated with chidamide (5 mg/kg/d), crizotinib (25 mg/kg/d), or their combination for 21 days. ***/***, P < 0.05/0.01/0.001

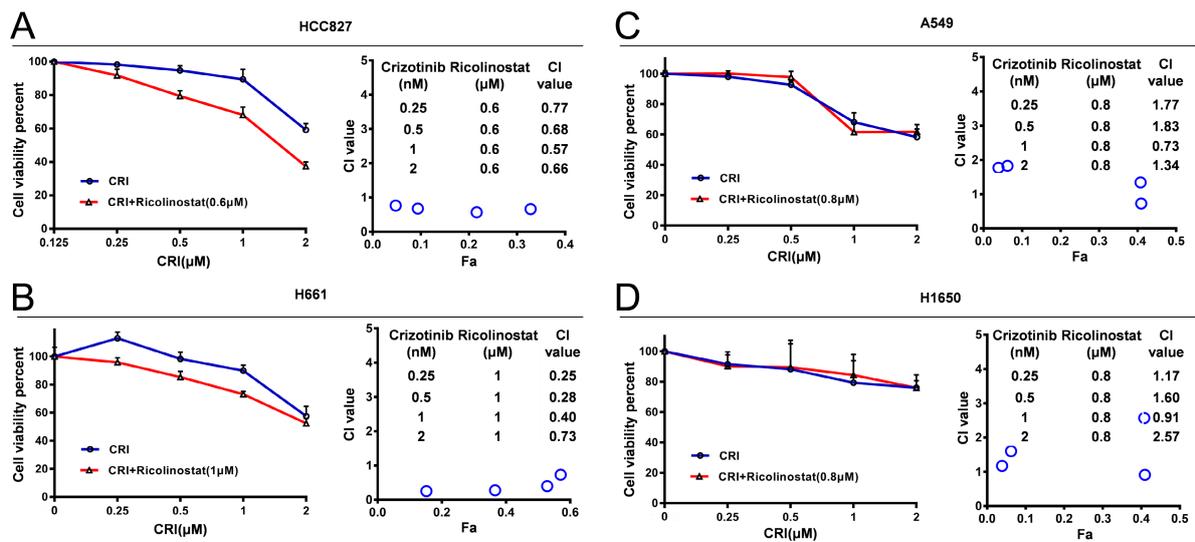


Figure S9. Effect of ricolinostat on the ALK mutation-free NSCLC cells to crizotinib. NSCLC cells were treated with various concentrations of crizotinib (CRI) alone or combined with ricolinostat at $\leq 1/4$ IC50 for 72 hr. Cell viability was measured by using the IncuCyte platform (left charts). The synergetic effect of ricolinostat-crizotinib cotreatment on cell proliferation inhibition was calculated using the CI equation and presented as Fa (fraction affected by the dose) in the Fa–CI plots (right chart). (A) HCC827; (B) H661; (C) A549; (D) H1650.

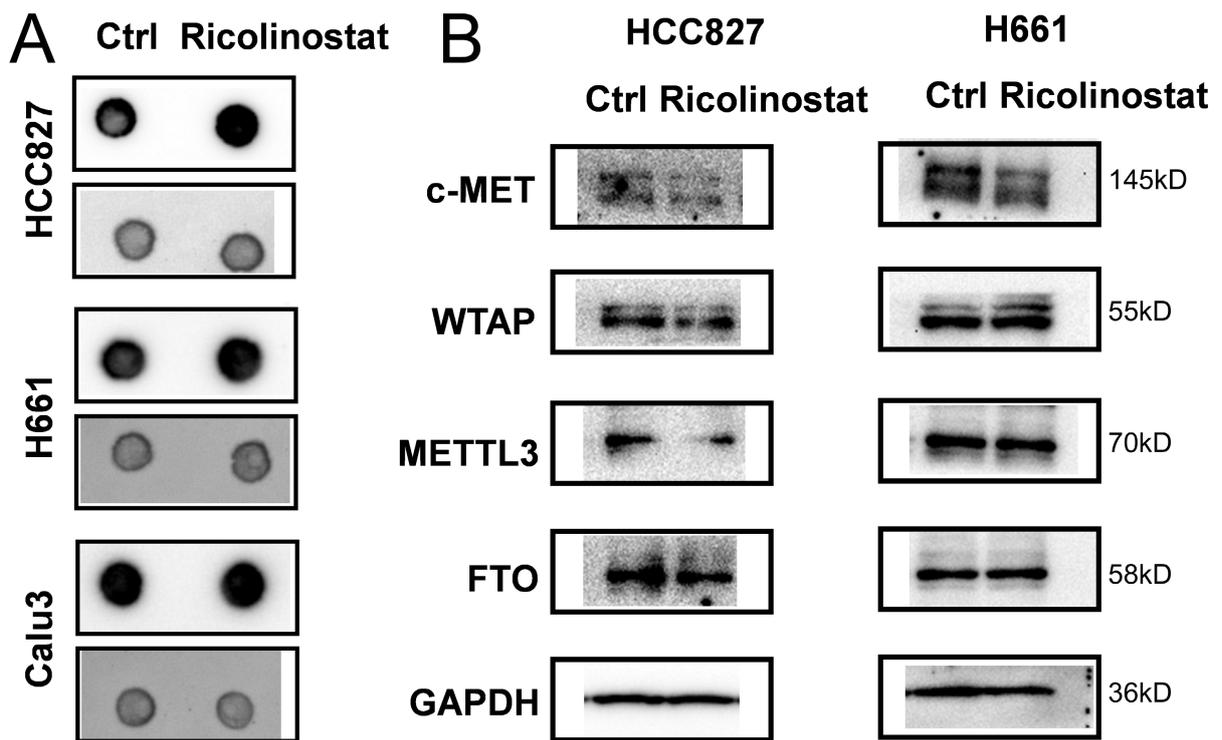


Figure S10. Effect of ricolinostat on RNA m6A methylation of NSCLC cells. **(A)** The amounts of total m6A RNA of ricolinostat-crizotinib-sensitive cell lines (HCC827, H661, and Calu3) treated with ricolinostat (0.6 μ M for HCC827, 1 μ M for H661 and 0.5 μ M for Calu-3; 4 hr) in dot blotting analyses. **(B)** The levels of c-MET, WTAP, METTL3, and FTO proteins in ricolinostat-treated HCC827 and H661 cells in Western blotting