

**Figure S1. Loss of one allele of *Ezh2* enhanced the initiation of *Kras*-driven ADCs.** (A) H&E staining of the right lung lobes in *Kras*<sup>G12D/+</sup> and *Kras*<sup>G12D/+</sup>;*Ezh2*<sup>fl/+</sup> mice 20 weeks post Ad-Cre inhalation. *Kras*<sup>G12D/+</sup>;*Ezh2*<sup>fl/+</sup> mice showed more and bigger tumor lesions than *Kras*<sup>G12D/+</sup> mice. The red-solid line indicated tumor lesions. The scale bar represents 500  $\mu$ m. (B) Quantification of the tumor lesion number per mouse in *Kras*<sup>G12D/+</sup> (n = 5) and *Kras*<sup>G12D/+</sup>;*Ezh2*<sup>fl/+</sup> (n = 5) mice 20 weeks after Ad-Cre treatment (15 versus 20; p < 0.01). (C) Quantification of the tumor burden as the percentage of total tumor area over total lung area in *Kras*<sup>G12D/+</sup> (n = 5) and *Kras*<sup>G12D/+</sup>;*Ezh2*<sup>fl/+</sup> (n = 5) mice 20 weeks after Ad-Cre treatment (4% versus 23%; p < 0.01). The error bars indicate mean  $\pm$  SEM and p values are calculated by unpaired Student's t test. \*\*p < 0.01.

**Figure S2. The effect of EZH2 inhibition on cell growth of human lung cancer cells.** Relative cell growth of H358 and A549 cells treated with DMSO or EZH2 inhibitor GSK126 was measured by MTS assay. The error bars indicate mean  $\pm$  SEM and p values are calculated by paired Student's t test. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

**Figure S1**

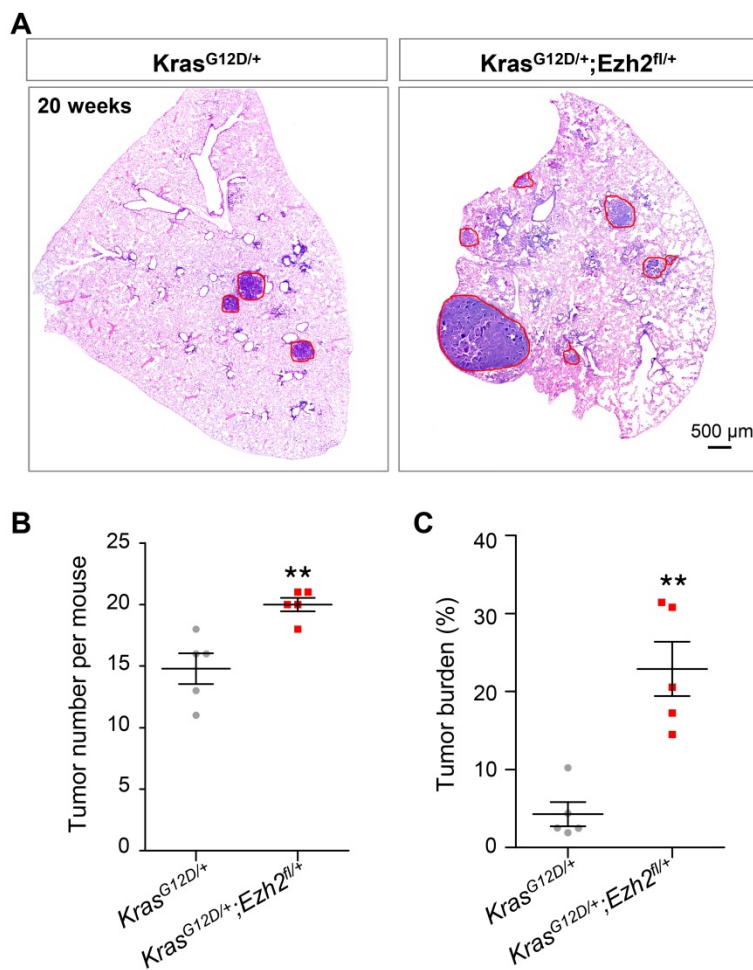


Figure S2

