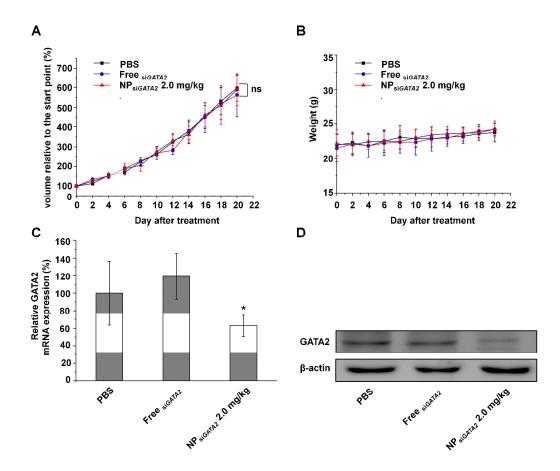
## **Supplementary Data:**

## Cationic Lipid-Assisted Polymeric Nanoparticles-Mediated GATA2 siRNA Delivery for Synthetic Lethal Therapy of KRAS Mutant Non-Small-Cell Lung Carcinoma

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Xenograft tumor model was generated by subcutaneous injection of H226 cells (5 ×  $10^6$ ) in 100 µL of Matrigel basement membrane matrix (Becton Dickinson, Bedford, MA) into the right flank of nude mice. When the tumor volume was around 100 mm<sup>3</sup> at 25 days, the mice were used for subsequent experiments. The mice were randomly divided (five mice per group) and treated with PBS, free si*GATA2* and NP<sub>siGATA2</sub>, by intravenous injection every other day at a dose of 40 µg siRNA per mouse. Tumor growth was monitored by measuring the perpendicular diameter of the tumor using calipers. GATA2 expression at mRNA and protein levels in the tumors was analyzed by qRT-PCR and Western blot analyses after last treatment.



**Figure S1.** Administration of NP<sub>siGATA2</sub> doesnot induces a reduction in *KRAS* wild-type NSCLC growth. (A) and (B) Antitumor growth and body weight changes of mice following intravenous injection of various formulations in H226 xenograft tumors. (C) and (D) Reduction of GATA2 mRNA and protein expression levels in H226 xenograft tumors after treatment with various formulations. Three samples of each group were randomly chosen for detection.