

## Supplementary Material

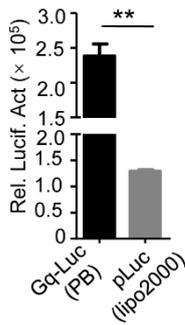


Figure S1. Comparison of transfection efficiency between Gq-DNA auto-transfection and Lipo2000. HepG2 cells were treated with Gq-CMV-Luc and polybrene (PB, 5  $\mu$ g/mL) or transfected with the plasmid expressing luciferase (pLuc, pCMV-tag2B-luciferase) by Lipo2000. 24 hours later, relative luciferase activities (Rel. Lucif. Act) were quantified. \*\*,  $P < 0.01$ .

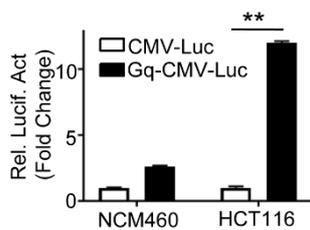


Figure S2. Relative luciferase activities (Rel. Lucif. Act.) in NCM460 and HCT116 treated with polybrene (PB, 5  $\mu$ g/mL) and CMV-Luc or Gq-CMV-Luc. \*\*,  $P < 0.01$ .

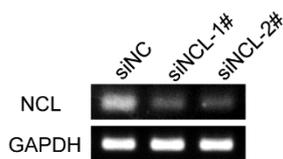


Figure S3. HepG2 cells were transfected with siNC (scrambled siRNA serves as negative control), siNCL-1#, and siNCL-2#. 48 hours later, the expression of NCL were detected by Semi-quantitative PCR.

### Cost Accounting.

Critical reagents needed to produce Gq-DNA are DNA Polymerase (2  $\times$  Rapid Taq Master Mix, Vazyme Biotech, Nanjing, China, \$2.4 per mL) for PCR reaction and PCR Product Purification kit (SIMGEN, Hangzhou, China, \$42/50 reactions) to remove free Gq. These reagents that cost about \$20 can produce sufficient Gq-DNA (about 150  $\mu$ g) because of high efficiency of PCR

reaction. Thus, compared with conventional transfection reagent, for example, 0.75 mL Lipofectamine™ 2000 that transfects about 300 µg DNA sells for 479 dollars, Gq-DNA transfection is low cost.