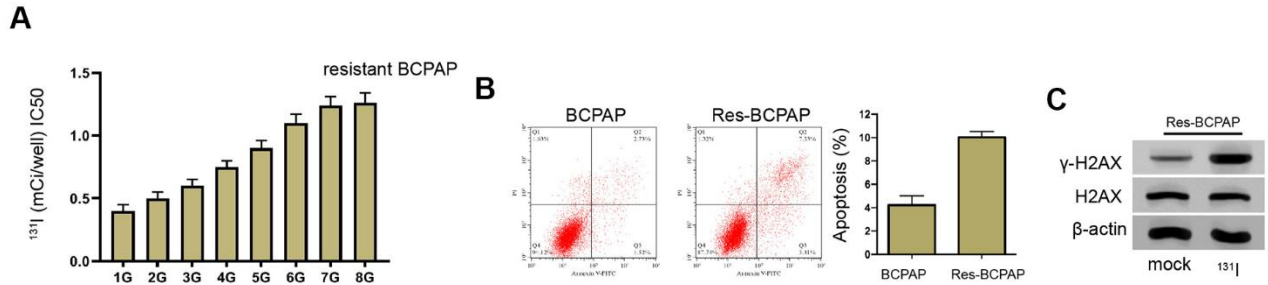
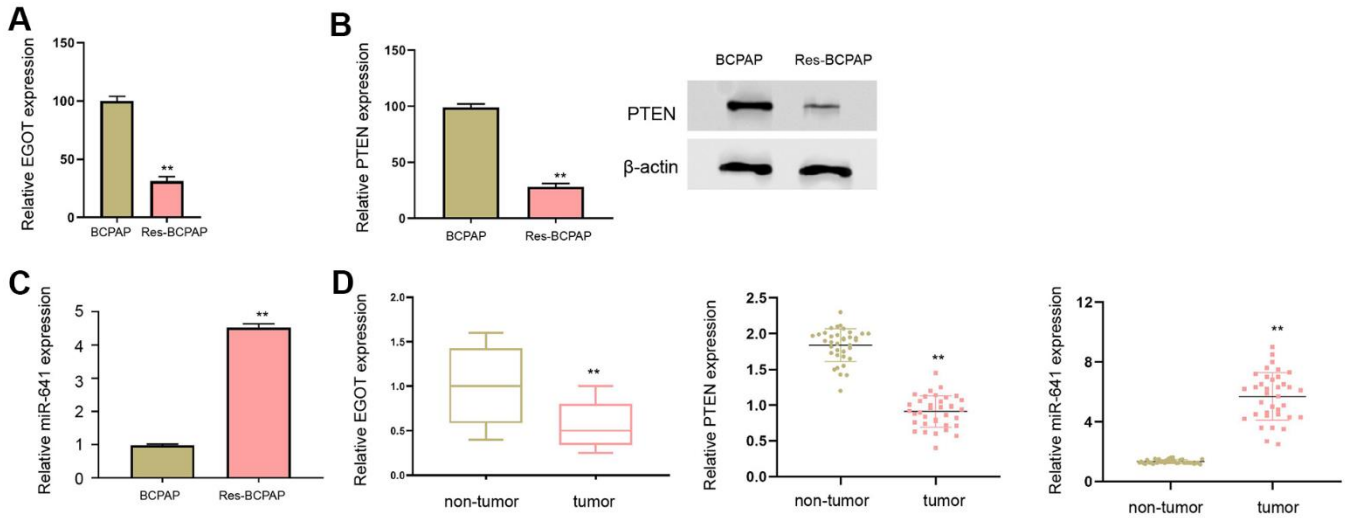


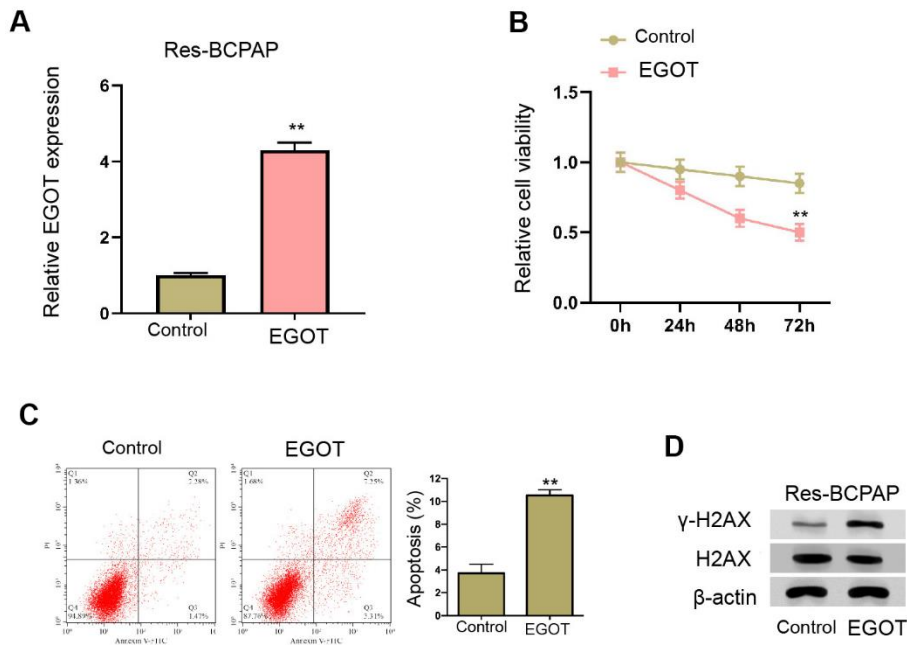
SUPPLEMENTARY FIGURES



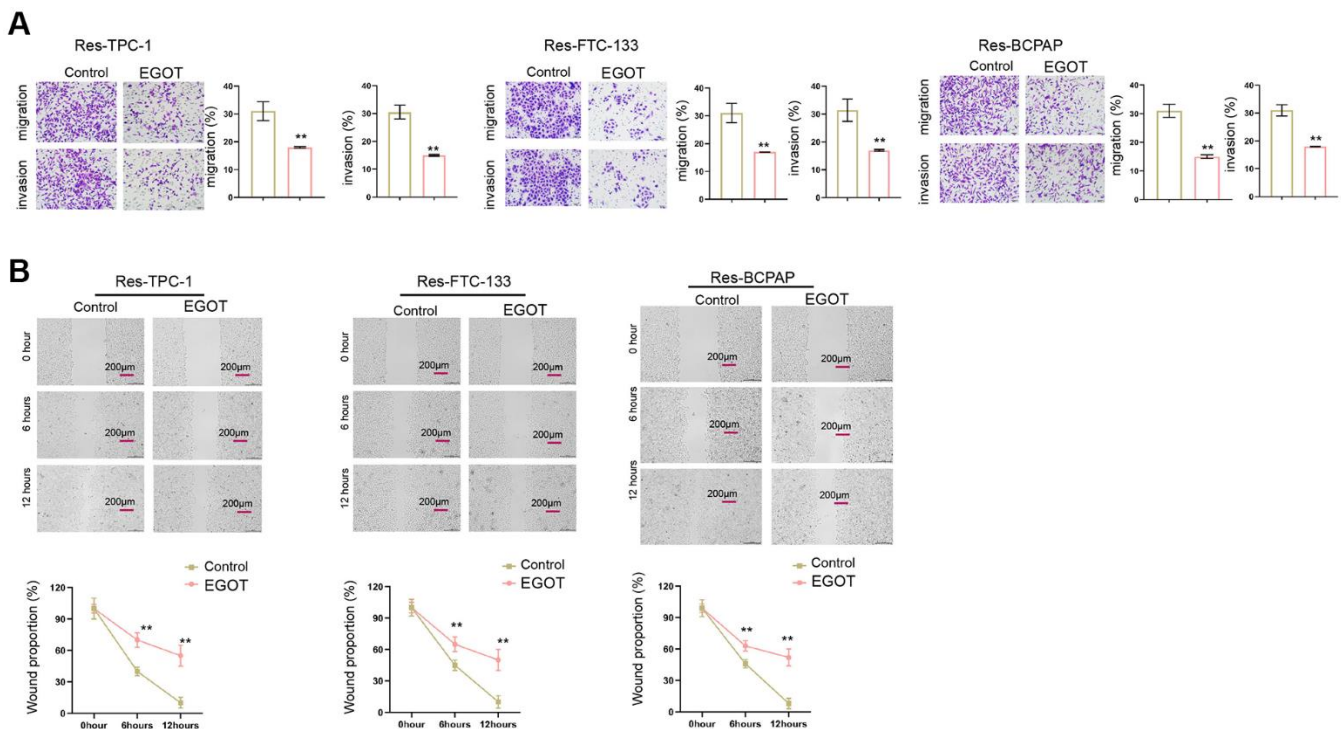
Supplementary Figure 1. The establishment of 131I-resistant TC cells. (A–C) BCPAP cells were treated with sub-lethal ¹³¹I. (A) The ¹³¹I-resistant BCPAP cells were established after 8-continuous passages. (B) Flow cytometry analysis of cell apoptosis in the cells. (C) Western blot analysis of γ-H2AX expression in the cells. mean ± SD, ** *P* < 0.01. Experiments were repeated at least biological triplicates.



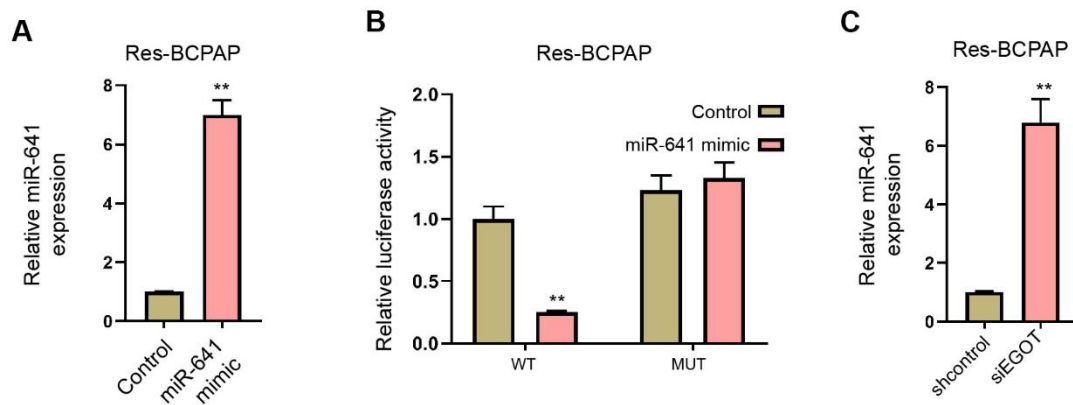
Supplementary Figure 2. EGOT and PTEN expression is decreased and miR-641 expression is increased in 131I-resistant TC cells. (A) The qPCR analysis of EGOT in ¹³¹I-resistant BCPAP cells. (B) The qPCR and Western blot analysis of PTEN in ¹³¹I-resistant BCPAP cells. (C) The qPCR analysis of miR-641 in ¹³¹I-resistant BCPAP cells. (D) The qPCR analysis of EGOT, PTEN, and miR-641 in clinical tumor tissues and the adjacent normal tissues. mean ± SD, ** *P* < 0.01. Experiments were repeated at least biological triplicates.



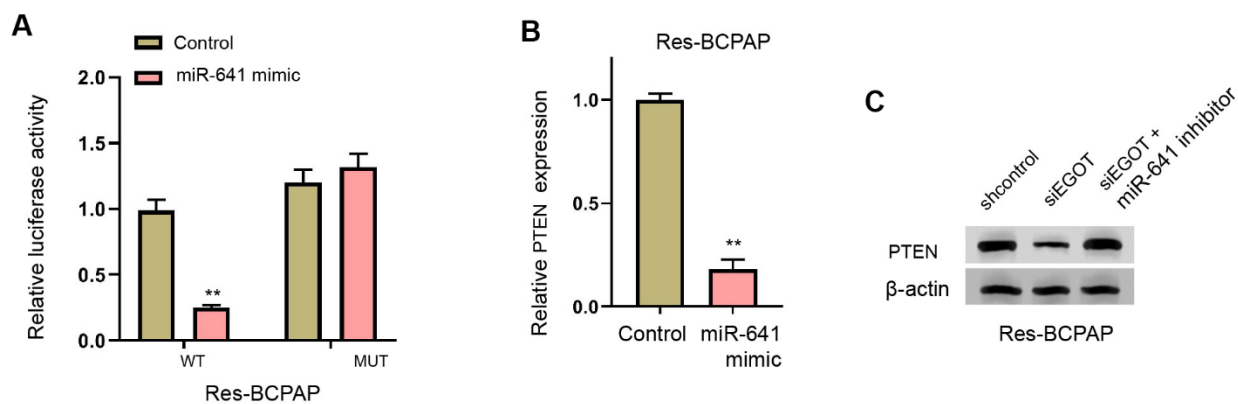
Supplementary Figure 3. EGOT represses viability, enhances apoptosis and induces DNA damage in ^{131}I -resistant TC cells. (A–D) The ^{131}I -resistant and BCPAP cells were treated with EGOT overexpression vectors. (A) The qPCR analysis of EGOT in the cells. (B) CCK-8 analysis of cell viabilities. (C) Flow cytometry analysis of cell apoptosis in the cells. (D) Western blot analysis of γ -H2AX expression in the cells. mean \pm SD, ** $P < 0.01$. Experiments were repeated at least biological triplicates.



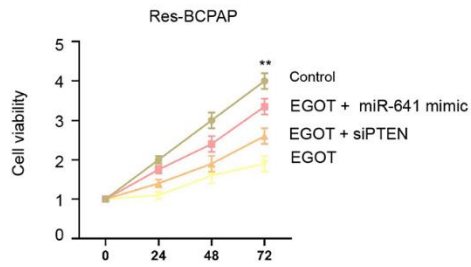
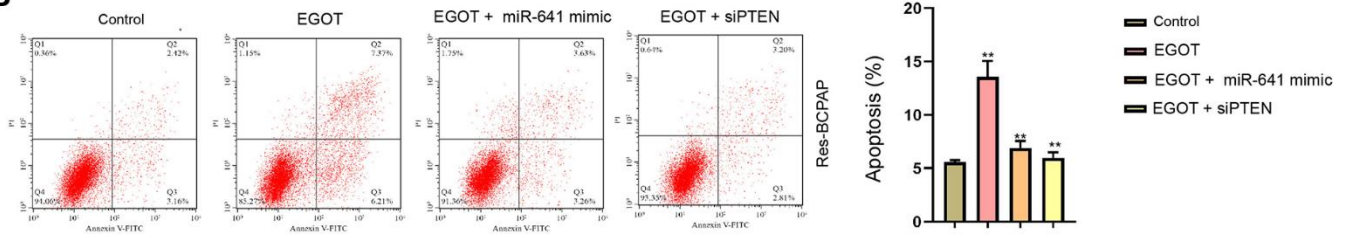
Supplementary Figure 4. EGOT represses migration and invasion in ^{131}I -resistant TC cells. (A, B) The ^{131}I -resistant TPC-1, FTC-133, and BCPAP cells were treated with EGOT overexpression vectors. (A) The migration and invasion were measured by transwell in the cells. (B) The migration was analyzed by wound healing assays. mean \pm SD, ** $P < 0.01$. Experiments were repeated at least biological triplicates.



Supplementary Figure 5. EGOT is able to sponge miR-641 in ¹³¹I-resistant TC cells. (A, B) The ¹³¹I-resistant BCPAP cells were treated with miR-641 mimic. (A) The qPCR analysis of miR-641 in the cells. (B) Luciferase reporter gene assays of EGOT luciferase activities. (C) The qPCR analysis of miR-641 in ¹³¹I-resistant BCPAP cells treated with EGOT siRNA. mean ± SD, ** *P* < 0.01. Experiments were repeated at least biological triplicates.



Supplementary Figure 6. MiR-641 can target PTEN in ¹³¹I-resistant TC cells. (A, B) The ¹³¹I-resistant BCPAP cells were treated with miR-641 mimic. (A) Luciferase reporter gene assays of PTEN mRNA 3'UTR luciferase activities. (B) The qPCR analysis of PTEN in the cells. (C) The Western blot analysis of miR-641 in ¹³¹I-resistant BCPAP cells treated with EGOT siRNA, or co-treated with EGOT siRNA and miR-641 inhibitor. mean ± SD, ** *P* < 0.01. Experiments were repeated at least biological triplicates.

A**B**

Supplementary Figure 7. EGOT regulates viability, apoptosis and DNA damage of ¹³¹I-resistant TC cells by targeting miR-641/PTEN axis. (A, B) The ¹³¹I-resistant BCPAP cells were treated with EGOT overexpression vectors, or co-treated with EGOT overexpression vectors and PTEN siRNA or miR-641 mimic. **(A)** CCK-8 analysis of cell viabilities. **(B)** Flow cytometry analysis of cell apoptosis in the cells. mean \pm SD, ** $P < 0.01$. Experiments were repeated at least biological triplicates.