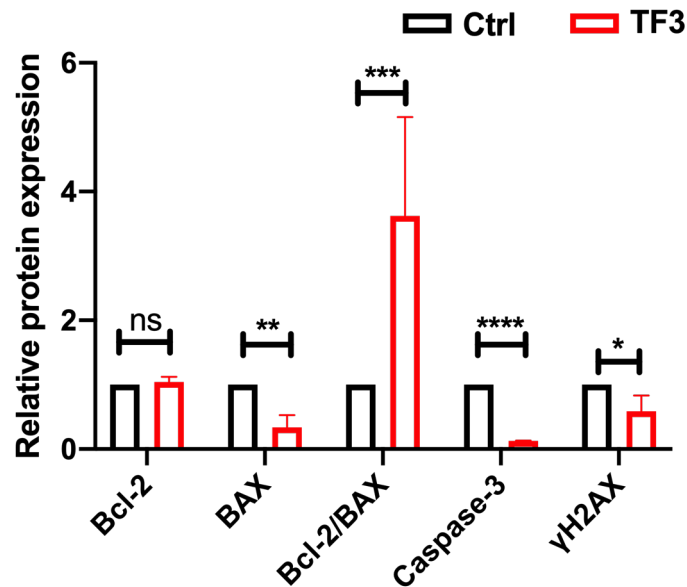
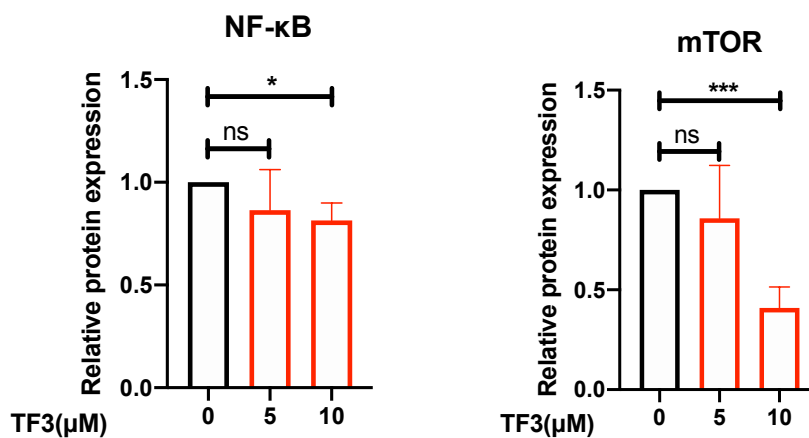


## Supplementary materials

### Supplementary figures

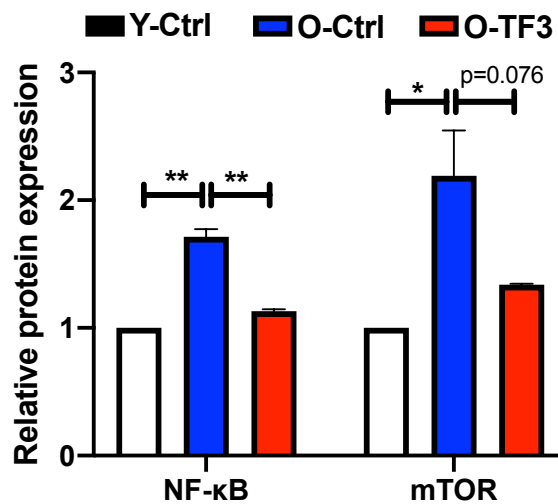


**Supplementary Figure S1. The Statistical analysis of apoptosis protein expression in different groups.** Granulosa cells were routinely cultured for 24 h after seeding, starved in serum-free culture medium for 24 h, and then treated with TF3 (10  $\mu$ M) or control. The apoptosis related proteins were measured, and the statistical analysis was performed. ns, no significant difference; \* $p$ <0.05, \*\* $p$ <0.01, \*\*\* $p$ <0.001, and \*\*\*\* $p$ <0.0001.



**Supplementary Figure S2. Statistical analysis of NF- $\kappa$ B and mTOR protein expression in different groups.** Granulosa cells were cultured for 24 h, starved in serum-free culture medium for 24h, and then TF3 (5 $\mu$ M,10  $\mu$ M) or control treatment was given. The related

marker proteins were measured, and the statistical analysis was performed. ns, no significant difference; \* $p < 0.05$  and \*\*\* $p < 0.001$ .



**Supplementary Figure S3. Statistical analysis of NF-κB and mTOR protein expression in different groups.** Ovarian tissues were collected from Y-Ctrl, O-Ctrl and O-TF3 group. The proteins were extracted to analyze the effects of TF3 on NF-κB and mTOR protein levels. The statistical analysis was performed. \* $p < 0.05$  and \*\* $p < 0.01$ .