Cite this as: Xinyan WANG, Xiuling XU, Ting ZHANG, Yang JIN, Sheng XU, Lifeng CHEN, Yucheng LAI, Ling ZHANG, Ruolang PAN, Yan YU. Estrogen upregulates DNA2 expression through the PI3K-AKT pathway in endometrial carcinoma[J]. Journal of Zhejiang University Science B, 2023, 24(3): 262-268. http://doi.org/10.1631/jzus.B2200436

Estrogen upregulates DNA2 expression through the PI3K-AKT pathway in endometrial carcinoma

Key Words: Endometrial cancer, Estrogen receptor, DNA2, PI3K-AKT

Research Summary

This correspondence mainly focused on the expression of ER and DNA2 in the specimens of patients with endometrial cancer and analyze their relationship.

It was also found that the decreased expression of DNA2 in Ishikawa cells using specific targeting of shRNA resulted in reduced cell proliferation and clone-forming ability. We confirmed the feasibility of DNA2 as a therapeutic target and demonstrated that inhibiting DNA2 sensitizes Ishikawa cells to chemotherapy with camptothecin (CPT).

Innovation points

1. **The mechanism of ER regulating DNA2 expression was related to the PI3K-AKT pathway.**

2. Inhibiting DNA2 sensitizes Ishikawa cells to chemotherapy with CPT.