

Abstract

Breast cancer is the most common invasive tumor and is the second leading cause of death in women. Cyclin D1 is a product of the CCND1 gene, which is located on chromosome 11q13 and reproduces in more than 15% of breast tumors. *Artemisia* is a herbaceous plant of the family of Composites, due to its antioxidant properties. At the present study, the effect of *Artemisia aucheri Boiss* on the expression of the Cyclin D1 gene in the human breast cancer cell line (MCF-7) was investigated. The MCF-7 cultured cells were affected by the extract of *Artemisia* (2, 10, 20, 40, 100, 200, 300, 400, 500, 600 µg / ml) for 24 hours. The MTT assay showed that 100 and 200µg/ml destroyed the MCF-7 cancer cells (50% and >50% respectively). Western blot showed that the expression of the Cyclin D1 protein was decreased after treated with 100 and 200 µg/ml of the extract compared to the control group.

Keywords: *Artemisia aucheri Boiss*, Breast cancer , Cyclin D1, MTT assay, Western blot.



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**Cytotoxic effects study of *Artemisia aucheri Boiss* on
Human Breast Adenocarcinoma Cell Line (MCF-7):
Evaluation of Cyclin D1 Expression**

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