

Abstract



## Cytotoxic Activity of Achillea coarctata Poir. Extract \*

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**Abstract:** *Achillea* L. (Asteraceae) is a traditional medicinal herb which contains different phenol and flavonoid compounds that are responsible for *Achillea* pharmacological effects. Turkey is one of the most important centers of diversity for the genus *Achillea* in the world. The aim of this research was the investigation of the cytotoxic activity of *A. coarctata* Poir. extract on a human breast cancer cell line (MCF-7). The cytotoxic activity of the extract on the MCF-7 cell line and mouse embryo fibroblast cells (NIH/3T3) were evaluated by 3-(4,5-dimethyl thiazol-2-yl)-2,5-diphynyl tetrazolium bromide (MTT) assay. The extract has cytotoxic activity on MCF-7 cell line with IC<sub>50</sub> values 37.39 and 33.98 µg/mL after 24 and 48 h treatments, respectively. The results showed that the extract inhibited significantly MCF-7 cell. Further investigation is required to assess the cytotoxic potential of the extract in cancer therapy, and to isolation and purification of bioactive compounds.

Keywords: Achillea coarctata; cytotoxic activity; MCF-7

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