Abstract

Cytotoxic Activity of *Achillea coarctata* Poir. Extract †

Sevil Albayrak 1,* and Nurcan Silahtarlioğlu 2

1 Biology Department, Science Faculty, Erciyes University, Kayseri 38000, Turkey
2 Graduate School Natural Applied Science, Erciyes University, Kayseri 38000, Turkey; nurcan3889@gmail.com
* Correspondence: salbayrak@erciyes.edu.tr; Tel.: +90-352-207-6666
† Presented at the 2nd International Conference on Natural Products for Cancer Prevention and Therapy, Kayseri, Turkey, 8–11 November 2017.

Published: 17 November 2017

**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-diphenyl tetrazolium bromide (MTT) assay. The extract has cytotoxic activity on MCF-7 cell line with IC₅₀ 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

**Acknowledgments:** This work was supported by the Research Fund of the University of Erciyes. Project number is FYL-2017-7077.

© 2017 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).