

Abstract

Cytotoxic Potentials of Some Asteraceae Plants from Turkey on HeLa Cell Line †

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Abstract: Screening of plants plays a considerable role in the discovery of new biologically active compounds. In the past few decades, numerous useful antineoplastic drugs were discovered in higher plants by following up ethnomedicinal uses or as a result of antitumor screening. Many plants in the Asteraceae family are used in folk medicine for a variety indications all over the world, but only limited data are available concerning the anticancer effects. Asteraceae is the richest family not an only number of the species but also rate of endemism in the flora of Turkey. In the current study, the methanol extracts of Asteraceae species from Turkey [*Achillea setacea*, *Achillea sieheana*, *Achillea cucullata*, *Inula fragilis*, *Inula oculus-christi*, *Centaurea foliosa*, *Centaurea ertugriliiana*, *Calendula suffruticosa*, *Erigeron acer*] were tested against HeLa cell line in different concentrations (200 µg/mL, 100 µg/mL, 50 µg/mL, 25 µg/mL, 12.5 µg/mL, 6.25 µg/mL). Cell viability assessed with colorimetric MTT assay after 48 h treatment. According to the results; all tested extracts decreased cell viability in a dose dependent manner. The methanol extract of *Centaurea ertugriliiana* is the most active extract and it has a significant cytotoxic activity with 32.35 µg/mL IC₅₀ value on HeLa cell line.

Keywords: Asteraceae; cytotoxicity; HeLa



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