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4 *Achillea* species with excellent anticancer (cytotoxic) activities

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Being the most indigenous economic plants of Anatolia, *Achillea* genus is widespread all over the world and in literature its species have been investigated to possess several biological activities including cytotoxicity. In the present study, cytotoxic activities of chloroform-methanol extracts (1:1) of underground and overground parts of four *Achillea* species (*A. monocephala*, *A. nobilis*, *A. gonioccephala* and *A. sintenisii*) on HeLa (Human Cervical Carcinoma Cell Line) cell lines at concentrations 50, 100 and 250 µg/mL were investigated. The cytotoxic activities were tested using a real-time analyzer (xCELLigence). The xCELLigence system was used with the disposable E-plate 96 for the measurements of solvent extracts, controls and medium. The impedance difference based measurements were caused by the cells attached to the E-Plate 96. Fortunately, all of the extracts showed very high cytotoxic activity depending on the concentration. The lower the extract concentration the lower the cytotoxic activity. The highest cytotoxic activities were shown by underground extracts of *A. monocephala* (-0.0142) and *A. gonioccephala* (-0.0119).

Biography

Hamdi Temel is working as a full Professor since 2008 at Dicle University, Diyarbakir, Turkey. He is dean of the Faculty of Pharmacy in Dicle University. His research areas are synthesis and characterization of biologically active compounds, antioxidant studies etc. He has published more than 90 papers in reputed journals.

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