

Chemical profile, antiproliferative and pro-apoptotic activities of essential oils of <i>Pulicaria arabica</i> against A549 lung cancer cell line		
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<p><b>Abstract:</b> This study explores the chemical composition and antiproliferative effects of <i>Pulicaria arabica</i> essential oils (PAEOs). The oils were extracted via hydrodistillation and characterized using GC/MS, identifying 64 components, with carvotanacetone (36.97%), (-)-carvomenthone (27.20%), and benzene, 2-(1,1-dimethylethyl)-1,4-dimethoxy- (6.92%) as the main constituents. PAEOs showed IC50 values of 30-50 µg/mL against A549 lung cancer cells. Flow cytometry and RT-PCR analyses revealed that PAEOs induced apoptosis, increased G1 cell population, and modulated pro-apoptotic markers (caspase-3, Bax) and anti-apoptotic Bcl-2. These results suggest PAEOs have moderate antiproliferative activity and potential therapeutic value for lung cancer treatment.</p>		