In vitro antiproliferative activity of 3 H-spiro [1-benzofuran-2,1'-cyclohexane] derivatives Actividad antiproliferativa in vitro de derivados de 3 H-spiro [1-benzofuran-2,1'-cyclohexano]

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The in vitro effect of the resinous exudate of Heliotropium filifolium, of the 3 H-spiro[1-benzofuran-2,1'-cyclohexane] derivative called filifolinol 1, isolated from the resin and the semi-synthetic compounds filifolinone 2 and filifolinoic acid 3, obtained from filifolinol 1, were evaluated on the proliferation of an immortalized cell line, UCHT1, derived from rat thyroid. We evaluated the effect of these compounds on UCHT1 cell growth parameters by calculating doubling time; and toxicity using the LIVE/DEAD? in vitro test. The results showed that the resin is not active, while filifolinone 2, filifolinoic acid 3 and filifolinol 1 produced a significant inhibition of cell doubling time, in concentrations equal or greater than 50, 25 and 75 ?M, respectively. The LIVE/DEAD test showed no significant toxicity at these concentrations, compared to cultures kept in absence of compounds. These results suggest a possible cytostatic effect of these compounds, and could therefore constitute po