

## **Antioxidant and Cytotoxic Activity of Uvaol and Erythrodiol, Two Triterpenic Alcohols Present in Olive Oil, on a Human Leukemic Cell Line.**

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The aim of the present study was to evaluate the cytotoxic and antioxidant capacity of two triterpenic alcohols present in olive oil; uvaol and erythrodiol, in a human diffuse histiocytic lymphoma U937 cell line.

In a range of concentrations between 1,56 and 100  $\mu\text{M}$ , both compounds have shown a high antiproliferative effect which was concentration dependent.  $\text{IC}_{50}$  values for uvaol and erythrodiol were  $76,31 \pm 5,80 \mu\text{M}$  and  $72,13 \pm 5,15 \mu\text{M}$ , respectively. Cell cycle analysis support these results showing a decrease of G2/M phase, being more pronounced at high concentrations. Moreover, these compounds reduced intracellular levels of oxygen free radicals in U937 leukemic cells in dose dependent manner.

From these data, we suggest that uvaol and erythrodiol might have an antiproliferative effect in U937 cells. As the antioxidant activity and cell growth inhibition were dose dependent, we postulate that the reduction of the oxidative stress can be responsible of the cytotoxicity of these compounds in leukemic cells.