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Propolis Components Kill Leukemia Cells

Cytotoxicity of Polyphenolic/Flavonoid Compounds in a Leukaemia Cell Culture
Arh Hig Rada Toksikol, 2008 Dec 1; 59(4):299-308

Flavonoid components of propolis are biologically active substances with antioxidative, immunostimulative, immunomodulative, and anti-inflamatory properties. The aim of the study was to investigate their cytotoxic effect on different leukaemia cell lines…

The results show different dose- and cell-type-dependent cytotoxicity. Among the flavonoids, quercetin showed the strongest cytotoxic effect in all cell lines. Caffeic acid and chrisyn also expressed a high level of cytotoxicty. Treatment of U937 and HL-60 cell lines with low concentrations of chrisyn or naringenin stimulated cell proliferation.

These results suggest a biphase effect of the tested compounds on monocyte cell lines. Cytotoxicity and growth stimulation mechanisms caused directly by flavonoids should further be investigated on the molecular level.