Potential chemopreventive properties of extract from baked sweet potato (Ipomoea batatas Lam. Cv. Koganesengan).

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Source

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Abstract

The extract from baked sweet potato (Ipomoea batatas Lam. cv. Koganesengan) showed potential cancer-preventing effects. The extract was partially fractionated to four fractions (I, II-a II-b, and III) by Sephadex G-25 gel chromatography. The cytotoxicity against human myelocytic leukemia HL-60 cells, the suppression of TPA-induced transformation in mouse skin JB6 C141 cells, the apoptosis inducing activity in HL-60 cells, and the scavenging capacity against DPPH radical were tested on the four fractions. Fractions II-a and III showed markedly strong radical scavenging effects on the DPPH radical, coinciding with the high content of total phenolic compounds in the fractions. Both of these fractions suppressed strongly the proliferation of HL-60 cells with apoptosis induction in a dose-dependent manner. Moreover, the two fractions markedly blocked TPA-induced cell transformation in the JB6 cell line. Taken together, these data suggest that the water extract from baked sweet potato had potential chemopreventive properties.

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