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## Inhibitory effects of [6]-gingerol, a major pungent principle of ginger, on phorbol ester-induced inflammation, epidermal ornithine decarboxylase activity and skin tumor promotion in ICR mice

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## Abstract

A wide array of phytochemicals have been shown to possess potential cancer chemopreventive properties. Ginger contains pungent phenolic substances with pronounced antioxidative and antiinflammatory activities. In the present study, we have determined the antitumor promotional activity of [6]-gingerol, a major pungent principle of ginger, using a two-stage mouse skin carcinogenesis model. Topical application of [6]-gingerol onto shaven backs of female ICR mice prior to each topical dose of 12-O-tetradecanoylphorbol-13-acetate (TPA) significantly inhibited 7,12-dimethylbenz[a]anthracene-induced skin papillomagenesis. The compound also suppressed TPA-induced epidermal ornithine decarboxylase activity and inflammation.

## Keywords

[6]-Gingerol; Antitumor promotion; Anti-inflammation; Curcumin; Chemoprevention; HL-60 cells

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