Effects of Salicylic Acid on Mushroom Tyrosinase and B16 Melanoma Cells

Sadaaki Tamura, Teruhiko Nitoda, and Isao Kubo*

Department of Environmental Science, Policy and Management, University of California, Berkeley, California 94720-3114, USA. Fax: +1-510-643-0215.
E-mail: ikubo@calmail.berkeley.edu

* Author for correspondence and reprint requests

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Salicylic acid slightly inhibited the oxidation of L-3,4-dihydroxyphenylalanine (L-DOPA) catalyzed by mushroom tyrosinase noncompetitively without being oxidized. In contrast, 4-hydroxybenzoic acid did not inhibit this enzymatic oxidation if a longer reaction time was observed, although it suppressed the initial rate of the oxidation to a certain extent. Neither acid showed noticeable effects on cultured murine B16-F10 melanoma cells except weak cytotoxicity.

Key words: Salicylic Acid, Tyrosinase, B16-F10 Melanoma Cells