

〈ノート〉

酒粕抽出液のチロシナーゼ活性阻害効果

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Inhibition of Tyrosinase Activity by Sake Lee Extract

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Abstract

As anti-aging continues to gain worldwide attention, many people are becoming increasingly interested in beauty treatments that maintain beautiful skin free of discoloration and freckles by inhibiting melanogenesis. Sake lees, the lees resulting from sake production, have conventionally been used as a food product but may also have promise as an ingredient for cosmetics. To explore this potential, in this experiment, we investigated the tyrosinase inhibiting effects of sake lees extract.

Dried sake lees powder solutions were extracted using 20, 60, and 100°C distilled water and 20, 40, 60, 80, and 100% ethanol. The tyrosinase inhibiting effects of each extract were examined using tyrosinase from mushroom and 3,4-dihydroxy-L-phenylalanine substrate. The results confirmed that the 60°C water extract (stock solution and 100 times dilution of stock solution) and 60% ethanol extract (stock solution and 100 or 1000 times dilution of stock solution) significantly inhibited tyrosinase activity. These extracts are concluded to contain multiple tyrosinase-inhibiting ingredients. Sake lees extract is thus a promising ingredient for use in skin-whitening cosmetics.

Key words: sake lee, skin-whitening, inhibition of tyrosinase activity, mushroom tyrosinase.