



Research on the components of persimmon leaf tea underlying its antioxidant properties

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Abstract

Persimmon leaf tea is a health tea made from dried persimmon leaves that exhibits high antioxidant activity. Although persimmon leaf tea has been reported to contain many polyphenols, there are few detailed reports on the components involved in its antioxidant properties. Therefore, in this study, we investigated the antioxidative effect of persimmon leaf tea and the components that contribute to it. The results showed that the antioxidant activity of persimmon leaf tea was highest at 79.7 % at 50 % ethanol extraction but was not affected by the ethanol concentration at the time of extraction. The antioxidant activity of green tea was reported to be 81.1 %, which was slightly higher than that in persimmon leaf tea. Furthermore, the total polyphenol content of persimmon leaf tea was 15.4 mg/L as gallic acid equivalent, and the antioxidant activity of a solution of gallic acid at the same concentration was measured, exhibiting 71.7 % antioxidant activity. Since the polyphenols of persimmon leaf tea contain a large amount of gallic acid, gallic acid may be one of the components contributing to the antioxidative effect of persimmon leaf tea.

Keywords: antioxidant activity, ethanol concentration, gallic acid, health tea, total polyphenol