B38 Preparation and antioxidant properties of extracts of persimmon young leaf (Diospyros kakiThunb.cv.Jirou)

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ABSTRACT

Persimmon young leaf extracts were obtained from Diospyros kaki Thunb.cv.Jirou young leaf of May 2011 by three methods of extraction. Persimmon young leaf extracts from cold water, boiled water and ethanol were studied for percentage extraction and for antioxidant activities by DPPH radical-scavenging method. Cold Water, boiled Water and ethanol extract solution of persimmon young leaf present different colors and different percentage extraction. The antioxidant activity of these extracts was stronger than ascorbic acid. These results show that persimmon young leaf could be considered as a natural antioxidant source.

Key Words: persimmon (柿葉), young leaf extracts (嫩葉萃取), antioxidant (抗氧化)

B39 Anti-inflammatory and antioxidant activities of flavonoid rich natural product

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ABSTRACT

Ultraviolet (UV) irradiation exposure-induced skin diseases or skin disorders are caused by the excessive induction of inflammation, oxidative stress and DNA damage. Topical applying flavonoids have been shown to have the ability of antioxidant and reduce UV irradiation-induced skin inflammation. IP is a member of the flavonoid-rich flowering plants and used as folk medicine in India.The aim of this study was to investigate the activity of IP extract (IPE). The extraction yield of IPE was 17.4 ± 3.9%, the total flavonoids content was 54.2 ± 4.4 μg quercetin equvalent (QE)/mg extract. IPE at 1000 μg/mL exhibited a ferrous chelating activity of 72.2 ± 3.5%, a hydroxyl radical scavenging activity of 96.8 ± 1.4%, and a hydrogen peroxide scavenging activity of 99.5 ± 3.3%. IPE at 500 μg/mL also resulted in a 52.9% reduction in ROS generation in UV-exposed fibroblasts. In addition, IPE inhibited NO production and COX-2 expression in UV-exposed fibroblasts. According to our findings, IPE is a potent antioxidant and anti-inflammatory agent, suggest that it could be potentially used for skin protection against the damage caused by UV exposure.

Keywords: antioxidant, anti-inflammation, NO, COX-2