Determination of antioxidant activity, total phenolic compounds, chlorogenic acids and caffeine in coffee blossom tea

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Abstract: Coffee blossom tea has been associated with high antioxidants and related to prevent diabetes and cancer. There are also small amounts of caffeine and tannin. The objective of this study was to evaluate the quantity of the antioxidant properties, total phenolic compounds, chlorogenic acid and caffeine in coffee blossom tea of Robusta that received from Chumphon province. The antioxidant activity using DPPH assay presented as term half maximal effective concentration at 50% (EC50) when compared with the standard solution of BHT. The total phenolic compounds were extracted by Folin-Ciocalteu method. The chlorogenic acid and caffeine were analyzed using HPLC method. The result of antioxidant activity revealed that the DPPH assay of coffee blossom tea was 150.83 µg/ml and the result showed antioxidant activity higher than BHT standard (24.61 µg/ml). The total phenolic compounds, chlorogenic acid and caffeine in coffee blossom tea were 25.91, 0.6714 and 0.4744 ppm, respectively.

Keywords: Coffee blossom tea; Antioxidant; Total phenolic compounds; Chlorogenic acid; Caffeine