

ABSTRAK

Penelitian ini dilakukan untuk mengetahui kadar fenolat total, kadar α -mangostin, dan aktifitas antioksidan dari ekstrak kulit buah manggis. Pembuatan ekstrak dengan maserasi bertingkat menggunakan pelarut yang semakin meningkat kepolarannya. Ekstrak yang diperoleh ditentukan kadar fenolat total dengan reagen Folin-Ciocalteu, penentuan kadar α -mangostin dengan KLT-Densitometer, dan penentuan aktivitas antioksidan dengan metode FRAP (*Ferric Reducing Antioxidant Power*). Hasil penelitian menunjukkan bahwa kadar fenolat total tertinggi terdapat dalam ekstrak etanol (26,3875 g/100 g) diikuti ekstrak etil asetat (10,6439 g/100 g) dan *n*-heksan (5,0919 g/100 g). Kadar α -mangostin tertinggi terdapat dalam ekstrak etil asetat yaitu (47,2186%), ekstrak *n*-heksan (11,7333%), dan ekstrak etanol (0,9488%). Aktifitas antioksidan dari ekstrak etanol, etil asetat, dan *n*-heksan berturut-turut adalah (38,63 mmol Fe (II)/100 g; 8,91mmol Fe (II)/ 100 g; 1,07mmol Fe (II)/100 g). Hasil penelitian ini ditemukan bahwa terdapat hubungan yang linear antara kadar fenolat total dengan aktifitas antioksidan.



ABSTRACT

This study was conducted to determine the levels of total phenolics, levels of α -mangostin, and the antioxidant activity of the extract of mangosteen rind. The extracts were prepared by maceration using solvent with increasing polarity. Extracts obtained were analyzed to determine phenolic and α -mangostin contents and antioxidant activities. Phenolic contents were measured by Folin-Ciocalteu method. α -mangostin contents were measured by TLC-densitometry method. Antioxidant activity was determined using FRAP (Ferric Reducing Antioxidant Power) method. The results of this research showed that total phenolic content of ethanol extract (26,3875 g/100 g) was higher than ethyl acetate extracts (10,6439 g/100 g) and *n*-hexane extracts (5,0919 g/100 g). The highest levels of α -mangostin contained in ethyl acetate extract (47,2186%), followed by *n*-hexane extract (11,7333%), and ethanol extract (0,9488%). The antioxidant activity of the extract ethanol, ethyl acetate and *n*-hexane in a row is (38,63 mmol Fe (II) / 100 g; 8,91mmol Fe (II) / 100 g; 1,07mmol Fe (II) / 100 g). The results of this study found that there is a linear relationship between the levels of total phenolics with antioxidant activity.

