

ABSTRAK

ILALANG SIWI PERTIWI, 2024. UJI AKTIVITAS ANTIOKSIDAN FRAKSI *n*-HEKSANA, ETIL ASETAT, *n*-BUTANOL, AIR DARI EKSTRAK ETANOL 96% BIJI ALPUKAT MENTEGA (*Persea americana* Mill.) MENGGUNAKAN METODE DPPH (2,2 *diphenyl-1-picrylhydrazyl*), SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh apt. Mamik Ponco Rahayu, M.Si. dan apt. Ismi Puspitasari, M.Farm.

Antioksidan yaitu senyawa yang menghambat oksidasi senyawa lain. Biji buah alpukat mentega kaya akan senyawa fenolik, flavonoid dan tanin. Senyawa tersebut diketahui sebagai antioksidan. Tujuan penelitian ini untuk mengetahui potensi fraksi *n*-heksan, etil asetat, *n*-butanol dan air dari ekstrak etanol 96% biji buah alpukat mentega. Serta mengetahui golongan senyawa metabolit sekunder yang terkandung dalam fraksi teraktif.

Serbuk biji alpukat mentega dimaserasi dengan pelarut etanol 96%. Ekstrak difraksinasi dengan pelarut *n*-heksan, etil asetat dan *n*-butanol. Aktivitas antioksidan ekstrak dan fraksi diuji dengan metode DPPH, intensitas warna larutan diukur menggunakan Spektrofotometer UV-VIS. Identifikasi senyawa kimia fraksi teraktif dilakukan secara KLT.

Hasil penelitian ini menunjukkan adanya potensi antioksidan fraksi *n*-heksan, etil asetat, *n*-butanol, air dan ekstrak etanol 96% biji alpukat mentega. Aktivitas antioksidan ekstrak, fraksi *n*-heksan, etil asetat, *n*-butanol dan air berturut-turut yaitu 47.811 µg/mL, 66,91 µg/mL, 23.19 µg/mL, 39.86 µg/mL, 59.47 µg/mL. Golongan senyawa yang terkandung dalam fraksi etil asetat antara lain adalah alkaloid, triterpenoid, saponin dan flavonoid.

Kata Kunci: Ekstrak Etanol 96%, Biji Alpukat (*Persea americana* Mill.), Metode DPPH, Aktivitas Antioksidan.

ABSTRACT

ILALANG SIWI PERTIWI, 2024. TESTING ANTIOXIDANT ACTIVITY OF *n*-HEXANA, ETHYL ACETATE, *n*-BUTANOL, WATER FRACTIONS FROM 96% ETHANOL EXTRACT OF BUTTER AVOCADO SEEDS (*Persea americana* Mill.) USING THE DPPH METHOD (2,2 *diphenyl-1-picrylhydrazyl*), SKRIPSI, BACHELOR OF PHARMACY STUDY PROGRAM, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by apt. Mamik Ponco Rahayu, M.Si. and apt. Ismi Puspitasari, M. Farm.

Antioxidants are compounds that inhibit the oxidation of other compounds. Avocado seeds are rich in phenolic compounds, flavonoids and tannins. This compound is known as an antioxidant. The aim of this research was to determine the potential of n-hexane, ethyl acetate, n-butanol and water fractions from 96% ethanol extract of butter avocado seeds. As well as knowing the groups of secondary metabolite compounds contained in the most active fraction.

Avocado seed powder is macerated with 96% ethanol solvent. The extract was fractionated using n-hexane, ethyl acetate and n-butanol as solvents. The antioxidant activity of extracts and fractions was tested using the DPPH method, the color intensity of the solution was measured using a UV-VIS spectrophotometer. Identification of the most active fraction chemical compounds was carried out by TLC.

The results of this study indicate the antioxidant potential of n-hexane, ethyl acetate, n-butanol, water and 96% ethanol extract of avocado seed butter. The antioxidant activity of the extract, n-hexane, ethyl acetate, n-butanol and water fractions were 47,811 $\mu\text{g/mL}$, 66.91 $\mu\text{g/mL}$, 23.19 $\mu\text{g/mL}$, 39.86 $\mu\text{g/mL}$, 59.47 $\mu\text{g/mL}$, respectively. The classes of compounds contained in the ethyl acetate fraction include alkaloids, triterpenoids, saponins and flavonoids.

*Keywords: 96% Ethanol Extract, Avocado Seeds (*Persea americana* Mill.), DPPH Method, Antioxidant Activity.*