

ABSTRAK

MERIE SAPHIRA CAHYANI, 2023, PENETAPAN KADAR FLAVONOID TOTAL EKSTRAK DAUN NYAMPLUNG (*Calophyllum inophyllum* L.) DENGAN SPEKTROFOTOMETRI UV_Vis, SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Nyamplung (*Calophyllum inophyllum*) adalah suatu tanaman bakau yang mengandung beberapa golongan senyawa, seperti : triterpenoid, xanton, flavonoid dan kumarin. Penelitian ini berfokus pada pengaruh dari perbedaan amplitude ekstraksi terhadap kadar senyawa flavonoid total.

Flavonoid diekstraksi menggunakan etanol dengan metode ultrasonik pada variasi amplitudo 20, 40 dan 60. Identifikasi fitokimia dilakukan dengan uji reaksi warna (uji shinoda, uji NaOH, dan uji H₂SO₄) dan KLT, sedangkan penetapan kadar flavonoid total diperoleh melalui spektrofotometri UV - Vis dengan baku standart kuersetin. Analisa hasil akan dilakukan dengan metode regresi linier.

Uji reaksi warna (shinoda, NaOH dan H₂SO₄) menunjukkan hasil hasil positif pada ketiga jenis ekstrak yang ditandai dengan adanya perubahan warna merah pada uji shinoda, kuning pada uji NaOH dan merah pada uji H₂SO₄. Uji KLT menghasilkan Rf berturut - turut : 0,804, 0,782, dan 0,760 dan baku kuersetin : 0,804, Perolehan kadar total flavonoid berturut – turut : 1.166 mg QE /gram, 1.290 mg QE/gram, 1.590 mg QE/gram. Hasil ini menunjukkan bahwa amplitudo 60% (yang merupakan variasi tertinggi) juga memiliki kadar flavonoid total yang tertinggi.

Kata Kunci : Nyamplung, Flavonoid Total , UAE, Amplitudo

ABSTRACT

MERIE SAPHIRA CAHYANI, 2023, PENETAPAN KADAR FLAVONOID TOTAL EKSTRAK DAUN NYAMPLUNG (*Calophyllum inophyllum* L.) DENGAN SPEKTROFOTOMETRI UV_Vis, SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Nyamplung (*Calophyllum inophyllum*) is one of the mangrove plants which contains four classes of compounds, such as: triterpenoids, xanthenes, flavonoids and coumarins. This study focused on the levels of flavonoid compounds and the effect of differences in amplitude on total flavonoid levels.

Flavonoids were extracted using ethanol by UAE at various amplitudes of 20, 40 and 60. Identification phytochemicals was carried out by color reaction tests (shinoda, NaOH, and H₂SO₄ test) and TLC, while total flavonoid content was obtained by UV-Vis spectrophotometry with quercetin as standard. Data analysis will be carried out by using linear regression method.

The color reaction test (shinoda, NaOH and H₂SO₄) showed positive results for the three types of extracts which were indicated by a change in color to red in the shinoda and H₂SO₄ test, yellow in the NaOH test. R_f in TLC test respectively: 0.804, 0.782, and 0.760 and the quercetin standard: 0.804. The total flavonoid levels were obtained respectively: 1.166 mg QE/gram, 1.290 mg QE/gram, 1.590 mg QE/gram. These results show that the amplitude of 60% (which is the highest variation) also has the highest total flavonoid content.

Key Words : Nyamplung, UAE, Total Flavonoid, Amplitudo Ekstraktion