

ABSTRAK

Fitrah Azzahrah Isolasi dan Identifikasi Senyawa Golongan Flavonoid Ekstrak Etanol Kulit Buah Markisa Ungu (*Passiflora edulis* Sims) (Dibimbing oleh Abd. Malik dan Andi Amaliah Dahlia).

Telah dilakukan isolasi dan identifikasi senyawa golongan flavonoid ekstrak etanol kulit buah markisa ungu (*Passiflora edulis* Sims) dengan tujuan untuk menentukan golongan senyawa flavonoid dari ekstrak etanol kulit buah markisa ungu (*Passiflora edulis* Sims). Sampel sebanyak 300 gram diekstraksi menggunakan metode maserasi dengan etanol 96% menghasilkan ekstrak kering sebanyak 33,127 gram. Identifikasi pendahuluan dilakukan dengan menggunakan metode kromatografi lapis tipis dengan eluen n-heksan : aseton (8:2), kemudian disemprotkan pereaksi spesifik $AlCl_3$. Isolasi dilakukan dengan metode kromatografi cair vakum dengan eluen n-heksan : aseton (100:0, 90:10, 80:20, 70:30, 60:40, 50:50, 40:60, 30:70, 20:80, 10:90, 0:100). Isolat kemudian dimurnikan dengan metode KLT dua dimensi dan KLT multi eluen menghasilkan isolat murni yaitu isolat 4. Hasil isolat yang diperoleh kemudian diidentifikasi menggunakan spektroskopi UV-Vis menunjukkan serapan pada panjang gelombang 230 nm dan 270 nm. Spektrofotometer infra merah menunjukkan serapan pada bilangan gelombang 3483.44 cm^{-1} menunjukkan adanya gugus O-H, pada serapan 1653.00 cm^{-1} menunjukkan adanya gugus C=O, pada serapan 1238.30 cm^{-1} menunjukkan adanya gugus C-O, dan pada serapan 808.17 cm^{-1} menunjukkan adanya gugus C-H, serta identifikasi dengan menggunakan pereaksi spesifik. Dari pengamatan di atas menunjukkan bahwa isolat merupakan senyawa golongan flavonoid.

Kata kunci : Flavonoid; Isolasi; Kromatografi; Kulit Buah Markisa Ungu (*Passiflora edulis* Sims)

ABSTRACT

Fitrah Azzahrah Isolation and Identification of Flavonoid Compounds
Ethanol Extract of Purple Passion Fruit Peel (*Passiflora edulis* Sims)
(Supervised by Abd. Malik and Andi Amaliah Dahlia).

The objective of this study is to isolate and identify flavonoid components from the ethanol extract of purple passion fruit peel (*Passiflora edulis* Sims) in order to determine the specific class of flavonoid compounds present in the extract. A 300-gram sample was subjected to extraction using the maceration method, employing 96% ethanol. This process yielded a dry extract weighing 33.127 grams. The initial identification process involved employing the thin layer chromatography technique with a mixture of n-hexane and acetone (in an 8:2 ratio) as the eluent. Subsequently, the samples were subjected to AlCl_3 specific reagent spraying. The process of isolation was conducted utilizing the vacuum liquid chromatography technique, employing n-hexane eluents in varying proportions: acetone (100:0, 90:10, 80:20, 70:30, 60:40, 50:50, 40:60, 30:70, 20:80, 10:90, 0:100). The isolates were subsequently subjected to purification by two-dimensional thin-layer chromatography (TLC) and multi-eluent TLC techniques in order to get a highly purified isolate, specifically referred to as isolate 4. The acquired isolates were further identified using the utilization of UV-Vis spectroscopy, which revealed absorption peaks at wavelengths of 230 nm and 270 nm. The infrared spectrophotometer exhibits absorption at a wave number of 3483.44 cm^{-1} , which suggests the existence of O-H groups. Additionally, an absorption at 1653.00 cm^{-1} indicates the presence of a C=O group, while an absorption at 1238.30 cm^{-1} suggests the presence of C-O groups. Furthermore, an absorption at 808.17 cm^{-1} indicates the existence of C-H groups. Identification can also be achieved through the utilization of specific reagents. Based on the aforementioned data, it may be inferred that the isolate under analysis belongs to the flavonoid class of compounds.

Keywords : Flavonoids; Isolation; Chromatography; Purple Passion Fruit
(*Passiflora edulis* Sims)