

INTISARI

Piriqueta racemosa (sin. *Turnera racemosa*) anggota Suku Passifloraceae memiliki ketersediaan yang melimpah, terutama di musim kemarau. Namun belum terdapat informasi mengenai pemanfaatannya sebagai tanaman obat. Penelitian ini dilakukan dengan tujuan untuk menganalisis golongan senyawa dan aktivitas antibakteri bagian daun dan batang tumbuhan *Piriqueta racemosa*.

Simplisia *Piriqueta racemosa* diamati secara makroskopi dan mikroskopi. Serbuk simplisia diekstraksi dengan etanol 70% dan dilakukan pemisahan ekstrak berdasarkan metode ekstraksi cair-cair dengan pelarut n-heksan, etil asetat dan metanol. Kemudian, ekstrak dan fraksi dianalisis kandungan golongan senyawa dengan metode kromatografi lapis tipis (KLT). Selanjutnya dilakukan uji aktivitas antibakteri bakteri *S. aureus* dan *E. coli* dengan metode difusi cakram.

Simplisia *Piriqueta racemosa* memiliki helaian daun berbentuk lonjong dan batang berbentuk silindris, terdapat banyak trikoma menjangat, bau khas, dan rasa agak pahit. Fragmen penciri *Piriqueta racemosa* berupa trikoma yang setiap berkasnya terdiri atas 4-6 rambut, epidermis yang terdiri 8-10 sel-sel palisade, stomata tipe anisositik, dan berkas pengangkut tipe cincin. Ekstrak, fraksi etil asetat dan fraksi air-metanol bagian daun dan batang mengandung golongan senyawa flavonoid, terpenoid, saponin, dan tanin. Ekstrak, fraksi etil asetat dan fraksi air-metanol memiliki aktivitas antibakteri *S. aureus* dan *E. coli*. Rata-rata zona hambat pada fraksi air-metanol konsentrasi 50% dan 25% berturut-turut, yaitu $1,62 \pm 0,05$ mm; $0,57 \pm 0,09$; pada fraksi etil asetat konsentrasi 50%, 25%, 12,5%, dan 6,25% berturut-turut, yaitu $14,35 \pm 0,19$ mm, $9,00 \pm 0,40$ mm, $6,40 \pm 0,48$ mm, dan $4,12 \pm 0,25$ mm. Pada ekstrak, konsentrasi 50%, 25%, 12,5%, dan 6,25% berturut-turut sebesar $5,50 \pm 0,41$ mm; $3,25 \pm 0,25$; $1,62 \pm 0,25$; dan $1,00 \pm 0,00$ mm.

Kata kunci: *Piriqueta racemosa*, *Turnera racemosa*, maserasi, antibakteri, difusi cakram

ABSTRACT

Piriqueta racemosa (syn. *Turnera racemosa*), part of the Passifloraceae family, is widely available, particularly in the dry season. However, there is currently no information regarding its applications as a medicinal plant. This research was carried out to examine the classes of compounds and the antibacterial activity of the leaf and stem parts of *Piriqueta racemosa*.

The *Piriqueta racemosa* simplicia were observed macroscopically and microscopically. The simplicia powder were extracted with 70% ethanol, followed by liquid-liquid extraction using n-hexane, ethyl acetate, and methanol as solvents. The extracts and fractions were analyzed for their phytochemical content using thin-layer chromatography (TLC). Antibacterial activity was then tested against *S. aureus* and *E. coli* using the disc diffusion method.

Macroscopically, the *Piriqueta racemosa* has oval leaves and cylindrical stems is, has abundant hispid trichomes, characteristic odor, and slightly bitter taste. Microscopically, the diagnostic features of *Piriqueta racemosa* include trichomes consisting of 4–6 hairs per cluster, an epidermis composed of 8–10 palisade cells, anisocytic-type stomata, and vascular bundles of the concentric type. The extract, ethyl acetate fraction, and aqueous-methanol fraction from the leaves and stems were found to contain flavonoids, terpenoids, saponins, and tannins. Both the extract and fractions exhibited antibacterial activity against *S. aureus* and *E. coli*. The average inhibition zones of the aqueous-methanol fraction at 50% and 25% concentrations were 1.62 ± 0.05 mm and 0.57 ± 0.09 mm, respectively. For the ethyl acetate fraction, inhibition zones at concentrations of 50%, 25%, 12.5%, and 6.25% were 14.35 ± 0.19 mm, 9.00 ± 0.40 mm, 6.40 ± 0.48 mm, and 4.12 ± 0.25 mm, respectively. The extract showed inhibition zones at concentrations of 50%, 25%, 12.5%, and 6.25% of 5.50 ± 0.41 mm, 3.25 ± 0.25 mm, 1.62 ± 0.25 mm, and 1.00 ± 0.00 mm, respectively.

Keywords: *Piriqueta racemosa*, *Turnera racemosa*, maceration, antibacterial, disc diffusion.