INTISARI

Selama ini pengobatan penyakit infeksi bakterial masih menggunakan antibiotika. Masalahnya telah terjadi peningkatan resistensi bakteri patogen terhadap antibiotika yang diresepkan secara luas dan relatif murah harganya seperti ampisilin. Tapak liman telah lama digunakan secara tradisional dalam pengobatan terhadap infeksi bakteri. Daun tapak liman diketahui memiliki kandungan utama senyawa flavonoid luteolin 7-glukosida. Flavonoid merupakan senyawa polifenol yang mempunyai aktivitas antibakteri, diantaranya terhadap Enterobacteriaceae. Penelitian ini bertujuan untuk mengetahui apakah ekstrak etanol daun tapak liman memiliki aktivitas antibakteri terhadap *Klebsiella pneumoniae* resisten ampisilin.

Penelitian ini merupakan penelitian eksperimental murni sederhana dengan rancangan acak lengkap pola satu arah. Uji identifikasi kandungan senyawa dalam daun tapak liman dilakukan dengan KLT dan uji daya antibakteri dilakukan dengan metode difusi teknik sumuran. *K. pneumoniae* resisten ampisilin diperlakukan dengan 5, 10, 20, 40 mg/ml ekstrak etanol daun tapak liman, selain itu sebagai kontrol resistensi digunakan larutan Na-ampisilin 10 μg/μl dan sebagai kontrol pelarut digunakan PEG-400. Data diameter zona hambat dianalisis dengan uji *Kolmogorov Smirnov* dilanjutkan dengan uji *Kruskall Wallis*.

Hasil uji Kromatografi Lapis Tipis dengan fase diam selulosa dan fase gerak BAW (4 : 1 : 5 v/v) dan asam asetat 15% menunjukkan bahwa daun tapak liman mengandung flavonoid. Hasil penelitian ini menunjukkan bahwa ekstrak etanol daun tapak liman tidak memiliki aktivitas antibakteri terhadap *K. pneumoniae* resisten ampisilin.

Kata kunci : *E. scaber* L., *K. pneumoniae*, resisten ampisilin

ABSTRACT

For years, antibiotic is used in the bacterial infection therapy, however the resistances of some pathogenic bacteria tend to increase, especially to widely prescribed and relatively cheap antibiotic, such as ampicillin. Because of that, it needs to develop new antibacterial drugs which is able to conquer the resistance problem and thus possess lower resistance risk. *Tapak liman* has long been traditionally used in bacterial infection treatments. The leaf of *tapak liman* mainly contains flavonoid luteolin-7-glucoside. Flavonoid is a polyphenolic compound with antibacterial activity, which some previous research found it effective to Enterobacteriaceae. The goal of this research was to find out the antibacterial activity of ethanolic extract of *tapak liman* leaf against the ampicillin resistant *Klebsiella pneumoniae*.

This research is a pure experimental research with one way complete random design. The research of antibacteria activity was applying well-diffusion method. The ampicillin resistant *K. pneumoniae* was treated with 5, 10, 20, and 40 mg/ml of ethanolic extract of *tapak liman* leaf. In addition to the treatment, 10 µg/µl of Na-ampicillin solution was being used as resistance control and PEG-400 as solvent control. Data was analyzed using *Kolmogorov Smirnov* test, then continued by *Kruskall Wallis* test.

The TLC which was applying microcrystal cellulose as stationary phase, and n-butanol-acetic acid-water (4 : 1 : 5 v/v) and 15% acetic acid solution as mobile phase exhibit that *tapak liman* leaf contains flavonoid. The result of this experiment suggested that ethanolic extract of *tapak liman* leaf does not possess antibacterial activity against ampicillin resistant *K. pneumoniae*.

Keywords : *E. scaber* L., *K. pneumoniae*, ampicillin resistant