UJI AKTIVITAS ANTIBAKTERI EKSTRAK KULIT BUAH PETAI (*Parkia speciosa Hassk.*) TERHADAP BAKTERI *Klebsiella sp.*

Skripsi

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ABSTRACT

ANTIBACTERIAL ACTIVITY TEST OF PETAI FRUIT PEEL EXTRACT AGAINST Klebsiella sp.

By

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The most frequent source of infectious diseases in medical settings continues to be Klebsiella sp. Due to its antibacterial properties, petai fruit peel extract (Parkia speciosa Hassk.) may one day serve as an alternate treatment for Klebsiella sp. infection. However, there is still a little amount of research regarding this. The purpose of this study was to observe the antibacterial activity in petai peel extract against Klebsiella sp.

This study was a pure experimental research study. Disk diffusion was used in this study. Petai fruit peel is rotated at 50°C to create a thick extract, which is then dissolved to create concentrations of 25%, 50%, 75%, and 100%. The Klebsiella sp bacteria suspension was inoculated into a tube containing MHB (Mueller Hilton Broth) which then vortexed and was then equalized with 0,5 Mac Farland Solution. The extract, as well as the positive control (amoxicillin) and negative control (methanol), were all soaked in sterile paper discs before being cultured in agar media. The inhibition zone surrounding the disc paper was then observed. Non-parametric analysis was used on the data that were collected.

The results showed that the inhibitory zones were 0.00 mm (25%), 7.83 mm (50%), 8.86 mm (75%), 10.60 mm (100%), and 8.17 mm (positive control) and 0.00 mm (negative control).

This study concluded that the antibacterial activity of petai peel at a concentration of 100% has the strongest inhibition zone diameter in preventing Klebsiella sp. growth and there was a difference between concentrations of petai peel extract.

Keywords: *Antibacterial, skin, Klebsiella sp., disc method, petai (Parkia speciosa Hassk.).*

ABSTRAK
UJI AKTIVITAS ANTIBAKTERI ESKTRAK KULIT BUAH PETAI (*Parkia speciosa Hassk*.) TERHADAP BAKTERI *Klebsiella sp.*

Oleh

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Klebsiella sp. masih menjadi penyebab penyakit infeksi yang terbanyak dilayanan kesehatan. Ekstrak kulit buah petai (Parkia speciosa Hassk.) berpotensi menjadi alternatif pengobatan infeksi *Klebsiella sp.*, terkait dengan aktivitas antibakterinya. Namun penelitian terkait ini masih minim. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak kulit buah petai terhadap bakteri *Klebsiella sp*.

Penelitian ini termasuk jenis penelitian eksperimen murni. Penelitian ini menggunakan metode difusi cakram. Kulit buah petai dilakukan *rotary* dengan suhu 50^0C dan menghasilkan ekstrak kental, kemudian di larutkan sehingga di peroleh konsentrasi 25%, 50%, 75%, 100%. Suspensi bakteri uji *Klebsiella sp.* diinokulasikan kedalam tabung yang berisi MHB *(Mueller Hiton Broth)* dan dilakukan *vortex*, kemudian disetarakan dengan larutan *Mac Farland* 0,5. Kertas cakram steril direndam dengan masing - masing konsentrasi ekstrak serta kontrol positif (amoksisilin) dan kontrol negatif (metanol) ditanam di media agar. Zona hambat disekitar kertas cakram kemudian diamati. Data yang diperoleh dianalisis secara non parametrik.

Hasil penelitian menunjukan zona hambat antara lain 0,00 mm (25%), 7,83 mm (50%), 8,86 mm (75%), 10,60 mm (100%), 8,17 mm (kontrol positif) dan 0,00 mm (kontrol negatif).

Kesimpulan penelitian ini didapatkan aktivitas antibakteri kulit buah petai (*Parkia speciosa Hassk*.) terhadap bakteri *Klebsiella sp.* pada konsentrasi 100% memiliki diameter zona hambat yang paling kuat dalam menghambat pertumbuhan bakteri *Klebsiella sp.* serta adanya perbedaan antar konsentrasi ekstrak kulit buah petai.

Kata kunci: Antibakteri, kulit, *Klebsiella sp.*, metode cakram, petai (*Parkia speciosa Hassk*.).