

Daya Hambat Ekstrak Ethanol Daun Kamboja (*Plumeria acuminata* Ait) Terhadap Pertumbuhan *Proteus mirabilis* Dan *Pseudomonas aeruginosa*

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ABSTRAK

Bakteri *Proteus mirabilis* dan *Pseudomonas aeruginosa* merupakan spesies patogen yang dapat menginfeksi luka pada manusia. Kandungan zat kimia yang terdapat di dalam daun kamboja yaitu *saponin*, *flavonoid* dan *polifenol* bersifat sebagai antibakteri. Tujuan penelitian ini untuk mengetahui daya hambat ekstrak ethanol daun kamboja terhadap pertumbuhan *Proteus mirabilis* dan *Pseudomonas aeruginosa* berdasarkan variasi konsentrasi 100 mg/ml, 120 mg/ml, 140 mg/ml dan 160 mg/ml dengan volume masing-masing 100 µl serta menganalisis daya hambat ekstrak ethanol daun kamboja dari berbagai variasi konsentrasi. Pengujian aktivitas anti bakteri menggunakan metode sumuran dengan konsentrasi 100 mg/ml, 120 mg/ml, 140 mg/ml dan 160 mg/ml. Hasil penelitian menunjukkan bahwa ekstrak ethanol daun kamboja tidak dapat menghambat pertumbuhan *Proteus mirabilis* dan *Pseudomonas aeruginosa*, sedangkan ekstrak ethanol daun kamboja dengan konsentrasi murni didapatkan hasil rata-rata diameter zona hambat sebesar 1,37 mm.

Kata kunci : *Proteus mirabilis*, *Pseudomonas aeruginosa*, Daun Kamboja, Daya Hambat

Inhibitory Power of Frangipani Leaf Ethanol Extract (*Plumeria acuminata* Ait) towards Growth of *Proteus Mirabilis* and *Pseudomonas Aeruginosa*

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ABSTRACT

Proteus mirabilis and *Pseudomonas aeruginosa* bacteria are pathogenic species which could cause infection to the human wound. Frangipani leaf has two chemical contents, those are saponin flavonoid and polifenol . They could be as anti-bacteria. This research aimed to find out how far inhibitory power level of frangipani leaf extract towards growth of *Proteus mirabilis* and *Pseudomonas aeruginosa* based on variation of concentration. It obtained of 100 mg/ml, 120 mg/ml, 140 mg/ml and 160 mg/ml with each volume level of 100 µl. It also analyzed inhibitory power of frangipani leaf ethanol extract which was from various variations of concentration. Anti-bacterial activity test used method of well with concentration level obtained of 100 mg/ml, 120 mg/ml, 140 mg/ml dan 160 mg/ml. Based on the findings, the result showed that frangipani leaf ethanol extract could not inhibit growth of *Proteus mirabilis* and *Pseudomonas aeruginosa*. Meanwhile, frangipani leaf ethanol extract with pure concentration level obtained result of the mean of inhibitory zone diameter of 1,37 mm.

Keywords : *Proteus mirabilis*, *Pseudomonas aeruginosa*, Frangipani Leaf, Inhibitory Power