

**UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL
FRAKSI N-HEKSANA DAN ETIL ASETAT DAUN PALA
(*Myristica fragrans*) TERHADAP *Shigella dysentri*
DAN *Streptococcus pyogenes***

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ABSTRAK

Masyarakat di Indonesia memanfaatkan tumbuhan obat secara tradisional karena efek samping yang lebih kecil dari obat yang dibuat secara sintetis. Daun pala (*Myristica fragrans*) merupakan contoh bahan obat yang telah dikenal oleh masyarakat dan sering digunakan sebagai obat tradisional. Tanaman pala berkhasiat sebagai pereda nyeri, mengurangi peradangan, meningkatkan sistem pencernaan, memperlancar sistem pernafasan dan antibakteri. Tumbuhan ini mengandung saponin, alkaloid, flavonoid, tanin, glikosida dan steroid/titerpenoid. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak etanol, fraksi n-heksana dan etil asetat daun pala terhadap *Shigella dysentri* dan *Streptococcus pyogenes*.

Ekstrak etanol daun pala dibuat dengan metode maserasi dengan pelarut etanol 96%, diuapkan hingga diperoleh ekstrak kental, kemudian ekstrak kental tersebut di fraksinasi menggunakan pelarut n-heksan dan etil asetat hingga diperoleh ekstrak fraksi n-heksana dan etil asetat. Kemudian dibuat larutan uji dengan variasi konsentrasi yaitu 10%, 20%, 30%, 40% dan 50%. Larutan uji kemudian diuji aktivitas antibakteri nya terhadap *Shigella dysentri* dan *Streptococcus pyogenes* dengan metode difusi agar menggunakan kontrol positif kloramfenikol dan kontrol negatif DMSO.

Hasil dari penelitian yang telah dilakukan menunjukkan nilai diameter zona hambat bakteri yang paling baik yaitu pada fraksi etil asetat terhadap *Shigella dysentri* dengan rata-rata zona hambat paling besar pada konsentrasi 50% sebesar 16,6mm yang termasuk kategori intermediet. Terhadap *Streptococcus pyogenes* menunjukkan zona hambat paling besar pada konsentrasi 50% dengan rata-rata zona hambat 18,1mm yang termasuk kategori intermediet. Berdasarkan penelitian ini, ekstrak fraksi etil asetat daun pala memiliki aktivitas antibakteri paling baik terhadap *Shigella dysentri* dan *Streptococcus pyogenes*.

Kata Kunci: *Myristica fragrans*, Fraksi, Aktivitas Antibakteri.

**ANTIBACTERI ACTIVITY TEST OF N-HEXTANOL
AND ETHYL ASETATE FRACTIONS OF PALA (*Myristica
fragrans*) LEAVES AGAINST *Shigella dysentery*
AND *Streptococcus pyogenes***

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ABSTRACK

People in Indonesia utilize medicinal plants traditionally because of the smaller side effects of synthetically made drugs. Nutmeg (*Myristica fragrans*) is an example of medicinal material that has been recognized by the community and is often used as traditional medicine. Nutmeg plants are efficacious as pain relievers, reduce inflammation, improve the digestive system, facilitate the respiratory system and antibacterial. This plant contains saponins, alkaloids, flavonoids, tannins, glycosides and steroids/titerpenoids. This study aims to determine the antibacterial activity of ethanol extracts, n-hexane and ethyl acetate fractions of nutmeg leaves against *Shigella dysentery* and *Streptococcus pyogenes*.

The ethanol extract of nutmeg leaves was made by maceration method with 96% ethanol solvent, evaporated until a thick extract was obtained, then the thick extract was fractionated using n-hexane and ethyl acetate solvents to obtain n-hexane and ethyl acetate fraction extracts. Then a test solution was made with a concentration variation of 10%, 20%, 30%, 40% and 50%. The test solution was then tested for antibacterial activity against *Shigella dysentery* and *Streptococcus pyogenes* by agar diffusion method using chloramphenicol positive control and DMSO negative control.

The results of the research that has been done show the best bacterial inhibition zone diameter value is in the ethyl acetate fraction against *Shigella dysentri* with the largest average inhibition zone at 50% concentration of 16.6mm which is included in the intermediate category. Against *Streptococcus pyogenes* showed the greatest inhibition zone at a concentration of 50% with an average inhibition zone of 18.1mm which is included in the intermediate category. Based on this study, the ethyl acetate fraction extract of nutmeg leaves has the best antibacterial activity against *Shigella dysentery* and *Streptococcus pyogenes*.

Keywords: *Myristica fragrans*, Fractions, Antibacterial Activity