

## INTISARI

**I PUTU ANANTA KRISNA WIDIARDAN, 2022, UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL FRAKSI *n*-HEKSAN, ETIL ASETAT DAN AIR DARI DAUN DADAP SEREP (*Erythrina lithosperma* Miq.) TERHADAP BAKTERI *Streptococcus mutans* , SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.**

Karies gigi ialah suatu kerusakan progresif dari enamel, dentin dan sementum, diawali oleh aktivitas mikroba pada bagian permukaan gigi yang rawan. Salah satu bakteri yang mengakibatkan karies gigi ialah *Streptococcus mutans*. Pada daun dadap serep (*Erythrina lithosperma* Miq.) banyak memiliki kandungan senyawa-senyawa antibakteri misalnya alkaloid, flavonoid, saponin dan tannin yang efektif untuk menekan munculnya bakteri. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak etanol, fraksi *n*-heksana, etil asetat dan air daun dadap serep pada bakteri *Streptococcus mutans*.

Serbuk daun dadap serep diekstraksi dengan metode maserasi menggunakan pelarut etanol 96%. Ekstrak daun dadap serep yang didapatkan selanjutnya difraksinasi dengan memakai pelarut *n*-heksana, etil asetat dan air. Ekstrak etanol dan fraksi diuji aktivitas antibakterinya dengan metode difusi dengan konsentrasi 20, 40 dan 60% untuk mengetahui fraksi teraktif. Fraksi teraktif selanjutnya diteruskan uji dilusi dengan variasi konsentrasi yaitu, 60; 30; 15; 7,5; 3,75; 1,875% untuk mengetahui Konsentrasi Bunuh Minimum.

Hasil penelitian menunjukkan bahwa ekstrak dan fraksi daun dadap serep mempunyai aktivitas antibakteri terhadap *Streptococcus mutans*. Fraksi etil asetat dengan konsentrasi 60% memiliki aktivitas antibakteri teraktif dengan rata-rata diameter zona hambat sebesar 15,5 mm. Konsentrasi Bunuh Minimum fraksi etil asetat terhadap bakteri *Streptococcus mutans* sebesar 7,5%.

---

Kata kunci : karies gigi, dadap serep, *Streptococcus mutans*, fraksi, antibakteri

## ABSTRACT

**I PUTU ANANTA KRISNA WIDIARDANA, 2022, ANTI-BACTERIAL ACTIVITY TEST OF n-HEXANE, ETHYL ACETATE AND WATER FRACTION OF ETHANOL EXTRACT FROM DADAP SEREP (*Erythrina lithosperma* Miq.) LEAVES AGAINST THE BACTERIA *Streptococcus mutans*, THESIS, FACULTY OF PHARMACEUTICAL, SETIA BUDI UNIVERSITY, SURAKARTA.**

Dental caries is a progressive destruction of enamel, dentin and cementum, initiated by microbial activity on the surface of the tooth that is prone to damage. One of the bacteria that causes dental caries is *Streptococcus mutans*. serep leaves (*Erythrina lithosperma* Miq.) contain many antibacterial compounds such as alkaloids, flavonoids, saponins and tannins which are effective in suppressing the emergence of bacteria. This study was aimed to determine the antibacterial activity of ethanol extract, *n*-hexane, ethyl acetate and dadap serep leaf water on *Streptococcus mutans* bacteria.

Dadap serep leaf powder was extracted by maceration method using 96% ethanol as solvent. Dadap serep leaf extract obtained was then fractionated using *n*-hexane, ethyl acetate and water as solvents. The ethanol extract and fraction were tested for their antibacterial activity by diffusion method with concentrations of 20, 40 and 60% to determine the most active fraction. The most active fraction was then continued with the dilution test with variations in concentration, namely, 60; 30; 15; 7.5; 3.75; 1.875% to determine the Minimum Kill Concentration.

The results showed that the extract and fraction of dadap serep leaves had antibacterial activity against *Streptococcus mutans*. The ethyl acetate fraction with a concentration of 60% had the most active antibacterial activity with an average inhibition zone diameter of 15.5 mm. Minimum killing concentration of ethyl acetate fraction against *Streptococcus mutans* was 7.5%.

---

Keywords: dental caries, dadap serep, *Streptococcus mutans*, fraction, antibacterial