

## ABSTRACT

**EKA PUTRI AGUSTIN.** 2020. ANTIBACTERIAL ACTIVITY TEST OF ETHANOL EXTRACT OF SAGA TREE LEAVES (*Adenanthera pavonina* L.) AGAINST THE BACTERIUM *Cutibacterium acnes*. SKRIPSI. PHARMACY STUDY PROGRAM. PERADABAN UNIVERSITY. PUDJONO DAN EKA TRISNAWATI

Email: [ekputri83@gmail.com](mailto:ekputri83@gmail.com)

*Acne vulgaris* or acne was a skin condition that teenagers often complain about which was caused by several factors, one of which was the *Cutibacterium acne* bacteria. Acne treatment could be done using natural ingredients such as saga tree leaves (*Adenanthera pavonina* L.). This study aims to determine the antibacterial activity of saga tree leaves (*Adenanthera pavonina* L.) against *Cutibacterium acne* bacteria. This research was an experimental laboratory research with One Way ANOVA test data analysis. In this study there were 2 control groups, namely positive control (erythromycin) and negative control (DMSO 10%) as well as 3 groups treated with ethanol extract of saga leaves with concentrations of 10%, 15% and 20%. During 24 hours of observation, the treatment group showed antibacterial activity against *Cutibacterium acne* bacteria due to the presence of flavonoids, alkaloids, saponins and tannins which had antibacterial potential. The average zone of inhibition at 10% concentration was 6.2 mm (medium category), 15% concentration was 8.3 mm (medium category), 20% concentration was 10.1 mm (strong category), positive control was 20, 3 mm (very strong category), and 0 mm in the negative control. Based on the results obtained, it could be concluded that the ethanol extract of saga tree leaves (*Adenanthera pavonina* L.) had antibacterial activity against *Cutibacterium acnes* bacteria with the best concentration, namely a concentration of 20% with an inhibition zone of 10.1 mm.

**Keywords:** *Acne vulgaris*, antibacterial, *Cutibacterium acnes*, disk diffusion, tree saga leaves (*Adenanthera pavonine* L.)

## ABSTRAK

**EKA PUTRI AGUSTIN.** 2020. UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL DAUN SAGA POHON (*Adenanthera pavonina L.*) TERHADAP BAKTERI *Cutibacterium acnes*. SKRIPSI. PROGRAM STUDI FARMASI. UNIVERSITAS PERADABAN. PUDJONO DAN EKA TRISNAWATI  
Email: [ekputri83@gmail.com](mailto:ekputri83@gmail.com)

*Acne vulgaris* atau jerawat merupakan kondisi kulit yang sering dikeluhkan remaja yang disebabkan oleh beberapa faktor, salah satunya yaitu bakteri *Cutibacterium acnes*. Pengobatan jerawat dapat dilakukan menggunakan bahan alam seperti daun saga pohon (*Adenanthera pavonina L.*). Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri daun saga pohon (*Adenanthera pavonina L.*) terhadap bakteri *Cutibacterium acnes*. Penelitian ini merupakan penelitian eksperimental laboratorium dengan analisis data uji *One Way ANOVA*. Pada penelitian ini terdapat 2 kelompok kontrol yaitu kontrol positif (eritromisin) dan kontrol negatif (DMSO 10%) serta 3 kelompok perlakuan ekstrak etanol daun saga pohon dengan konsentrasi 10%, 15%, dan 20%. Pada pengamatan selama 24 jam, kelompok perlakuan menunjukkan adanya aktivitas antibakteri terhadap bakteri *Cutibacterium acnes* karena adanya senyawa flavonoid, alkaloid, saponin, dan tanin yang berpotensi sebagai antibakteri. Rata-rata zona hambat pada konsentrasi 10% sebesar 6,2 mm (kategori sedang), konsentrasi 15% sebesar 8,3 mm (kategori sedang), konsentrasi 20% sebesar 10,1 mm (kategori kuat), kontrol positif sebesar 20,3 mm (kategori sangat kuat), dan 0 mm pada kontrol negatif. Berdasarkan hasil yang didapatkan, maka dapat disimpulkan bahwa ekstrak etanol daun saga pohon (*Adenanthera pavonina L.*) memiliki aktivitas antibakteri terhadap bakteri *Cutibacterium acnes* dengan konsentrasi yang paling baik yaitu konsentrasi 20% dengan zona hambat sebesar 10,1 mm.

**Kata kunci:** *Acne vulgaris*, antibakteri, *Cutibacterium acnes*, difusi cakram, daun saga pohon (*Adenanthera pavonine L.*)