

ABSTRAK

ANGGRAINI EKA SURYA., 2022 UJI AKTIVITAS ANTIBAKTERI KRIM EKSTRAK DAUN BELIMBING WULUH (*Averrhoa bilimbi* L) TERHADAP *Propionibacterium acnes*, PROPOSAL SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA, Dibimbing oleh Dr. apt. Ismi Rahmawati, M.Si. dan apt. Muhammad Dzakwan, M.Si.

Daun belimbing wuluh (*Averrhoa bilimbi* L.) simplisia yang dapat digunakan untuk pengobatan jerawat. Daun belimbing wuluh mempunyai kandungan senyawa yang berperan sebagai antibakteri yaitu flavonoid, saponin, tanin, dan triterpenoid/steroid. Daun belimbing wuluh mempunyai aktivitas antibakteri *Propionibacterium acnes*. Tujuan dari penelitian ini untuk mengetahui sediaan krim ekstrak daun belimbing wuluh memiliki aktivitas sebagai antibakteri terhadap bakteri *Propionibacterium acnes*.

Daun belimbing wuluh diekstraksi dengan metode maserasi menggunakan pelarut etanol 70%. Sediaan krim dibuat dalam tiga formulasi dengan variasi konsentrasi ekstrak 2,5%, 5%, 10%. Hasil sediaan krim diuji dengan parameter uji organoleptis, homogenitas, pH, viskositas, daya sebar, daya lekat, uji stabilitas, dan uji aktivitas terhadap bakteri *Propionibacterium acnes*.

Hasil penelitian ini menyatakan sediaan krim ekstrak belimbing wuluh F1, F2, dan F4 memenuhi standar mutu fisik dan stabilitas yang baik. Sediaan krim F1, F2, dan F3 dengan konsentrasi 2,5%, 5%, dan 10% mempunyai aktivitas antibakteri terhadap bakteri *Propionibacterium acnes*. Sediaan F3 dengan konsentrasi 10% mempunyai aktivitas terhadap bakteri *Propionibacterium acnes* yang paling tinggi, yaitu dengan rata-rata zona hambat 33,25 mm.

Kata kunci : krim, antibakteri, mutu fisik, stabilitas fisik, *Propionibacterium acnes*, daun belimbing wuluh (*Averrhoa bilimbi* L)

ABSTRACT

ANGGRAINI EKA SURYA., 2022 ANTIBACTERIAL ACTIVITY TEST OF WULUH (*Averrhoa bilimbi* L) LEAVES EXTRACT AGAINST *Propionibacterium acnes*, PROPOSAL OF THESIS, BACHELOR OF PHARMACY, FACULTY OF PHARMACY, UNIVERSITAS SETIA BUDI, SURAKARTA, Supervised by Dr. apt. Ismi Rahmawati, M.Si. and apt. Muhammad Dzakwan, M.Si.

Starfruit leaves (*Averrhoa bilimbi* L.) simplicia which can be used for acne treatment. Starfruit leaves contain compounds that act as antibacterial, namely flavonoids, saponins, tannins, and triterpenoids/steroids. Starfruit leaves have antibacterial activity of *Propionibacterium acnes*. The purpose of this study was to determine if the cream preparations of Star Fruit leaves leaf extract had antibacterial activity against *Propionibacterium acnes*.

Starfruit leaves were extracted by maceration method using 70% ethanol solvent. Cream preparations were made in three formulations with variations in extract concentrations of 2.5%, 5%, 10%. The results of the cream preparations were tested with organoleptic test parameters, homogeneity, pH, viscosity, spreadability, adhesion, stability test, and activity test against *Propionibacterium acnes*.

The results of this study stated that the cream preparations of starfruit extract F1, F2, and F4 met the standards of good physical quality and stability. Cream preparations F1, F2, and F3 with concentrations of 2.5%, 5%, and 10% have antibacterial activity against *Propionibacterium acnes* bacteria. F3 preparations with a concentration of 10% had the highest activity against *Propionibacterium acnes*, with an average inhibition zone of 33.25 mm.

Keywords : cream, antibacterial, physical quality, physical stability, *Propionibacterium acnes*, starfruit leaves (*Averrhoa bilimbi* L)