

INTISARI

RAMADHANI, S., 2018. UJI AKTIVITAS ANTIBAKTERI FRAKSI *n*-HEKSANA, KLOOROFORM, DAN AIR DARI EKSTRAK METANOL BUAH BELIMBING WULUH (*Averrhoa bilimbi* L.) TERHADAP *Shigella dysenteriae* ATCC 9361. SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Buah belimbing wuluh mengandung senyawa flavonoid, saponin, triterpenoid, dan tanin yang memiliki aktivitas antibakteri terhadap bakteri Gram positif dan Gram negatif. Tujuan penelitian ini adalah menguji aktivitas antibakteri ekstrak, fraksi *n*-heksana, kloroform, dan air dari buah belimbing wuluh (*Averrhoa bilimbi* L.) terhadap *Shigella dysenteriae* ATCC 9361.

Ekstraksi buah belimbing wuluh menggunakan metode perkolasi dengan pelarut metanol, kemudian difraksinasi menggunakan pelarut yang berbeda tingkat kepolarannya. Hasil ekstraksi dan fraksinasi dilakukan uji aktivitas antibakteri terhadap *Shigella dysenteriae* ATCC 9361 menggunakan metode difusi. Konsentrasi ekstrak metanol dan fraksi yang digunakan adalah 400 mg/ml; 200 mg/ml; 100 mg/ml; 50 mg/ml; 25 mg/ml;

Hasil dari penelitian ini menunjukkan bahwa ekstrak metanol, fraksi *n*-heksana, kloroform, dan air memiliki aktivitas antibakteri terhadap *Shigella dysenteriae* ATCC 9361. Hasil dari uji difusi menunjukkan bahwa fraksi yang memiliki aktivitas paling efektif terhadap *Shigella dysenteriae* ATCC 9361 adalah fraksi kloroform, dengan rata-rata diameter hambat sebesar 20,3 mm.

Kata kunci : buah belimbing wuluh, fraksinasi, *Shigella dysenteriae*, antibakteri.

ABSTRACT

RAMADHANI, S., 2018. ANTIBACTERIAL ACTIVITY OF n-HEXANE, CHLOROFORM, AND WATER FRACTIONS FROM THE METHANOL EXTRACT OF BILIMBI FRUIT (*Averrhoa bilimbi* L.) AGAINST *Shigella dysenteriae* ATCC 9361, Thesis, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

The fruit of bilimbi has contains flavonoid, saponin, triterpenoid, and tannin compounds which have antibacterial activity against Gram positive and Gram negative bacteria. The purpose of this study was to test the antibacterial activity of *n*-hexane, chloroform, and water fractions from methanol extract of bilimbi fruit (*Averrhoa bilimbi* L.) against *Shigella dysenteriae* ATCC 9361.

The extraction of bilimbi fruit using percolation method with methanol as solvent, and then the fractionation was use the different level polarity diluents. The results of extraction and fractionations was tested of antibacterial activity agains *Shigella dysenteriae* ATCC 9361 using diffusion method. The consentration of methanol extract and fractions was 400 mg/ml; 200 mg/ml; 100 mg/ml; 50 mg/ml; 25 mg/ml.

The result of this study showed that methanol extract, *n*-hexane, chloroform, and water fractions was have antibacterial activity against *Shigella dysenteriae* ATCC 9361. The result of the diffusion test shows that the fraction that have the most affective activity against *Shigella dysenteriae* ATCC 9361 was fraction of choloroform, with average inhibitory diameter 20,3 mm.

Key words : bilimbi fruit, fractionation, *Shigella dysenteriae* ATCC 9361, antibacterial.