

## ABSTRAK

**Anni Salsabila Putri, 2000, FORMULASI SEDIAAN MASKER GEL PEEL OFF BELIMBING WULUH (*Averrhoa Bilimbi* L.) DAN UJI AKTIVITAS ANTIBAKTERI TERHADAP *Propionibacterium acnes* SERTA UJI KEAMANAN DENGAN GELLING AGENT PVA PADA KULIT KELINCI, SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh Dwi Ningsih, S.Si., M.Farm., Apt. dan Anita Nilawati, S.Farm., M.Farm., Apt.**

Gangguan keseimbangan hormon kulit wajah menimbulkan jerawat. Salah satu cara untuk melindungi kulit wajah adalah dengan masker gel *peel off*. Buah belimbing wuluh mengandung flavonoid yang berfungsi antibakteri. Penelitian ini bertujuan membuat sediaan masker gel *peel off* ekstrak belimbing wuluh, dengan mutu fisik yang baik, dan diuji aktivitasnya terhadap *Propionibacterium acnes*, serta dilakukan uji keamanan pada kulit kelinci.

Metode eksperimental digunakan dengan diuji aktivitas antibakteri terhadap *Propionibacterium acnes*. Sediaan masker gel *peel off* belimbing wuluh dibuat enam formula, dievaluasi uji mutu fisik, uji aktivitas antibakteri terhadap *Propionibacterium acnes*, uji iritasi pada kulit kelinci.

Hasil pengujian dianalisis, diperoleh variasi konsentrasi ekstrak dan PVA dapat diformulasikan menjadi sediaan masker gel *peel off* dengan mutu fisik yang baik pada parameter organoleptis, homogenitas, pH, waktu mengering, dan viskositas. Kemudian ekstrak belimbing wuluh (*Averrhoa Bilimbi* L.) 20 % dan PVA 10 % memiliki diameter hambat 25 mm, ekstrak 25 % dan PVA 12 % memiliki diameter hambat 26,67 mm, serta ekstrak 30 % dan PVA 14 % memiliki diameter hambat 29,33 mm, sehingga ekstrak belimbing wuluh dengan PVA memiliki aktivitas antibakteri terhadap *Propionibacterium acnes*. Hasil uji iritasi sediaan masker gel *peel off* menunjukkan bahwa sediaan FI sampai FVI tidak mengiritasi kulit kelinci serta formula dengan mutu fisik dan aktivitas antibakteri baik serta tidak iritatif terhadap kulit hewan uji adalah FVI.

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**Kata Kunci :** ekstrak belimbing wuluh, PVA, masker gel *peel off*, *Propionibacterium acnes*, uji iritasi pada kulit kelinci.

## ABSTRACT

**Anni Salsabila Putri, 2000, FORMULATION OF THE PREPARATION OF BILIMBI (*Averrhoa Bilimbi* L.) PEEL OFF GEL MASK AND ANTIBACTERIAL ACTIVITY TEST AGAINST *Propionibacterium acnes* AND SAFETY TEST WITH PVA GELLING AGENT ON RABBIT SKIN, THESIS, S1 PHARMACEUTICAL, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by Dwi Ningsih, S.Si., M.Farm., Apt. and Anita Nilawati, S.Farm., M.Farm., Apt.**

Disruption of the hormonal balance of facial skin causes acne. One way to protect facial skin is with a peel off gel mask. Wuluh star fruit contains flavonoids which function as antibacterial. This study aims to make a peel-off gel mask preparation of star fruit extract, with good physical quality, and tested its activity against *Propionibacterium acnes*, and tested its safety on rabbit skin.

The experimental method was used to test the antibacterial activity against *Propionibacterium acnes*. There were six formulations of peel off starfruit peel off gel mask, evaluated for physical quality test, antibacterial activity test against *Propionibacterium acnes*, and irritation test on rabbit skin.

The test results were analyzed, obtained variations in the concentration of extracts and PVA can be formulated into a peel off gel mask preparation with good physical quality on organoleptic parameters, homogeneity, pH, drying time, and viscosity. Then the extract of starfruit (*Averrhoa Bilimbi* L.) 20% and PVA 10% had an inhibitory diameter of 25 mm, extract 25% and PVA 12% had an inhibitory diameter of 26.67 mm, and extract 30% and PVA 14% had an inhibitory diameter of 29, 33 mm, so that starfruit extract with PVA has antibacterial activity against *Propionibacterium acnes*. The results of the irritation test of the peel off gel mask preparation showed that the FI to FVI preparations did not irritate the rabbit skin and the formula with good physical quality and antibacterial activity and was not irritating to the skin of the test animals was FVI.

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**Keywords:** starfruit extract, PVA, peel off gel mask, *Propionibacterium acnes*, irritation test on rabbit skin