

## ABSTRAK

**Candra, F. F. A., 2022 UJI MUTU FISIK MASKER GEL PEEL-OFF LENDIR BEKICOT (*Achatina fulica*) DAN UJI AKTIVITAS ANTIBAKTERI TERHADAP BAKTERI *Staphylococcus epidermidis* ATCC 12228, SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.**

Bekicot (*Achatina fulica*) memiliki kandungan lendir dan sering dianggap menjijikkan. Lendir bekicot ditemukan memiliki kandungan protein *Achasin* dalam jumlah besar yang mempunyai efek antibakteri. Antibakteri tersebut mampu menghambat bakteri pemicu jerawat *Staphylococcus epidermidis* dengan konsentrasi 10%. Tujuan dari penelitian ini adalah untuk mengetahui sediaan masker gel *peel-off* lendir bekicot dapat memenuhi syarat uji mutu fisik dan stabilitas yang baik serta mempunyai aktivitas antibakteri terhadap bakteri *Staphylococcus epidermidis* dengan mengamati zona hambat yang terbentuk.

Penelitian dilaksanakan secara eksperimental, sampel lendir bekicot (*Achatina fulica*) diformulasikan ke dalam sediaan masker gel *peel-off* dengan tiga variasi konsentrasi yaitu F1 15%, F2 25%, dan F3 35%. Kemudian dilakukan pengujian mutu fisik dan stabilitas dipercepat. Ketiga formula tersebut dilakukan uji aktivitas antibakteri dengan metode difusi sumuran. Data hasil uji mutu fisik dan pengujian zona hambat bakteri yang terbentuk dianalisa dengan SPSS (*Statistical Package for the Social Sciences*). .

Evaluasi mutu fisik pada sediaan masker gel *peel-off* dilakukan terhadap beberapa parameter seperti organoleptis, homogenitas, pH, viskositas, daya sebar, waktu mengering, dan stabilitas dipercepat dengan metode *cycling test*. Hasil menunjukkan bahwa formula 1,2 dan 3 memiliki mutu fisik dan stabilitas yang baik. Ketiga formula dilanjutkan uji aktivitas antibakteri dengan hasil daya hambat pada formula 1 sebesar 11,51 mm, formula 2 sebesar 14,27 mm, dan formula 3 sebesar 17,45 mm. Hasil menunjukkan bahwa formula 3 memiliki daya hambat yang paling efektif dan tergolong dalam antibakteri dengan kategori sedang.

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Kata kunci : Lendir bekicot, Masker gel *peel-off*, Antibakteri, *Staphylococcus epidermidis*

## ABSTRACT

**Candra, F. F. A., 2022, PHYSICAL QUALITY TESTING OF Snail Mucus (*Achatina fulica*) PEEL-OFF GEL MASK AND ANTIBACTERIAL ACTIVITY TEST AGAINST *Staphylococcus epidermidis* BACTERIA ATCC 12228. SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.**

Snails (*Achatina fulica*) contain mucus and are often considered disgusting. Snail slime was found to contain large amounts of Achasin protein which has an antibacterial effect. The antibacterial was able to inhibit the acne-causing bacteria *Staphylococcus epidermidis* at a concentration of 10%. The purpose of this study was to determine whether the snail mucus peel-off gel mask preparation could meet the requirements for good physical quality and stability and have antibacterial activity against *Staphylococcus epidermidis* bacteria by observing the inhibition zone formed.

The research was carried out experimentally, samples of snail mucus (*Achatina fulica*) were formulated into a peel-off gel mask preparation with three concentration variations, namely F1 15%, F2 25%, and F3 35%. Then the physical quality and stability tests were carried out. The three formulas were tested for antibacterial activity using the well diffusion method. The data from the physical quality test and the test of the bacterial inhibition zone formed were analyzed by SPSS (Statistical Package for the Social Sciences).

Evaluation of the physical quality of the peel-off gel mask preparation was carried out on several parameters such as organoleptic, homogeneity, pH, viscosity, dispersion, drying time, and accelerated stability using the cycling test method. The results showed that formulas 1,2 and 3 had good physical quality and stability. The three formulas were tested for antibacterial activity with the results of the inhibition in formula 1 being 11.51 mm, formula 2 being 14.27 mm, and formula 3 being 17.45 mm. The results showed that formula 3 had the most effective inhibition and was classified as an antibacterial with a medium category.

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**Keywords** : Snail mucus, Peel-off gel mask, Antibacterial, *Staphylococcus epidermidis*