

ABSTRAK**Uji Aktivitas Enzim Protease dari Getah Pepaya Muda (*Carica papaya L.*) sebagai Antijerawat dan Aplikasinya pada Masker Gel peel-off****Oleh :****Anisa Puspita Dewi****11181058**

Penggunaan bahan alam menjadi obat cenderung semakin tinggi, Salah satu tanaman yang digunakan sebagai bahan obat adalah Tanaman Pepaya (*Carica papaya L.*). Pepaya mengandung senyawa kimia yang mempunyai sifat antiseptik, antiinflamasi, antifungal, dan antibakteri. Pada bagian getah papaya muda mengandung beberapa macam enzim protease, di antaranya ialah papain, kimopapain dan lizosim. Penelitian ini bertujuan untuk menguji aktivitas enzim protease dari getah papaya yang berkhasiat sebagai antijerawat dan aplikasinya pada sediaan masker gel peel-off. Selain untuk mengobati jerawat berfungsi juga mengangkat sel kulit mati, sehingga kulit bisa lebih halus. Enzim protease dibuat menggunakan metode pengendapan ammonium sulfat dengan variasi kejenuhan 20%, 40%, 60% dan 80% dan didialisis menggunakan membran selofan. Uji aktivitas enzim protease dengan metode kunitz. Uji aktivitas antibakteri enzim protease menggunakan metode cakram. Untuk uji aktivitas antijerawat sediaan masker gel peel off menggunakan metode difusi sumuran. Dilakukan uji evaluasi pada sediaan masker gel peel off. Hasil dari uji aktivitas enzim protease menunjukan pada variasi kejenuhan 80% dengan nilai aktivitas 86 unit/ml. Hasil uji aktivitas antijerawat enzim protease dengan nilai zona hambat rata-rata 9 mm. Hasil uji aktivitas antijerawat masker gel peel off dengan metode difusi sumuran menunjukan seluruh formula memiliki aktivitas sebagai antijerawat. Hasil uji evaluasi masker gel peel off seluruh formulasi memenuhi syarat.

Kata kunci : Enzim protease, pepaya, Antijerawat, Masker Gel Peel Off

ABSTRACT**Test of Protease Enzyme Activity from Young Pepaya Sap (*Carica papaya* L.) as Anti-acne and Its Application on Peel-off Gel Masks****By :****Anisa Puspita Dewi****11181058**

The use of natural ingredients into medicine tends to be natural. One of the plants used as medicinal materials is Tanaman Pepaya (*Carica papaya* L.). Papaya contains chemical compounds that have antiseptic, anti-inflammatory, antifungal, and antibacterial properties. In the sap of young papaya contains several kinds of protease enzymes, among which are papain, kimopapain and lizosim. This study aims to test the activity of the protease enzyme from papaya sap which is efficacious as an anti-acne and its application to peel-off gel mask preparations. In addition to treating acne, it also removes dead skin cells, so that the skin can be smoother. The protease enzyme is made using the method of deposition of ammonium sulfate with saturation variations of 20%, 40%, 60% and 80% and is dialyzed using a cellophane membrane. Test the activity of the protease enzyme by the kunitz method. Test the antibacterial activity of the enzyme protease using the disc method. For the test of anti-acne activity of the peel off gel mask preparation using the well diffusion method. An evaluation test was carried out on the preparation of the peel off gel mask. The results of the protease enzyme activity test showed a saturation variation of 80% with an activity value of 86 units / ml. The test results of the anti-acne activity of the protease enzyme with an average inhibition zone value of 9 mm. The results of the anti-acne activity test of the peel off gel mask with the well diffusion method show that all formulas have activity as anti-acne. The results of the evaluation test of the gel peel off mask of all formulations are qualified.

Keywords : Enzyme protease, papaya, Anti-acne, Gel Peel Off Mask