

Formulasi dan Uji Antibakteri Sediaan Sabun Mandi Cair Ekstrak Etanol Daun Ubi Jalar Ungu (*Ipomoea Batatas Poir*) terhadap Bakteri *Escherichia coli*

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INTISARI

Ubi jalar ungu merupakan salah satu tanaman yang banyak dijumpai di Indonesia. Daun ubi jalar ungu memiliki kandungan flavonoid (antosianin, rutin, dan quersetin), saponin dan polifenol yang memiliki aktivitas sebagai antibakteri. Tujuan penelitian ini yaitu untuk membuat formulasi sediaan sabun mandi cair dan uji antibakterinya pada ekstrak dan sediaan sabun mandi cair terhadap bakteri *Escherichia coli*. Daun ubi jalar ungu diekstraksi menggunakan etanol 70% dengan metode maserasi hingga didapatkannya ekstrak kental. Kemudian ekstrak kental ini diuji aktivitas antibakterinya menggunakan metode difusi. Formula sediaan sabun mandi cair dibuat dengan tiga variasi kadar ekstrak etanol daun ubi jalar ungu, sebesar 4% (F1), 6% (F2) dan 8% (F3). Ketiga formula (F1, F2, F3) diuji sifat fisiknya yakni uji organoleptis pH, tinggi busa, homogenitas, daya sebar, dan viskositas. Uji aktivitas antibakteri dari sediaan sabun mandi cair ekstrak etanol daun ubi jalar ungu terhadap bakteri *Escherichia coli* dilakukan menggunakan metode *time-kill*. Hasil pengujian ekstrak etanol daun ubi jalar ungu didapatkan konsentrasi yang efektif yaitu sebesar 4%, 6%, dan 8% dengan rata-rata zona hambat secara berurutan sebesar 9,03 mm; 9,40 mm; dan 9,73 mm. Ketiga formulasi dengan konsentrasi ekstrak etanol daun ubi jalar ungu dilakukan pengujian sifat fisik yang hasilnya sesuai dengan SNI nomor 06-4085-1996. Hasil pengujian aktivitas antibakteri sediaan sabun mandi cair ekstrak etanol daun ubi jalar ungu pada ketiga formulasi mampu membunuh bakteri *Escherichia coli* pada menit ke-3.

Kata kunci : Daun ubi jalar ungu (*Ipomoea batatas Poir*), sabun mandi cair, *Escherichia coli*, *Time-kill assay*

Formulation and Antibacterial Activity of Liquid Bath Soap of Purple Sweet Potato Leaf (*Ipomoea batatas* Poir) Ethanolic Extract against *Escherichia coli*

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ABSTRACT

Purple sweet potato is one of the plants that oftenly found in Indonesia. Its leaves contain of flavonoids (anthocyanin, rutin, and quercetin), saponins and polyphenols that have antibacterial acitivity. The purpose of this research are to make liquid bath soap formula and to test the antibacterial on liquid bath soap extract against *Escherichia coli* bacteriy. Purple sweet potato leaf extracted by 70% of ethanol with maseration method until it gets thick. Then the antibacterial activity of the thick extract tested with difusion method. The liquid bath soap formula was made by three variation level of the ethanolic extracts of purple sweet potato leaves, as big as 4% (F1), 6% (F2) and 8% (F3). The physical characteristic of these three formulas (F1, F2, F3) tested, that were organoleptic, pH, foam height, homogeneity, spread ability, and viscosity. The antibacterial activity test from liquid bath soap with ethanolic extract of purple sweet potato leaves was done by using *time-kill* method. The test results of purple sweet potato leaves ethanol extract obtained an effective concentration of 4%, 6%, and 8% with the average inhibition zone sequentially are 9.03 mm; 9.40 mm; and 9.73 mm. The three formulations with concentration of purple sweet potato leaves ethanol extract tested for physical properties whose results are in accordance with SNI number 06-4085-1996. The test results of antibacterial activity of purple sweet potato leaves ethanol extract liquid bath soap on all three formulations are able to kill *Escherichia coli* bacteria in the third minute.

Keywords : Purple sweet potato leaves (*Ipomoea batatas* Poir), liquid bath soap, *Escherichia coli*, *Time-kill assay*