

INTISARI

Kencur (*Kaempferia galanga* L.) merupakan salah satu obat tradisional, yang rimpangnya dipercaya dapat digunakan pada pengobatan batuk berdahak. Untuk membuktikan kebenarannya perlu dilakukan penelitian yang bertujuan untuk mengetahui daya ekspektoran perasan rimpang kencur terhadap larutan mukus secara *in vitro*.

Penelitian ini termasuk penelitian eksperimental sederhana dengan rancangan penelitian acak lengkap pola satu arah. Larutan uji diperoleh dengan cara perasan segar dengan variasi kadar larutan yang digunakan adalah kadar 0,5 % ; 1 % ; 2 % ; 4 % ; 8 % ; dan 16 %. Larutan diuji daya ekspektorannya dengan melihat kemampuan menurunkan viskositas larutan mukus menggunakan alat viskosimeter Ostwald – Cannon – Fenske dan piknometer yang dipaparkan pada pH 7, temperatur $27 \pm 0,5^{\circ}\text{C}$. Hasil viskositas larutan kontrol positif (Gliserilguaiakolat 2 %), kontrol negatif, dan larutan uji berturut-turut adalah $0,96 \pm 0,002$; $1,26 \pm 0,008$; $1,03 \pm 0,005$; $0,98 \pm 0,0073$; $0,90 \pm 0,004$; $0,89 \pm 0,005$; $0,79 \pm 0,004$; $0,76 \pm 0,008$ cp. Dari grafik hubungan kadar larutan uji (%) dengan viskositas larutan mukus (cp) dapat dilihat penurunan viskositas mukus yang sebanding dengan bertambahnya kadar larutan uji. Data viskositas dianalisis dengan uji Analisis Variansi (ANOVA) satu arah, karena hasilnya signifikan dilanjutkan dengan uji *least-significant difference* dengan taraf kepercayaan 95 %.

Hasil statistik uji Analisis Variansi (ANOVA) satu jalan dengan taraf kepercayaan 95% menunjukkan bahwa pemberian perasan rimpang kencur dengan kadar 0,5 ; 1 ; 2 ; 4 ; 8 ; dan 16% berbeda bermakna terhadap kontrol negatif dan positif. Dengan demikian dapat disimpulkan bahwa rimpang kencur mempunyai daya ekspektoran yang ditandai dengan penurunan viskositas larutan mukus sapi.

ABSTRACT

Galingale (*Kaempferia galanga* L.) is one of traditional medicines, which its rhizome can be used for cough. To prove this, there was done a research to know the expectorant power of galingale rhizome distillation toward mucus solution *in vitro*.

This research was a simple experimental research with one way pattern complete random research. Squeezing with some variations of solution concentrations got the tested solution. They were 0,5%; 1%; 2%; 4%; 8%; and 16%. The solutions were tested by looking at the ability to decrease viscosity of mucus solution using Ostwald – Cannon – Fenske viscosimeter tool and picnometer which was flattened at pH 7, temperature of $27 \pm 0,5^{\circ}\text{C}$. The result of positive control solution and the tested solution were $0,96 \pm 0,002$; $1,26 \pm 0,008$; $1,03 \pm 0,005$; $0,98 \pm 0,0073$; $0,90 \pm 0,004$; $0,89 \pm 0,005$; $0,79 \pm 0,004$; $0,76 \pm 0,008$ cp. Based on the relation graphic of the tested solution concentration (%) with the viscosity of mucus solution (cp) could be seen the decrease of mucus viscosity which was the same as the increase of the tested solution level. The data of viscosity were analyzed used Variant Analysis test (ANOVA) of one way, because the result was significant then, it was continued by having *least - significant - difference* test with 95 % level of trust.

The result of ANOVA test showed that the giving of galingale rhizome distillation with 0,5; 1; 2; 4; 8; and 16 % were different significantly toward the negative control and positive one. Then, it could be concluded that the galingale rhizome had expectorant power signed by the decrease of cow mucus solution viscosity.