

LAMPIRAN

Lampiran Gambar

1. Penimbangan Serbuk Simplisia Biji *Carica pubescens*



2. Penyaringan Ekstrak

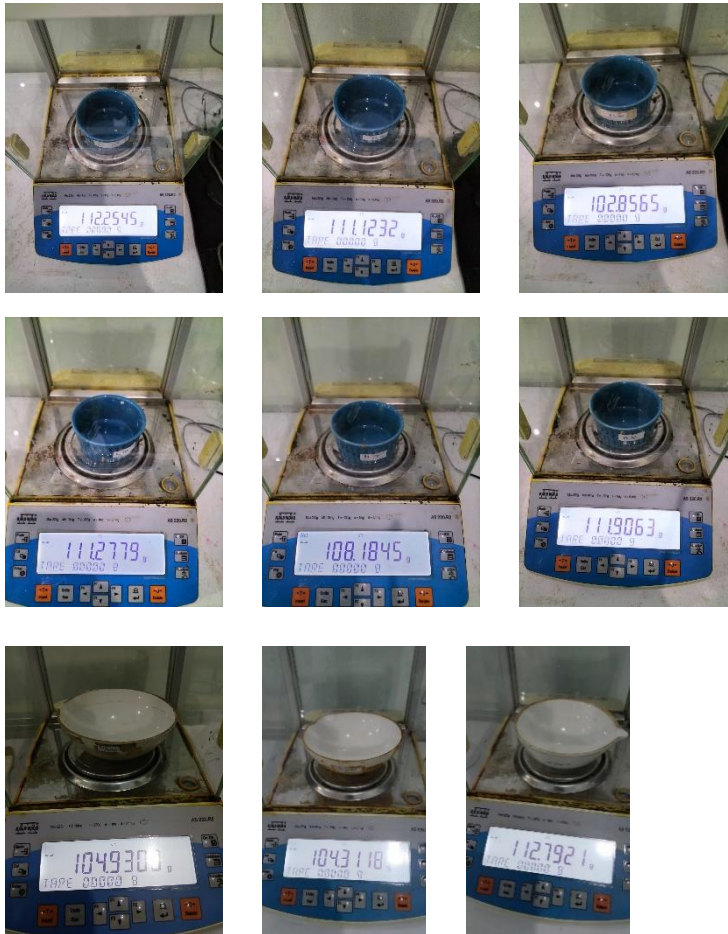


3. Penimbangan Ekstrak

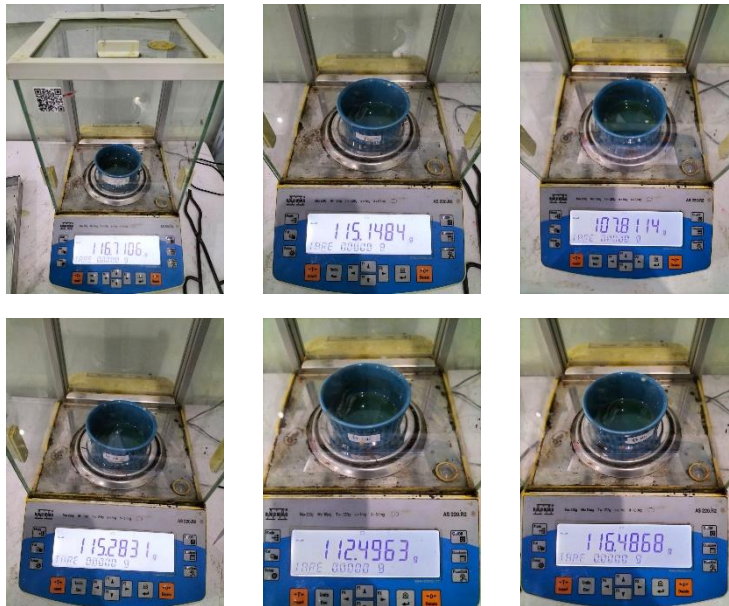




4. Penimbangan Cawan Kosong



5. Penimbangan Cawan Kosong + Ekstrak



6. Larutan DPPH 50ppm



7. Pengenceran Larutan Uji



8. Inkubasi Sampel Uji



Lampiran Perhitungan

1. Perhitungan Rendemen Ekstrak Etil Asetat Biji *Carica pubescens*

120 menit

Replikasi 1

$$\begin{aligned}\% \text{Rendemen} &= \frac{116,7106\text{g} - 112,2545\text{g}}{15,0177\text{g}} \times 100\% \\ &= 29,67\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Rendemen} &= \frac{115,1484\text{g} - 111,1232\text{g}}{15,0177\text{g}} \times 100\% \\ &= 26,80\%\end{aligned}$$

Replikasi 3

$$\begin{aligned}\% \text{Rendemen} &= \frac{107,8114\text{g} - 102,8565\text{g}}{15,0178\text{g}} \times 100\% \\ &= 32,99\%\end{aligned}$$

Rata – Rata %Rendemen

$$\begin{aligned}\% \text{Rendemen} &= \frac{29,67\% + 26,80\% + 32,99\%}{3} \\ &= 29,82\%\end{aligned}$$

150 menit

Replikasi 1

$$\begin{aligned}\% \text{Rendemen} &= \frac{115,2831\text{g} - 111,2779\text{g}}{15,01334\text{g}} \times 100\% \\ &= 26,68\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Rendemen} &= \frac{112,4963\text{g} - 108,1845\text{g}}{15,0132\text{g}} \times 100\% \\ &= 28,72\%\end{aligned}$$

Replikasi 3

$$\begin{aligned}\% \text{Rendemen} &= \frac{116,4868\text{g} - 111,9063\text{g}}{15,0131\text{g}} \times 100\% \\ &= 30,51\%\end{aligned}$$

Rata – Rata %Rendemen

$$\begin{aligned}\% \text{Rendemen} &= \frac{26,68\% + 28,72\% + 30,51\%}{3} \\ &= 28,64\%\end{aligned}$$

180 menit Replikasi 1

$$\begin{aligned}\% \text{Rendemen} &= \frac{109,3104\text{g} - 104,9308\text{g}}{15,0274\text{g}} \times 100\% \\ &= 29,14\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Rendemen} &= \frac{108,6098\text{g} - 104,3118\text{g}}{15,0853\text{g}} \times 100\% \\ &= 28,49\%\end{aligned}$$

Replikasi 3

$$\begin{aligned}\% \text{Rendemen} &= \frac{117,1755\text{g} - 112,7921\text{g}}{15,0266\text{g}} \times 100\% \\ &= 29,17\%\end{aligned}$$

Rata – Rata %Rendemen

$$\begin{aligned}\% \text{Rendemen} &= \frac{29,14\% + 28,49\% + 29,17\%}{3} \\ &= 28,93\%\end{aligned}$$

2. Perhitungan Pengenceran

Larutan Uji (Sampel)

$$\begin{aligned}30000 \text{ ppm} \times V_1 &= 9000 \text{ ppm} \times 10 \text{ ml} \\ V_1 &= 3 \text{ ml}\end{aligned}$$

$$\begin{aligned}30000 \text{ ppm} \times V_1 &= 12000 \text{ ppm} \times 10 \text{ ml} \\ V_1 &= 4 \text{ ml}\end{aligned}$$

$$\begin{aligned}30000 \text{ ppm} \times V_1 &= 15000 \text{ ppm} \times 10 \text{ ml} \\ V_1 &= 5 \text{ ml}\end{aligned}$$

$$\begin{aligned}30000 \text{ ppm} \times V_1 &= 18000 \text{ ppm} \times 10 \text{ ml} \\ V_1 &= 6 \text{ ml}\end{aligned}$$

$$\begin{aligned}30000 \text{ ppm} \times V_1 &= 21000 \text{ ppm} \times 10 \text{ ml} \\ V_1 &= 7 \text{ ml}\end{aligned}$$

Larutan Pembanding

$$\frac{100 \text{ ppm} \times V_1}{V_1} = \frac{10 \text{ ppm} \times 10 \text{ ml}}{1 \text{ ml}}$$

$$\frac{10 \text{ ppm} \times V_1}{V_1} = \frac{2 \text{ ppm} \times 10 \text{ ml}}{2 \text{ ml}}$$

$$\frac{10 \text{ ppm} \times V_1}{V_1} = \frac{3 \text{ ppm} \times 10 \text{ ml}}{3 \text{ ml}}$$

$$\frac{10 \text{ ppm} \times V_1}{V_1} = \frac{4 \text{ ppm} \times 10 \text{ ml}}{4 \text{ ml}}$$

$$\frac{10 \text{ ppm} \times V_1}{V_1} = \frac{5 \text{ ppm} \times 10 \text{ ml}}{5 \text{ ml}}$$

3. Perhitungan % Inhibisi**- Larutan Pembanding****(2 ppm)**

$$\% \text{inhibisi} = \frac{0,773 - 0,608}{0,773} \times 100\% = 21,34\%$$

(3 ppm)

$$\% \text{inhibisi} = \frac{0,773 - 0,520}{0,773} \times 100\% = 32,72\%$$

(4 ppm)

$$\% \text{inhibisi} = \frac{0,773 - 0,429}{0,773} \times 100\% = 44,50\%$$

(5 ppm)

$$\% \text{inhibisi} = \frac{0,773 - 0,366}{0,773} \times 100\% = 52,65\%$$

(6 ppm)

$$\% \text{inhibisi} = \frac{0,773 - 0,267}{0,773} \times 100\% = 65,45\%$$

- Larutan Uji (Sampel)**120 menit****9000ppm****Replikasi 1**

$$\% \text{Inhibisi} = \frac{0,770 - 0,436}{0,770} \times 100\% = 43,38\%$$

$$\begin{aligned} \text{Replikasi 2} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,404}{0,770} \times 100\% \\ &= 47,53\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 3} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,413}{0,770} \times 100\% \\ &= 37,34\% \end{aligned}$$

12000ppm

9000ppm

$$\begin{aligned} \text{Replikasi 1} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,373}{0,770} \times 100\% \\ &= 51,56\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 2} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,345}{0,770} \times 100\% \\ &= 55,19\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 3} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,347}{0,770} \times 100\% \\ &= 54,94\% \end{aligned}$$

15000ppm

$$\begin{aligned} \text{Replikasi 1} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,323}{0,770} \times 100\% \\ &= 58,05\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 2} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,306}{0,770} \times 100\% \\ &= 60,26\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 3} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,293}{0,770} \times 100\% \\ &= 61,95\% \end{aligned}$$

18000ppm

$$\begin{aligned} \text{Replikasi 1} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,238}{0,770} \times 100\% \\ &= 69,09\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 2} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,257}{0,770} \times 100\% \\ &= 66,62\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 3} \\ \% \text{Inhibisi} &= \frac{0,770 - 0,230}{0,770} \times 100\% \\ &= 70,13\% \end{aligned}$$

21000ppm

Replikasi 1

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,770 - 0,200}{0,770} \times 100\% \\ &= 74,03\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,770 - 0,200}{0,770} \times 100\% \\ &= 74,03\%\end{aligned}$$

Replikasi 3

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,770 - 0,200}{0,770} \times 100\% \\ &= 74,03\%\end{aligned}$$

150 menit**9000ppm**

Replikasi 1

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,476}{0,771} \times 100\% \\ &= 38,3\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,364}{0,771} \times 100\% \\ &= 52,79\%\end{aligned}$$

Replikasi 3

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,394}{0,771} \times 100\% \\ &= 48,89\%\end{aligned}$$

12000ppm

Replikasi 1

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,411}{0,771} \times 100\% \\ &= 46,69\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,309}{0,771} \times 100\% \\ &= 59,92\%\end{aligned}$$

Replikasi 3

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,339}{0,771} \times 100\% \\ &= 56,03\%\end{aligned}$$

15000ppm

Replikasi 1

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,3161}{0,771} \times 100\% \\ &= 59,01\%\end{aligned}$$

Replikasi 2

$$\begin{aligned}\% \text{Inhibisi} &= \frac{0,771 - 0,286}{0,771} \times 100\% \\ &= 62,91\%\end{aligned}$$

Replikasi 3
%Inhibisi $= \frac{0,771 - 0,314}{0,771} \times 100\%$
 $= 59,27\%$

18000ppm

Replikasi 1
%Inhibisi $= \frac{0,771 - 0,229}{0,771} \times 100\%$
 $= 65,11\%$

Replikasi 2
%Inhibisi $= \frac{0,771 - 0,252}{0,771} \times 100\%$
 $= 67,32\%$

Replikasi 3
%Inhibisi $= \frac{0,771 - 0,264}{0,771} \times 100\%$
 $= 65,76\%$

21000ppm

Replikasi 1
%Inhibisi $= \frac{0,723 - 0,204}{0,723} \times 100\%$
 $= 73,54\%$

Replikasi 2
%Inhibisi $= \frac{0,723 - 0,203}{0,723} \times 100\%$
 $= 73,67\%$

Replikasi 3
%Inhibisi $= \frac{0,723 - 0,241}{0,723} \times 100\%$
 $= 68,74\%$

180 menit

9000ppm

Replikasi 1
%Inhibisi $= \frac{0,723 - 0,424}{0,723} \times 100\%$
 $= 40,45\%$

Replikasi 2
%Inhibisi $= \frac{0,723 - 0,420}{0,723} \times 100\%$
 $= 41,91\%$

Replikasi 3
%Inhibisi $= \frac{0,723 - 0,453}{0,723} \times 100\%$
 $= 37,34\%$

12000ppm

Replikasi 1
%Inhibisi $= \frac{0,723 - 0,371}{0,723} \times 100\%$
 $= 47,03\%$

Replikasi 2
%Inhibisi $= \frac{0,723 - 0,369}{0,723} \times 100\%$
 $= 48,96\%$

Replikasi 3
%Inhibisi $= \frac{0,723 - 0,403}{0,723} \times 100\%$
 $= 41,77\%$

15000ppm

Replikasi 1
%Inhibisi $= \frac{0,723 - 0,292}{0,723} \times 100\%$
 $= 59,61\%$

Replikasi 2
%Inhibisi $= \frac{0,723 - 0,316}{0,723} \times 100\%$
 $= 56,29\%$

Replikasi 3
%Inhibisi $= \frac{0,723 - 0,346}{0,723} \times 100\%$
 $= 48,82\%$

18000ppm

Replikasi 1
%Inhibisi $= \frac{0,723 - 0,254}{0,723} \times 100\%$
 $= 62,52\%$

Replikasi 2
%Inhibisi $= \frac{0,723 - 0,263}{0,723} \times 100\%$
 $= 63,62\%$

Replikasi 3
%Inhibisi $= \frac{0,723 - 0,289}{0,723} \times 100\%$
 $= 60,03\%$

21000ppm

Replikasi 1
%Inhibisi $= \frac{0,723 - 0,205}{0,723} \times 100\%$
 $= 68,74\%$

Replikasi 2
%Inhibisi $= \frac{0,723 - 0,235}{0,723} \times 100\%$
 $= 67,50\%$

Replikasi 3
%Inhibisi $= \frac{0,723 - 0,227}{0,723} \times 100\%$
 $= 68,6\%$

4. Perhitungan IC₅₀

- Larutan Pembanding

$$y = 10,815x + 0,072$$

$$50 = 10,815x + 0,072$$

$$x = \frac{50 - 0,072}{10,815}$$

$$x = 4,6166$$

- Larutan Uji (Sampel)

120 menit

Replikasi 1

$$y = 0,0026x + 19,807$$

$$50 = 0,0026x + 19,807$$

$$x = 11.612,6923$$

Replikasi 2

$$y = 0,0021x + 28,511$$

$$50 = 0,0021x + 28,511$$

$$x = 10.232,8571$$

Replikasi 3

$$y = 0,0024x + 26,217$$

$$50 = 0,0024x + 26,217$$

$$x = 9.909,5833$$

150 menit

Replikasi 1

$$y = 0,003x + 12,032$$

$$50 = 0,003x + 12,032$$

$$x = 12.656$$

Replikasi 2

$$y = 0,0016x + 38,742$$

$$50 = 0,0016x + 38,742$$

$$x = 7.036,25$$

Replikasi 3

$$y = 0,0016x + 35,035$$

$$50 = 0,0016x + 35,035$$

$$x = 9353,125$$

180 menit**Replikasi 1**

$$y = 0,0026x + 18,856$$

$$50 = 0,0026x + 18,856$$

$$x = 11.978,4615$$

Replikasi 2

$$y = 0,0022x + 22,736$$

$$50 = 0,0022x + 22,736$$

$$x = 12.392,7273$$

Replikasi 3

$$y = 0,0026x + 13,329$$

$$50 = 0,0026x + 13,329$$

$$x = 14.104,2308$$