

LAMPIRAN

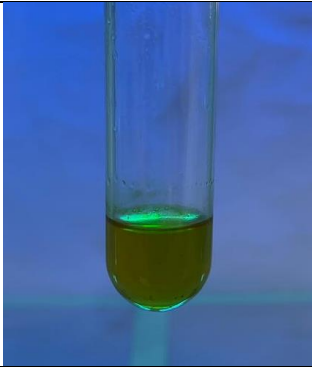
Lampiran 1. Ekstraksi Sampel

Simplisia Batang <i>Etlingera flexuosa</i>		
Proses Ekstraksi (sokletasi)		
Pengentalan (<i>Rotary Evaporator</i>)		

Penguapan sisa Etanol



Lampiran 2. Uji Skrining Fitokimia

No	Senyawa	Hasil	Keterangan
1.	Alkaloid (uji meyer)		Warna Kuning
	Alkaloid (uji dragendrof)		Warna Jingga
2.	Flavonoid		Warna Kuning
3.	Saponin		Terbentuk Buih

4.	Tanin		Hitam Kehijauan
5.	Terpenoid		Terbentuk Cincin Coklat

Lampiran 3. Perhitungan %Rendemen Ekstrak

$$\begin{aligned}\% \text{Rendemen} &= \frac{\text{Berat Ekstrak Kental (g)}}{\text{Berat Simplisia (g)}} \times 100\% \\ &= \frac{5,4g}{180g} \times 100\% \\ &= 0,03 \times 100\% \\ &= 3\%\end{aligned}$$

Jadi, %Rendemen yang dihasilkan yaitu 3%

Lampiran 4. Perhitungan Pembuatan Larutan Konsentrasi

Rumus: konsentrasi% = (jumlah ekstrak/total volume) x 100

Jumlah ekstrak = (konsentrasi/100) x total volume

Konsentrasi 80%

$$80\% = \frac{80}{100} \times 3 = \frac{240}{100} = 2,4 \text{ gr}$$

Konsentrasi 60%

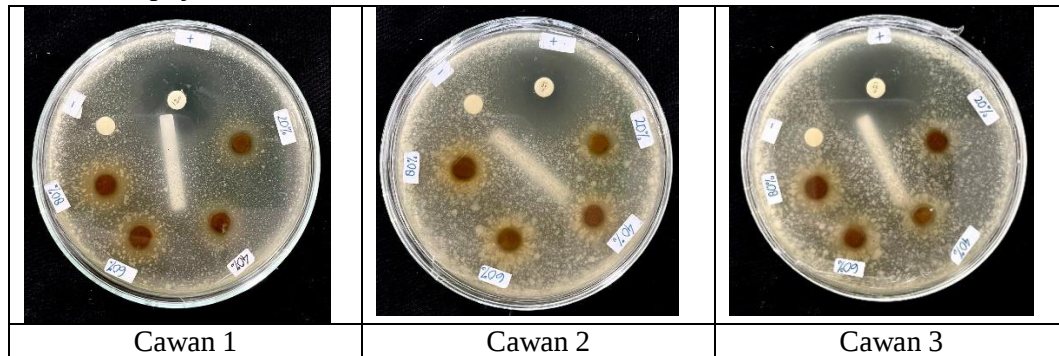
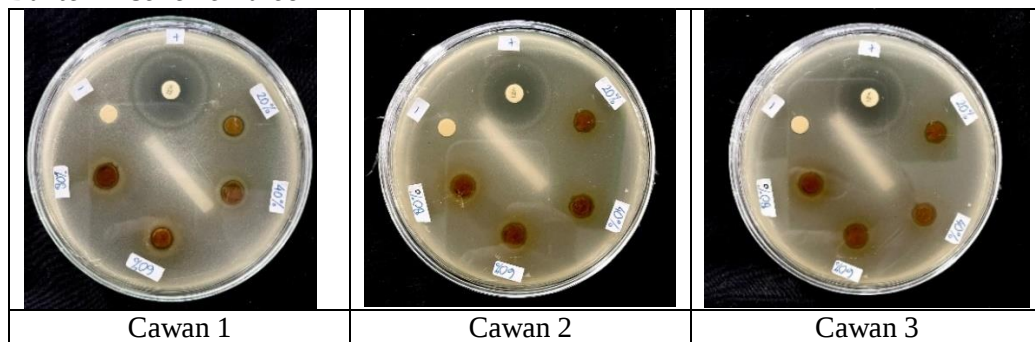
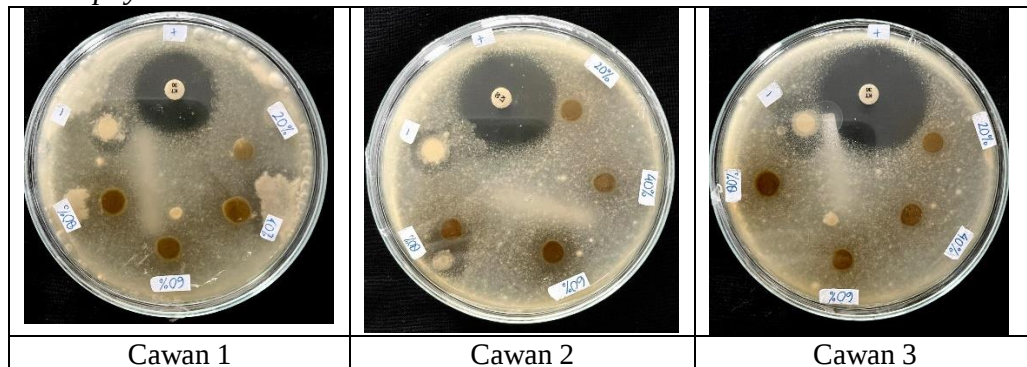
$$60\% = \frac{60}{100} \times 3 = \frac{180}{100} = 1,8 \text{ gr}$$

Konsentrasi 40%

$$40\% = \frac{40}{100} \times 3 = \frac{120}{100} = 1,2 \text{ gr}$$

Konsentrasi 20%

$$20\% = \frac{20}{100} \times 3 = \frac{60}{100} = 0,6 \text{ gr}$$

Lampiran 5. Gambar Zona Hambat Mikroba**A. Bakteri *Staphylococcus aureus*****B. Bakteri *Escherichia coli*****C. *Trichophyton rubrum***

Lampiran 6. Perhitungan Zona Hambat Mikroba

A. Perhitungan zona hambat tiap cawan bakteri *Staphylococcus aureus*

1. Konsentrasi 20%

$$\begin{aligned}\text{Cawan 1} &= \frac{10+9+9+9}{4} \\ &= 9,25 \text{ mm}\end{aligned}$$

$$\begin{aligned}\text{Cawan 2} &= \frac{9+9}{2} \\ &= 9 \text{ mm}\end{aligned}$$

$$\begin{aligned}\text{Cawan 3} &= \frac{10+9+9+9}{4} \\ &= 9,25 \text{ mm}\end{aligned}$$

Rata-rata diameter zona hambat

$$\begin{aligned}&= C1+C2+C3 \\ &= \frac{9,25+9+9,25}{3} \\ &= 9,1 \text{ mm}\end{aligned}$$

2. Konsentrasi 40%

$$\begin{aligned}\text{Cawan 1} &= \frac{10+10}{2} \\ &= 10 \text{ mm}\end{aligned}$$

$$\begin{aligned}\text{Cawan 2} &= \frac{11+10+9+9}{4} \\ &= 9,75 \text{ mm}\end{aligned}$$

$$\begin{aligned}\text{Cawan 3} &= \frac{10+12+9+9}{4} \\ &= 10 \text{ mm}\end{aligned}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{10+9,75+10}{3}$$

$$= 9,91 \text{ mm}$$

3. Konsentrasi 60%

$$\text{Cawan 1} = \frac{13+11+12+11}{4}$$

$$= 11,75 \text{ mm}$$

$$\text{Cawan 2} = \frac{11+9+10+11}{4}$$

$$= 10,25 \text{ mm}$$

$$\text{Cawan 3} = \frac{12+12+10+10}{4}$$

$$= 11 \text{ mm}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{11,75+10,25+11}{3}$$

$$= 11 \text{ mm}$$

4. Konsentrasi 80%

$$\text{Cawan 1} = \frac{13+12+12+12}{4}$$

$$= 12,25 \text{ mm}$$

$$\text{Cawan 2} = \frac{11+11+10+10}{4}$$

$$= 10,5 \text{ mm}$$

$$\text{Cawan 3} = \frac{12+10+12+11}{4}$$

$$= 11,25 \text{ mm}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{12,25+11,5+11,25}{3}$$

$$= 11,33 \text{ mm}$$

5. Kontrol Positif

$$\begin{aligned} \text{Cawan 1} &= \frac{30+30}{2} \\ &= 30 \text{ mm} \end{aligned}$$

$$\begin{aligned} \text{Cawan 2} &= \frac{25+25}{2} \\ &= 25 \text{ mm} \end{aligned}$$

$$\begin{aligned} \text{Cawan 3} &= \frac{30+30}{2} \\ &= 30 \text{ mm} \end{aligned}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{30+25+30}{3}$$

$$= 28,33 \text{ mm}$$

B. Perhitungan zona hambat tiap cawan bakteri *Escherichia coli*

1. Konsentrasi 20%

$$\begin{aligned} \text{Cawan 1} &= \frac{8+8}{2} \\ &= 8 \text{ mm} \end{aligned}$$

$$\begin{aligned} \text{Cawan 2} &= \frac{8+8}{2} \\ &= 8 \text{ mm} \end{aligned}$$

$$\begin{aligned} \text{Cawan 3} &= \frac{9+9}{2} \end{aligned}$$

$$= 9 \text{ mm}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{8+8+9}{3}$$

$$= 8,33 \text{ mm}$$

2. Konsentrasi 40%

$$\text{Cawan 1} = \frac{9+8+9+8}{4}$$

$$= 8,5 \text{ mm}$$

$$\text{Cawan 2} = \frac{10+10+9+9}{4}$$

$$= 9,5 \text{ mm}$$

$$\text{Cawan 3} = \frac{10+9+9+9}{4}$$

$$= 9,25 \text{ mm}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{8,5+9,5+9,25}{3}$$

$$= 9,08 \text{ mm}$$

3. Konsentrasi 60%

$$\text{Cawan 1} = \frac{9+9}{2}$$

$$= 9 \text{ mm}$$

$$\text{Cawan 2} = \frac{9+9}{2}$$

$$= 9 \text{ mm}$$

$$\begin{aligned}\text{Cawan 3} &= \frac{10+10}{2} \\ &= 10 \text{ mm}\end{aligned}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{9+9+10}{3}$$

$$= 9,33 \text{ mm}$$

4. Konsentrasi 80%

$$\begin{aligned}\text{Cawan 1} &= \frac{10+9+9+9}{4} \\ &= 9,25 \text{ mm}\end{aligned}$$

$$\begin{aligned}\text{Cawan 2} &= \frac{10+10}{2} \\ &= 10 \text{ mm}\end{aligned}$$

$$\begin{aligned}\text{Cawan 3} &= \frac{10+10}{2} \\ &= 10 \text{ mm}\end{aligned}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{9,25+10+10}{3}$$

$$= 9,41 \text{ mm}$$

5. Kontrol Positif

$$\begin{aligned}\text{Cawan 1} &= \frac{28+28}{2} \\ &= 28 \text{ mm}\end{aligned}$$

$$\text{Cawan 2} = \frac{28+28}{2}$$

$$= 28 \text{ mm}$$

$$\text{Cawan 3} = \frac{26+26}{2}$$

$$= 26 \text{ mm}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{28+28+26}{3}$$

$$= 27,33 \text{ mm}$$

C. Perhitungan zona hambat tiap cawan jamur *Trichophyton rubrum*

Kontrol Positif

$$\text{Cawan 1} = \frac{32+32}{2}$$

$$= 32 \text{ mm}$$

$$\text{Cawan 2} = \frac{28+28}{2}$$

$$= 28 \text{ mm}$$

$$\text{Cawan 3} = \frac{25+25}{2}$$

$$= 25 \text{ mm}$$

Rata-rata diameter zona hambat

$$= C1+C2+C3$$

$$= \frac{32+28+25}{3}$$

$$= 28,33 \text{ mm}$$

Lampiran 7. Hasil Analisis Data Statistika dengan Aplikasi SPSS

A. *Staphylococcus aureus*

1. Uji Normalitas

Tests of Normality ^b				
	KONSENTRASI	Shapiro-Wilk		
		Statistic	df	Sig.
ZONAHAMBAT	KONTROL POSITIF	.750	3	.000
	80%	.993	3	.843
	60%	1.000	3	1.000
	40%	.750	3	.000
	20%	.750	3	.000

a. Lilliefors Significance Correction

b. ZONAHAMBAT is constant when KONSENTRASI = KONTROL NEGATIF. It has been omitted.

2. Uji Homogenitas

Test of Homogeneity of Variances

ZONAHAMBAT

Levene Statistic	df1	df2	Sig.
9.427	5	12	.001

3. Kruskal-Wallis Test

Ranks			
	KONSENTRASI	N	Mean Rank
ZONA_HAMBAT	KONTROL POSITIF	3	17.00
	80%	3	13.00
	60%	3	12.00
	40%	3	8.00
	20%	3	5.00
	KONTROL NEGATIF	3	2.00
	Total	18	

Test Statistics^{a,b}

	DIAMETER
Chi-Square	16.275
df	5
Asymp. Sig.	.006

a. Kruskal Wallis Test

b. Grouping Variable:

KONSENTRASI

4. Uji Mann-Whitney

Kontrol Positif dan Konsentrasi 80%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	80%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 60%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	60%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 40%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	40%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 60%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	4.00	12.00
	60%	3	3.00	9.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 40%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	5.00	15.00
	40%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Konsentrasi 40%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	5.00	15.00
	40%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 40% dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	40%	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 40% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	40%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 20% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	20%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

B. *Escherichia coli*

1. Uji Normalitas

Tests of Normality ^b				
	KONSENTRASI	Shapiro-Wilk		
		Statistic	df	Sig.
ZONA_HAMBAT	KONTROL POSITIF	.750	3	.000
	80%	.750	3	.000
	60%	.750	3	.000
	40%	.923	3	.463
	20%	.750	3	.000

2. Uji Homogenitas

a. Lilliefors Significance Correction

b. ZONA_HAMBAT is constant when KONSENTRASI = KONTROL NEGATIF. It has been omitted.

Test of Homogeneity of Variances

ZONA_HAMBAT

Levene Statistic	df1	df2	Sig.
5.090	5	12	.010

3. Kruskal-Wallis Test

Ranks			
	KONSENTRASI	N	Mean Rank
ZONA_HAMBAT	KONTROL POSITIF	3	17.00
	80%	3	12.83
	60%	3	10.00
	40%	3	9.50
	20%	3	5.67
	KONTROL NEGATIF	3	2.00
	Total	18	

Test Statistics^{a,b}

	ZONA_HAMBAT
Chi-Square	14.814
df	5
Asymp. Sig.	.011

a. Kruskal Wallis Test

b. Grouping Variable:

KONSENTRASI

4. Uji Mann-whitney

Kontrol Positif dan Konsentrasi 80%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	80%	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 60%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	60%	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 40%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	40%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 60%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	4.33	13.00
	60%	3	2.67	8.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	2.000
Wilcoxon W	8.000
Z	-1.179
Asymp. Sig. (2-tailed)	.239
Exact Sig. [2*(1-tailed Sig.)]	.400 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 40%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	4.50	13.50
	40%	3	2.50	7.50
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	1.500
Wilcoxon W	7.500
Z	-1.348
Asymp. Sig. (2-tailed)	.178
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Konsentrasi 40%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	3.67	11.00
	40%	3	3.33	10.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	4.000
Wilcoxon W	10.000
Z	-.221
Asymp. Sig. (2-tailed)	.825
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	4.67	14.00
	20%	3	2.33	7.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.650
Asymp. Sig. (2-tailed)	.099
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 40% dan Konsentrasi 20%

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	40%	3	4.67	14.00
	20%	3	2.33	7.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.550
Asymp. Sig. (2-tailed)	.121
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 40% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	40%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 20% dan Kontrol Negatif

Ranks

	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	20%	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics^a

	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

C. *Trichophyton rubrum*

1. Uji Normalitas

Tests of Normality^{b,c,d,e,f}

	KONSENTRASI	Shapiro-Wilk		
		Statistic	df	Sig.
ZONA_HAMBAT	KONTROL POSITIF	.993	3	.843

a. Lilliefors Significance Correction

b. ZONA_HAMBAT is constant when KONSENTRASI = 80%. It has been omitted.

c. ZONA_HAMBAT is constant when KONSENTRASI = 60%. It has been omitted.

d. ZONA_HAMBAT is constant when KONSENTRASI = 40%. It has been omitted.

e. ZONA_HAMBAT is constant when KONSENTRASI = 20%. It has been omitted.

f. ZONA_HAMBAT is constant when KONSENTRASI = KONTROL NEGATIF. It has been omitted.

2. Uji Homogenitas

Test of Homogeneity of Variances

ZONA_HAMBAT

Levene Statistic	df1	df2	Sig.
5.319	5	12	.008

3. Kruskal-Wallis

Ranks

	KONSENTRASI	N	Mean Rank
ZONA_HAMBAT	KONTROL POSITIF	3	17.00
	80%	3	8.00
	60%	3	8.00
	40%	3	8.00
	20%	3	8.00
	KONTROL NEGATIF	3	8.00
	Total	18	

Test Statistics^{a,b}

	ZONA_HAMBAT
Chi-Square	16.834
df	5
Asymp. Sig.	.005

a. Kruskal Wallis Test

b. Grouping Variable:

KONSENTRASI

4. Uji Mann-Whitney

Kontrol Positif dan Konsentrasi 80%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	80%	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 60%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	60%	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 40%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	40%	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Konsentrasi 20%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	20%	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Kontrol Positif dan Kontrol Negatif

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	KONTROL POSITIF	3	5.00	15.00
	KONTROL NEGATIF	3	2.00	6.00
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 60%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	3.50	10.50
	60%	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 40%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	3.50	10.50
	40%	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Konsentrasi 20%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	3.50	10.50
	20%	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 80% dan Kontrol Negatif

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	80%	3	3.50	10.50
	KONTROL NEGATIF	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Konsentrasi 40%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	3.50	10.50
	40%	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Konsentrasi 20%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	3.50	10.50
	20%	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 60% dan Kontrol Negatif

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	60%	3	3.50	10.50
	KONTROL NEGATIF	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 40% dan Konsentrasi 20%

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	40%	3	3.50	10.50
	20%	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 40% dan Kontrol Negatif

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	40%	3	3.50	10.50
	KONTROL NEGATIF	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.

Konsentrasi 20% dan Kontrol Negatif

Ranks				
	KONSENTRASI	N	Mean Rank	Sum of Ranks
ZONA_HAMBAT	20%	3	3.50	10.50
	KONTROL NEGATIF	3	3.50	10.50
	Total	6		

Test Statistics ^a	
	ZONA_HAMBAT
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: KONSENTRASI

b. Not corrected for ties.



**PIMPINAN PUSAT MUHAMMADIYAH
MAJELIS PENDIDIKAN TINGGI, PENELITIAN, DAN PENGEMBANGAN
UNIVERSITAS MUHAMMADIYAH PALOPO
FAKULTAS ILMU KESEHATAN
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SURAT KETERANGAN
NOMOR: 034KET/III.3.AU/LAB-FARM/F/2026

Yang bertanda tangan dibawah ini :

Nama : apt. Waode Suiyarti., S.Si., M.Si

Jabatan : Ketua Program Studi Farmasi

Menerangkan dengan sesungguhnya bahwa :

Nama : Andi Aisyah

Nim : 221320010

Judul : Uji Aktivitas Antimikroba Ekstrak Etanol Batang *Semu Ellingera flexuosa* dari Pegunungan Latimojong, Sulawesi Selatan

Jurusan/Prodi : Farmasi (S1)

Perguruan Tinggi : Universitas Muhammadiyah Palopo

Telah menyelesaikan segala kewajiban terkait dengan peminjaman/penggunaan fasilitas Laboratorium selama yang bersangkutan melaksanakan kegiatan penelitian di lingkup laboratorium Farmasi Universitas Muhammadiyah Palopo, sehingga diberikan Surat Keterangan bebas Laboratorium ini.

Demikian Surat Keterangan ini diberikan untuk dipergunakan sebagaimana mestinya.

Palopo, 09 Juni 2026

Ketua Program Studi Farmasi



apt. Waode Suiyarti., S.Si., M.Si
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