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Lampiran 1. Komposisi Media

1. *Brain Heart Infusion (BHI)* (g)

✓ <i>Brain heart infusion</i>	12,5
✓ <i>proteose peptone</i>	10
✓ <i>glucose</i>	2
✓ <i>sodium chloride</i>	5
✓ <i>disodium phosphate</i>	2,5
✓ aquadest	1000 ml

2. *Nutrien Agar (NA)* (g):

✓ <i>Peptone from meat</i>	5
✓ <i>Meat extract</i>	3
✓ Agar-agar	12
✓ aquadest	1000 ml

3. *Media Mueller Hinton Agar (MHA)* (g):

✓ <i>beef extract</i>	0,2
✓ <i>casein hydrolysate</i>	17,5
✓ <i>starch</i>	0,15
✓ agar	17
✓ aquadest	1000ml.

4. *Sulfida Indol Moltility (SIM)* (g) :

✓ <i>peptone</i>	3
✓ <i>meat extract</i>	3
✓ ammonium sulfat	0,2
✓ sodium thiosulfate	0,025
✓ agar	3
✓ aquadest	1000ml

5. *Lysine Iron Agar (LIA)* (g) :

✓ <i>enzymatic digest of gelatin</i>	5
✓ <i>yeast extract</i>	3

✓ <i>dextrose</i>	1,
✓ <i>L-lysine</i>	10
✓ <i>ferric ammonium citrate</i>	0,5
✓ <i>sodium thiosulfat</i>	0,04
✓ <i>bromcresol purple</i>	0,02
✓ <i>agar</i>	13,5
✓ <i>aquadest</i>	1000 ml

6. Kligler Iron Agar (KIA) (g) :

✓ <i>peptone</i>	23
✓ <i>yeast extract</i>	3
✓ <i>glucose</i>	1
✓ <i>lactose</i>	10
✓ <i>besi (II) sulfat</i>	0,2
✓ <i>sodium klorida</i>	5
✓ <i>sodium thiosulfat</i>	0,3
✓ <i>phenol red</i>	0,05
✓ <i>agar</i>	7
✓ <i>aquadest</i>	1000 ml

7. Sitrat (g) :

✓ <i>ammonium dihydrogen phosphate</i>	1,
✓ <i>di-potassium hydrogen phosphate</i>	1
✓ <i>sodium chloride</i>	5
✓ <i>sodium citrate</i>	2
✓ <i>magnesium sulfate</i>	0,2
✓ <i>bromothymol blue</i>	0,08
✓ <i>agar-agar</i>	13
✓ <i>aquadest</i>	1000ml

8. Media gula-gula (g) :

✓ <i>ekstrak daging</i>	3
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✓ pepton	5
✓ phenol red	1%
✓ aquades	1000 ml
✓ kH(gula)	5

Lampiran 2. Determinasi daun tanaman sukun



**UNIVERSITAS
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Nomor : 156/DET/UPT-LAB/05.03.2021

Hal : Hasil determinasi tumbuhan

Lamp. : -

Nama Pemesan : Martha Aulia W

NIM : 23175066A

Alamat : Program Studi S1 Farmasi, Universitas Setia Budi, Surakarta

Nama Sampel : Sukun/*Artocarpus altilis*.

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom : Plantae

Super Divisi : Spermatophyta

Divisi : Magnoliophyta

Kelas : Magnoliopsida/Dicotyledoneae

Ordo : Rosales

Famili : Moraceae

Genus : *Artocarpus*

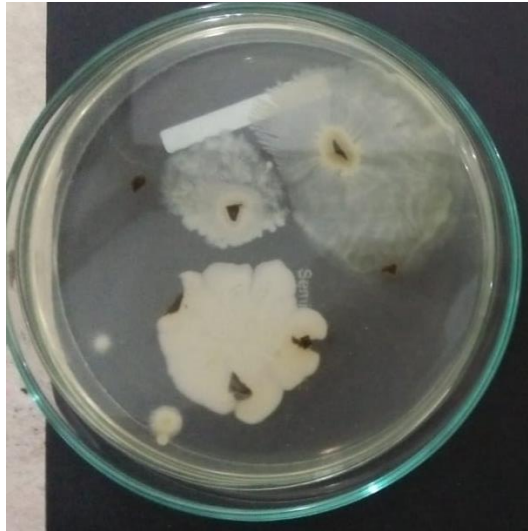
Species : *Artocarpus altilis*.

Hasil Determinasi menurut Steenis, C.G.G.J.V, Bloembergen, H, Eyma, P.J. 1992 :

1b – 2b – 3b – 4b – 12b – 13b – 14b – 17b – 18b – 19b – 20b – 21b – 22b – 23b – 24b – 25b
 – 26b – 27b – 799b – 800a. familia 117. Moraceae. 1b – 2b – 4b – 6b – 8b – 9a – 10b – 13b –
 14b.9. *Artocarpus*. 1a – 2a – 3b – 4b. *Artocarpus altilis* (Park.) Fosberg.

Sinonim: *Artocarpus indica* (Thunb.) L.f., *Artocarpus communis* J.R. & G. Forest.

Lampiran 3. Hasil isolasi Daun Sukun



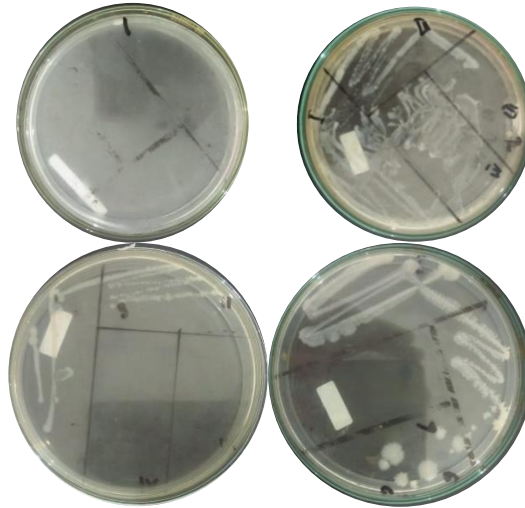
Isolasi dari kelompok A



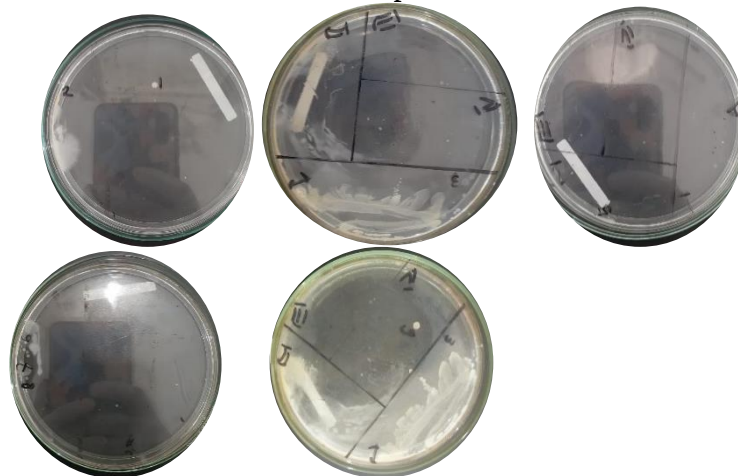
Isolasi dari kelompok B

Lampiran 4. Hasil pemurnian isolate bakteri endioft

Pemurnian



Kelompok A



Kelompok B

Bilasan

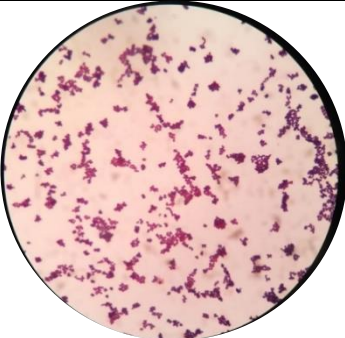
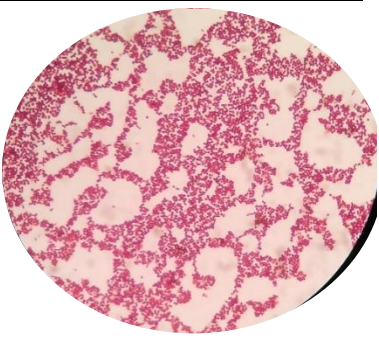
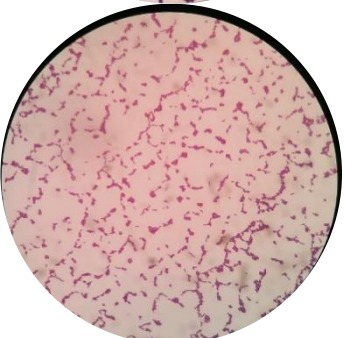
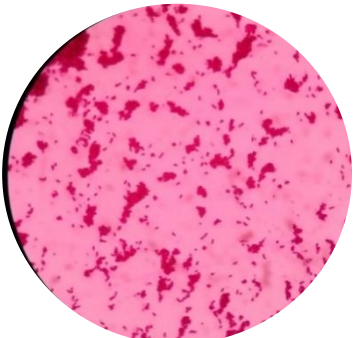
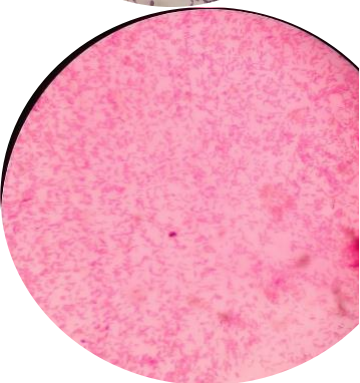
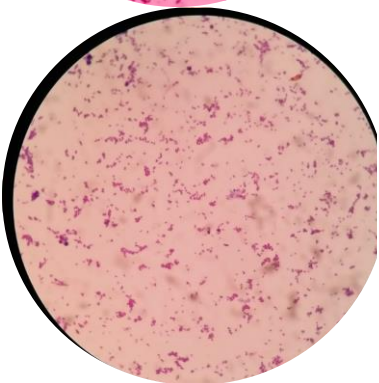
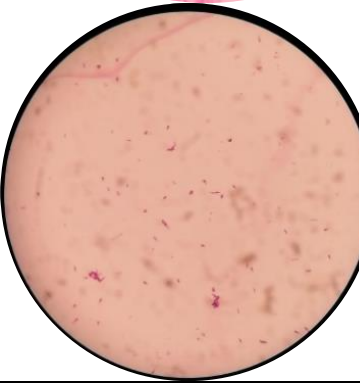
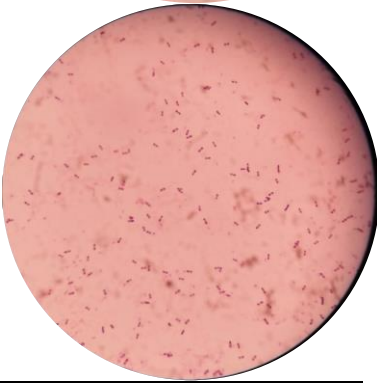


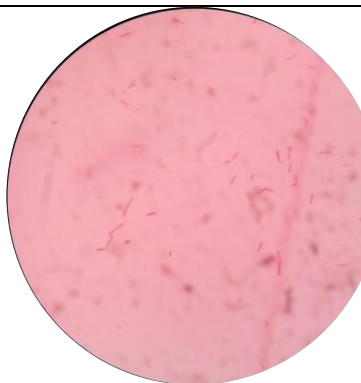
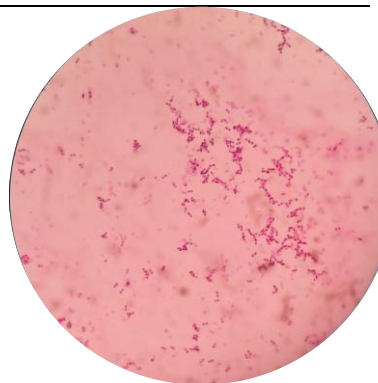
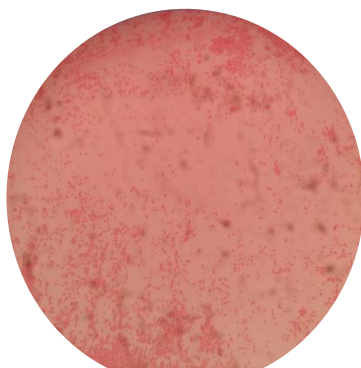
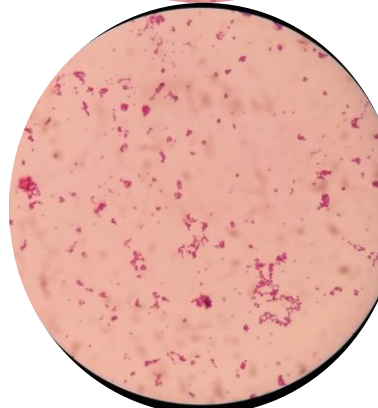
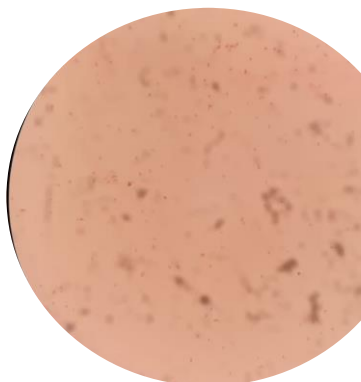
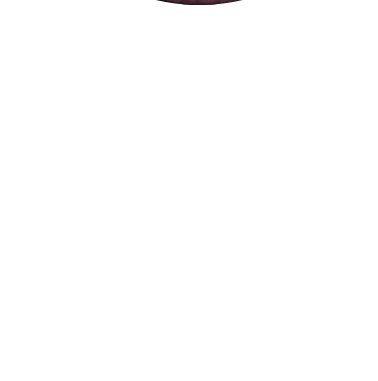
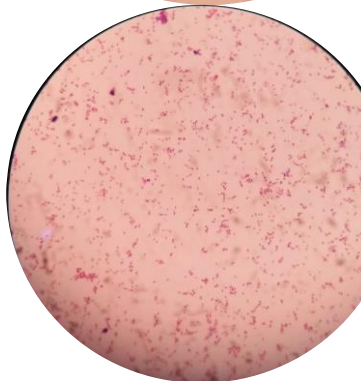
Kel A



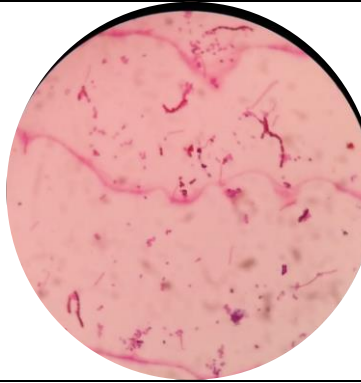
Kel B

Lampiran 5. Hasil uji pewarnaan Gram bakteri endofit

Kode	Hasil pewarnaan Gram	Kode	Hasil pewarnaan Gram
BB1		LA1	
BB2		BA2	
LB3		BA3	
BB4		LA4	

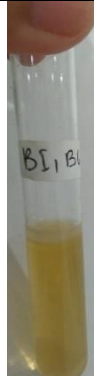
BB5**LA5****BB6****LA6****BB7****LA7****BB8**

BB9



Lampiran 6. Hasil uji Biokimia Bakteri endofit

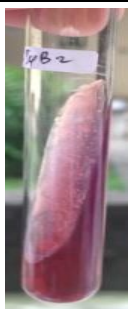
a. SIM

HASIL			
KODE	BB2	BB5	BB6

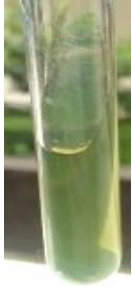
b. KIA

HASIL			
KODE	BB2	BB5	BB6

c. LIA

HASIL			
KODE	BB2	BB5	BB6

d. Uji Citrat

HASIL			
Kode	BB2	BB5	BB6

e. Uji Fermentasi gula

- Laktosa

Kode	Hasil	Kode	Hasil
LA1		BB1	
BA2		LB3	
BA3		BB4	

Kode	Hasil	Kode	Hasil
LA4		BB7	
LA5		BB8	
LA6		BB9	
LA7			

- Sukrosa

Kode	Hasil	Kode	Hasil
LA1		BB1	
BA2		LB3	
BA3		BB4	
LA4		BB7	
LA5		BB8	
LA6		BB9	
LA7			

- Maltosa

Kode	Hasil	Kode	Hasil
LA1		BB1	
BA2		LB3	
BA3		BB4	
LA4		BB7	
LA5		BB8	
LA6		BB9	
LA7			

- Glukosa

Kode	Hasil	Kode	Hasil
LA1		BB1	
BA2		LB3	
BA3		BB4	
LA4		BB7	
LA5		BB8	

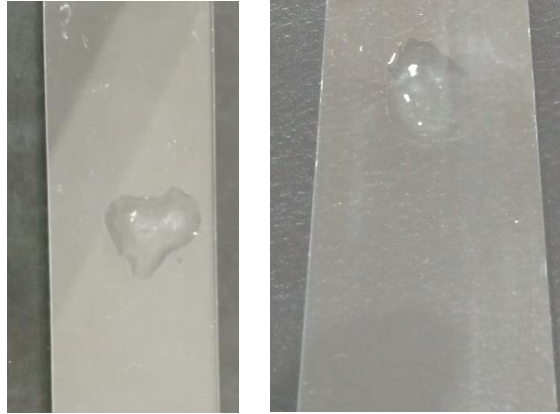
Kode	Hasil	Kode	Hasil
LA6		BB9	
LA7			

f. Uji katalase

KODE	HASIL	KODE	HASIL
LA1		BB1	
BA2		BB2	
BA3		LB3	
LA4		BB4	
LA5		BB5	

KODE	HASIL	KODE	HASIL
LA6		BB6	
LA7		BB7	
		BB8	
		BB9	

g. Uji Koagulasi

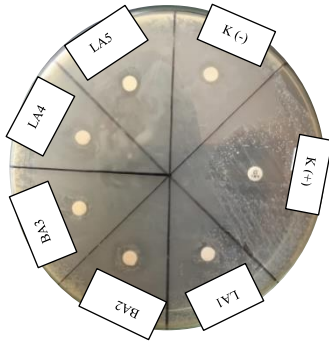


Lampiran 7. Hasil supernatan bakteri endofit

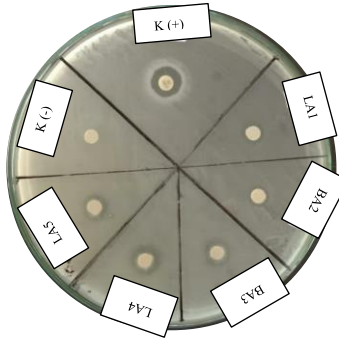


Lampiran 8. Hasil Uji aktivitas antibakteri dari bakteri endofit kelompok A

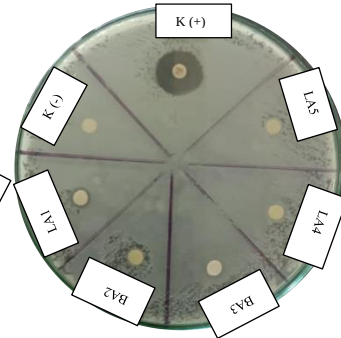
Replikasi III



Replikasi II

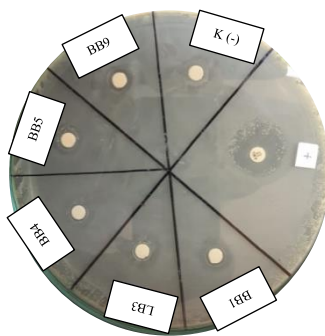


Replikasi III

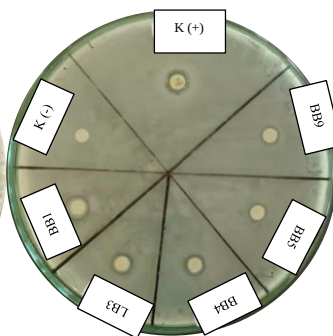


Lampiran 9. Hasil uji aktivitas antibakteri dari bakteri endofit kelompok B

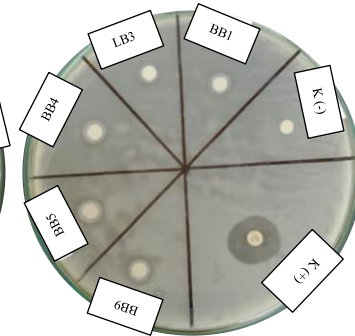
Replikasi I



Replikasi II



Replikasi III



Lampiran 10. Hasil uji statistic bakteri endofit kelompok A

Statistic kelompok A

Uji normalitas

Tests of Normality							
	kode_bakteri	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
diamter_zona_bening	LA1	.325	3	.	.875	3	.309
	BA2	.369	3	.	.789	3	.089
	BA3	.329	3	.	.868	3	.289
	LA4	.296	3	.	.918	3	.445
	LA5	.285	3	.	.932	3	.495
	kontrol positif	.219	3	.	.987	3	.781
	kontrol negatif	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

Nilai sig >0,05 data terdistribusi normal.

Uji homogenitas

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
diamter_zona_bening	Based on Mean	2.587	6	14	.067
	Based on Median	.414	6	14	.858
	Based on Median and with adjusted df	.414	6	5.112	.844
	Based on trimmed mean	2.296	6	14	.094

Nilai sig > 0,05 data terdistribusi homogen

Uji one way anova

ANOVA					
diamter_zona_bening					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	353.249	6	58.875	6.371	.002
Within Groups	129.369	14	9.241		
Total	482.617	20			

Nilai sig 0,002 < 0,05 terdapat perbedaan yang signifikan antar masing-masing kelompok perlakuan (kode bakteri endofit).

Uji post hoc Duncan

diamter_zona_beningDuncan^a

kode_bakteri	N	Subset for alpha = 0.05		
		1	2	3
kontrol negatif	3	2.9933		
BA2	3		8.5900	
LA1	3		8.9800	
BA3	3		9.5167	
LA4	3		10.0333	
LA5	3		10.1900	
kontrol positif	3			18.1067
Sig.		1.000	.567	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 11. Hasil uji statistic bakteri endofit kelompok B

Statistic Kelompok B

Uji normalitas

Tests of Normality							
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	kode_bakteri	Statistic	df	Sig.	Statistic	df	Sig.
diameter_zona_hambat	BB1	.203	3	.	.994	3	.848
	LB3	.375	3	.	.774	3	.055
	BB4	.305	3	.	.906	3	.405
	BB5	.316	3	.	.890	3	.355
	BB9	.379	3	.	.766	3	.035
	kontrol positif	.302	3	.	.910	3	.417
	kontrol negatif	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

Nilai sig >0,05 data terdistribusi normal

Uji homogenitas

Test of Homogeneity of Variances						
		Levene Statistic	df1	df2	Sig.	
diameter_zona_hambat	Based on Mean	2.680	6	14	.060	
	Based on Median	.355	6	14	.895	
	Based on Median and with adjusted df	.355	6	7.387	.887	
	Based on trimmed mean	2.328	6	14	.090	

Nilai sig >0,05 data terdistribusi homogen

Uji one way anova

ANOVA					
diameter_zona_hambat	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	327.171	6	54.529	4.962	.006
Within Groups	153.843	14	10.989		
Total	481.015	20			

Nilai sig <0,05 terdapat perbedaan yang signifikan antar masing-masing kelompok (kode bakteri).

Uji post hoc Duncan

diameter_zona_hambatDuncan^a

kode_bakteri	N	Subset for alpha = 0.05		
		1	2	3
kontrol negatif	3	2.6667		
BB5	3		10.6167	
BB9	3		10.7167	
BB4	3		11.2500	11.2500
LB3	3		11.8233	11.8233
BB1	3		11.8567	11.8567
kontrol positif	3			17.1667
Sig.		1.000	.683	.062

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.