

LAMPIRAN

Lampiran 1 Determinasi Tanaman

HERBARIUM JATINANGOR
LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA UNPAD
Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor
Telp. 089689992695, email: phanerogama@yahoo.com

LEMBAR IDENTIFIKASI TUMBUHAN

No.57/HB/05/2024.

Herbarium Jatinangor, Laboratorium Taksonomi Tumbuhan, Jurusan Biologi FMIPA UNPAD, dengan ini menerangkan bahwa:

Nama : Tiya Oktariyansyah
NIM/NIDN : 221FF04044
Instansi : Universitas Bhakti Kencana.
Lokasi : Bandung.

Telah melakukan identifikasi tumbuhan, dengan No. Koleksi: -
Tanggal Koleksi : 29 Mei 2024.

Hasil Identifikasi

Nama Ilmiah : *Musa paradisiaca* L.
Sinonim : *Musa balbisiana* ABB.
Nama Lokal : Bonggol Pisang kepok
Suku/Famili : Musaceae

Klasifikasi (Hirarki Taksonomi)

Kingdom : Plantae
Divisi : Magnoliophyta
Class : Liliopsida
Ordo : Zingiberales
Famili : Musaceae
Genus : *Musa*
Species : *Musa paradisiaca* L.

Referensi:

Backer, C. A. and Bakhuizen v/d Brink R. C Jr. 1963. Flora of Java. Wolter-Noordhoff NV. Groningen.
Cronquist, Arthur. 1981. An Integrated System of Classification of Flowering Plants. Columbia University Press. New York
The Plant List. Website Dunia Tumbuhan. <http://www.theplantlist.org/tpl1.1/record/kew-158489>.

Jatinangor, 31 Mei 2024.

Identifikator,

LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA-UNPAD

Drs. Joko Kusmoro, M.P.

NIP. 196008011991011001

Lampiran 2 Sertifikat Bakteri *Staphylococcus aureus*



Thermo Fisher Scientific
Microbiology
12076 Santa Fe Trail Drive
Lansing, KS 66215
800.255.6730
800.447.5761 fax
www.thermofisher.com

Certificate of Analysis - Certified Reference Material

thermo scientific

Thermo Scientific™ Trademark™
Product Number R4607016
Product Name *S. aureus* ssp *aureus* ATCC 6538 PK/5
Lot Number 747735
Usage Decision Accepted (OK)
Expiration Date 2025-04-29

This product has been manufactured, processed and packaged in accordance with Quality Systems Regulation, 21 CFR Part 820. The results were derived from a representative sample of the batch and were obtained at the time of release. Refer to the enclosed product insert for instructions, intended use, hazard/safety requirements, and storage conditions.

Product Characteristics

Purity	Demonstrates pure growth on applicable media
Viability	Recovered at acceptable level within test period
Passage	3 (Current preserved state)

Microbiological testing	Results	Specification
>85% Identification on Vitek 2C GP	100	85 - 100
>95% Identification on MicroSEQ	Pass	95 - 100
Microscopic Features		

These tests are performed in accordance with ISO 17025 guidelines. Thermo Fisher Scientific has determined each lot of this reference material to be sufficiently homogeneous for its intended use. Individual products are traceable to a recognized culture collection. Although the Vitek(TM) panel uses many conventional tests, the unique environment of the card, combined with the short incubation period, may produce results that differ from published results obtained by other methods.

Lampiran 3 Sertifikat Bakteri *Staphylococcus epidermidis*



Thermo Fisher Scientific
Microbiology
12076 Santa Fe Trail Drive
Lemona, KS 66215
800.255.6730
800.447.5761 fax
www.thermofisher.com

Certificate of Analysis - Certified Reference Material

thermo scientific

Thermo Scientific™ Trademark™
Product Number R4606500
Product Name *S. epidermidis* ATCC 12228 PK/5
Lot Number 713245
Usage Decision Accepted (OK)
Expiration Date 2025-02-04

This product has been manufactured, processed and packaged in accordance with Quality Systems Regulation, 21 CFR Part 820.
The results were derived from a representative sample of the batch and were obtained at the time of release.
Refer to the enclosed product insert for instructions, intended use, hazard/safety requirements, and storage conditions.

Product Chair Results

Purity	Demonstrates pure growth on applicable media
Viability	Recovered at acceptable level within test period
Passage	3 (Current preserved state)

Microbiological testing	Results	Specification
>85% Identification on Vitek 2C GP		85 - 100
>95% Identification on MicroSEQ	100	95 - 100
Microscopic Features	Pass	

These tests are performed in accordance with ISO 17025 guidelines.
Thermo Fisher Scientific has determined each loop of this reference material to be sufficiently homogeneous for its intended use.
Individual products are traceable to a recognized culture collection.
Although the Vitek(TM) panel uses many conventional tests, the unique environment of the card, combined with the short incubation period, may produce results that differ from published results obtained by other methods

Lampiran 4 Sertifikat Bakteri *Propionibacterium acnes*



Thermo Fisher Scientific
Microbiology
12076 Santa Fe Trail Drive
12230 Santa Fe Trail Drive
Lenexa, KS 66215
800.255.6730
800.447.5761 fax
www.thermofisher.com

Certificate of Analysis

Product Name: P. acnes ATCC 6919 PK/5
Lot Number: 743777

Product Number: R4607101
Expiration Date: 2025-04-17
(YYYY-MM-DD)

This product has been manufactured, processed and packaged in accordance with Quality Systems Regulation, 21 CFR Part 820. Representative samples were tested per Remel Inc., a part of Thermo Fisher Scientific Quality Control specifications and were found to meet performance criteria for this product.

Purity:

Standardized aliquots of the rehydrated product are inoculated onto nonselective media and examined for pure growth following the appropriate incubation. Selective and Differential media are also tested where applicable.

Viability And Quantification:

Each organism is recovered from the preserved state within the required time frame and at an acceptable level. Passage number is stated as the current preserved state.

Macroscopic And Microscopic Morphology:

Colony morphology is consistent with documented referenced description. Traditional staining is performed.

Characterization:

Organism exhibits characteristic biochemical, enzymatic, genotypical and/or biochemical reactions. Automated and/or conventional testing was performed and results were within established limits. Antimicrobial testing performed where applicable. Results within expected ranges.

CFU/loop: >10(4)

Passage: 3

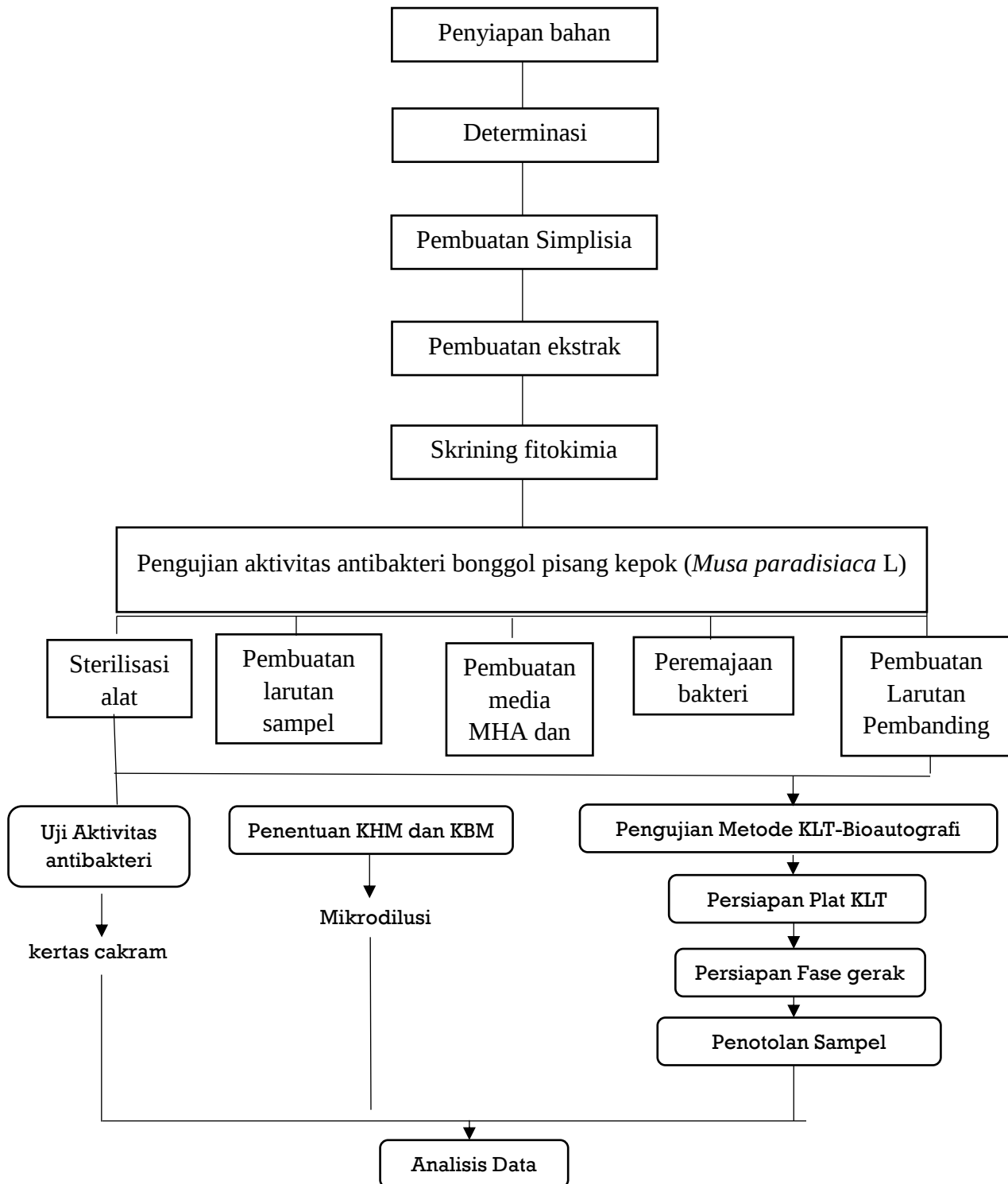
Gram Reaction: Gram Positive Rod

Identification Profile: MicroSEQ® or Vitek® 2

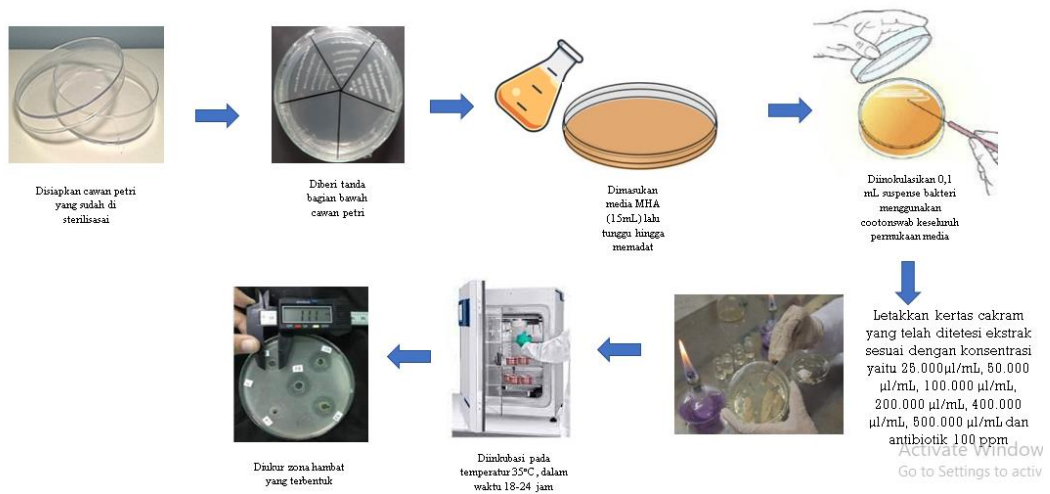
Appearance: Preserved Gel Matrix suspended in inoculating loop

pH: N/A

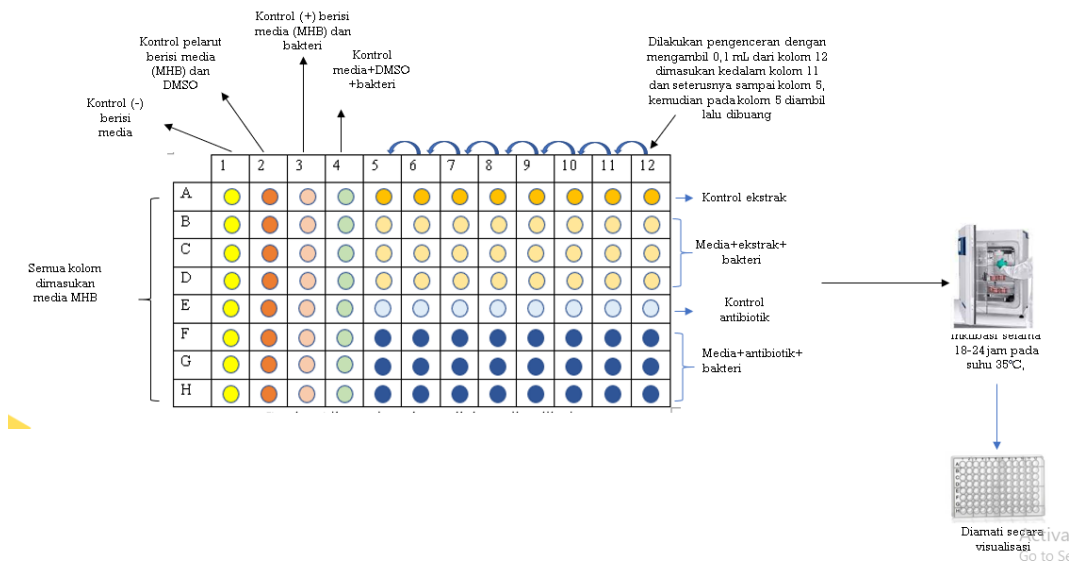
Lampiran 5 Alur Penelitian



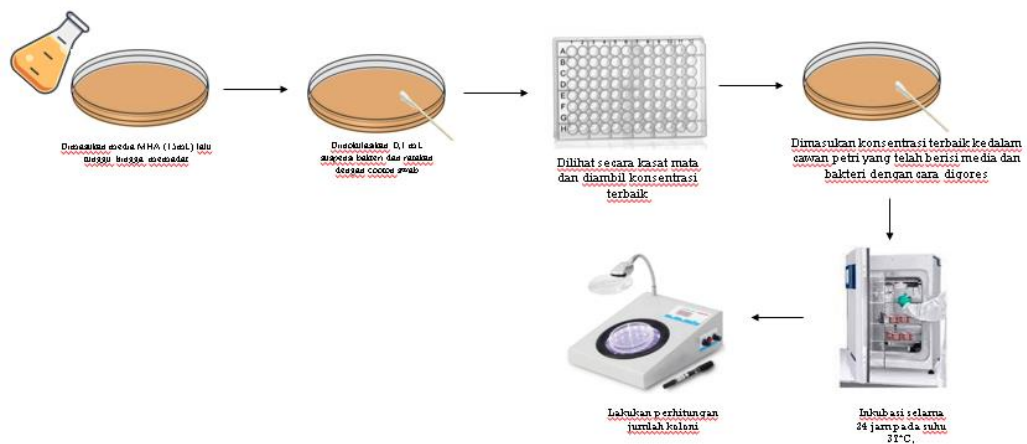
Lampiran 6 Alur Prosedur Cakram Kertas



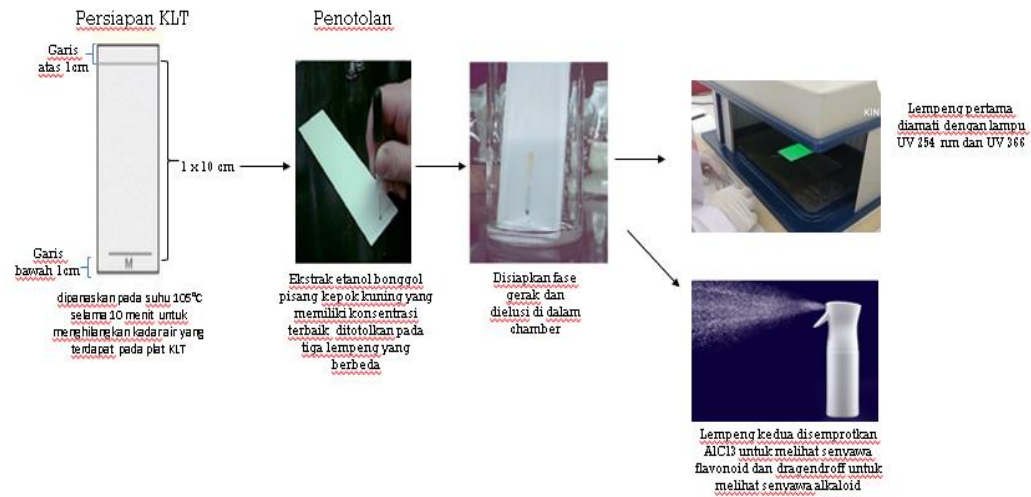
Lampiran 7 Alur Prosedur Metode Mikrodilusi



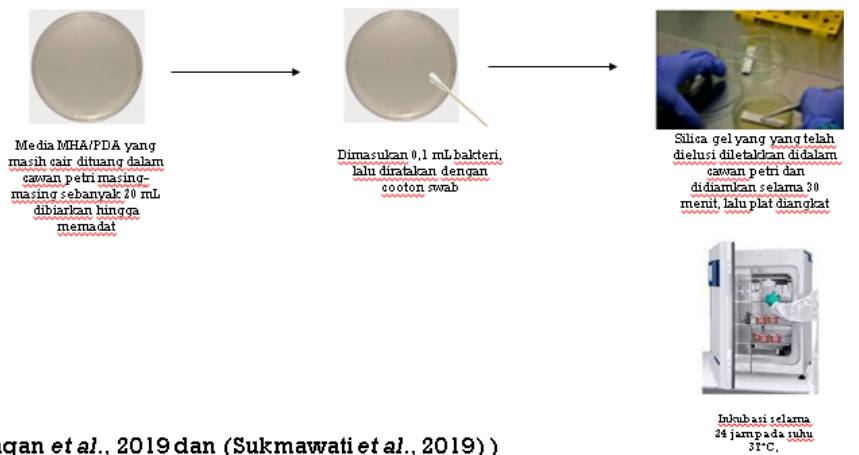
Penentuan KBM



Lampiran 8 Bioautografi



Lempeng ke3



(Paputungan *et al.*, 2019 dan (Sukmawati *et al.*, 2019))

Lampiran 9 Hasil Penelitian

a. Hasil Karakterisasi simplisia

Jenis karakterisasi	Sebelum	Sesudah
Susut pengeringan		
Kadar sari larut air		
Kadar sari larut etanol		

Perhitungan

- Kadar sari larut air

Berat bahan awal = 5 gram

Berat cawan kosong = 79,775 gram

Berat cawan + hasil pengeringan = 80,065 gram

$$\begin{aligned} \text{Kadar sari larut air} &= \frac{\text{berat sari larut air}}{\text{berat bahan awal}} \times \frac{100}{20} \times 100\% \\ &= \frac{80,065 - 79,775}{5 \text{ gram}} \times \frac{100}{20} \times 100\% \end{aligned}$$

Kadar sari larut air = 29%

- Kadar sari larut etanol

Berat bahan awal = 5 gram

Berat cawan kosong = 106,508 gram

Berat cawan + hasil pengeringan = 106,817 gram

$$\begin{aligned} \text{Kadar sari larut etanol} &= \frac{\text{berat sari larut etanol}}{\text{berat bahan awal}} \times \frac{100}{20} \times 100\% \\ &= \frac{106,817 - 106,508}{5 \text{ gram}} \times \frac{100}{20} \times 100\% \end{aligned}$$

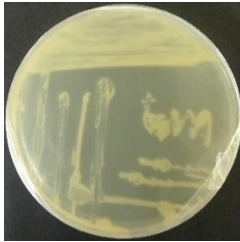
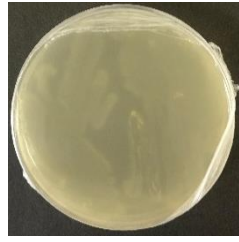
Kadar sari larut etanol = 30,6 %

Lampiran 9 (Lanjutan)

b. Hasil Skrining Fitokimia

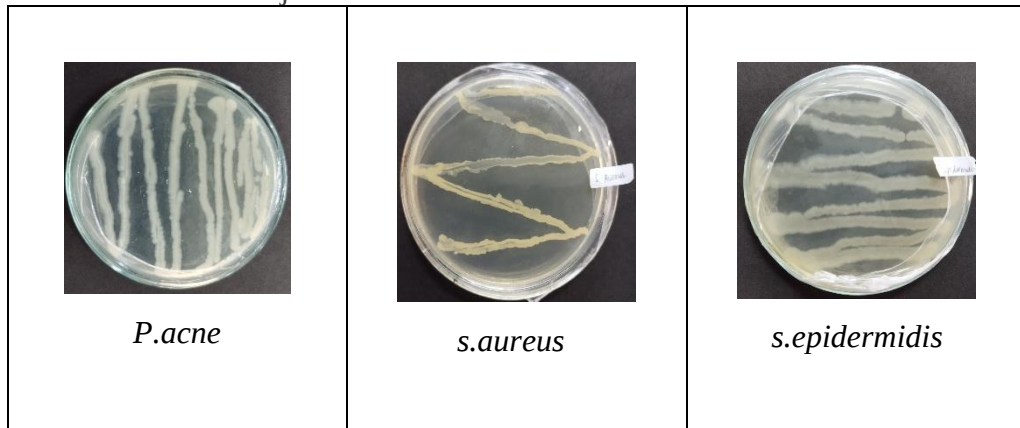
 Blanko	 Alkaloid	 Flavonoid
 Saponin	 Tanin	 Steroid/Triterpenoid

c. Bakteri Kultur Murni

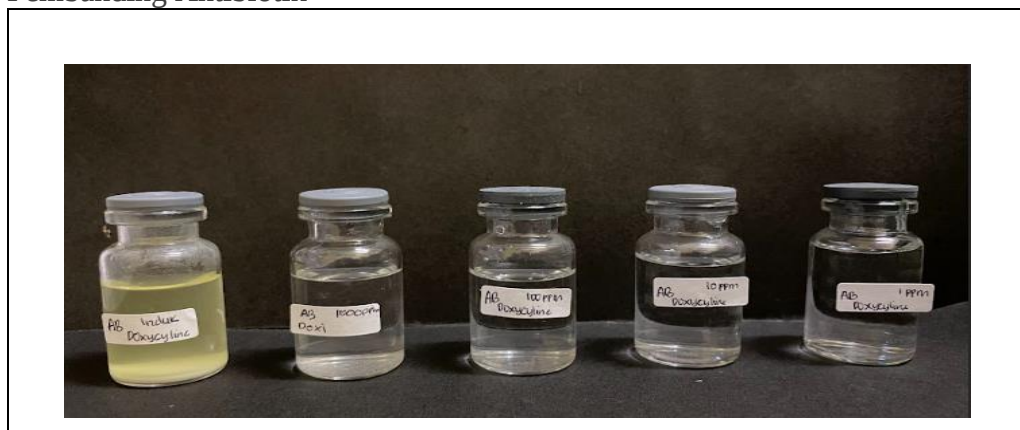
 <i>P.acne</i>	 <i>s.aureus</i>	 <i>s.epidermidis</i>
--	--	---

Lampiran 9 (Lanjutan)

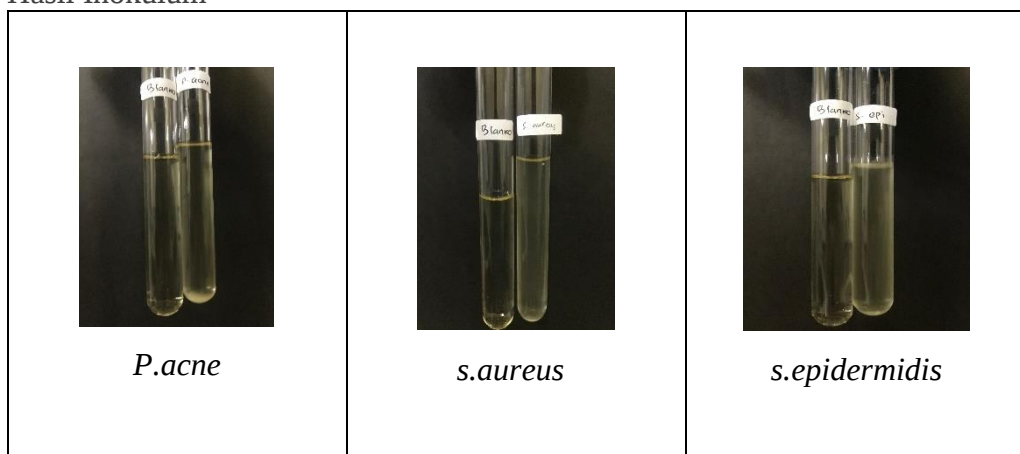
d. Bakteri Hasil Peremajaan



e. Pembanding Antibiotik

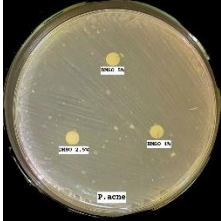
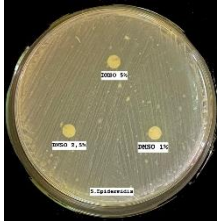
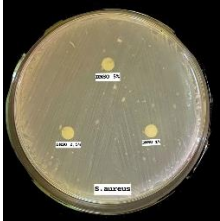
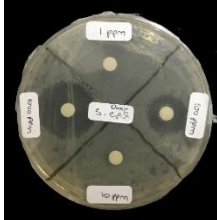
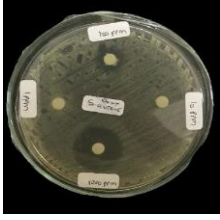


f. Hasil Inokulum

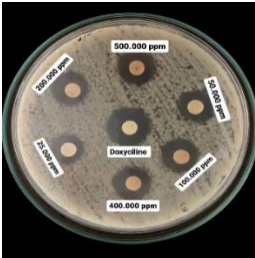
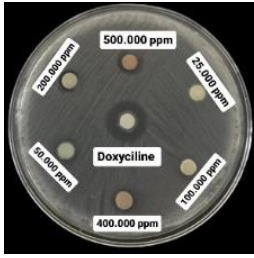
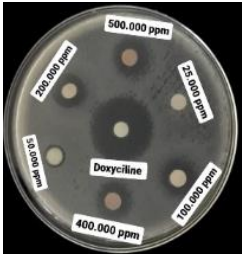


Lampiran 9 (Lanjutan)

g. Hasil Optimasi

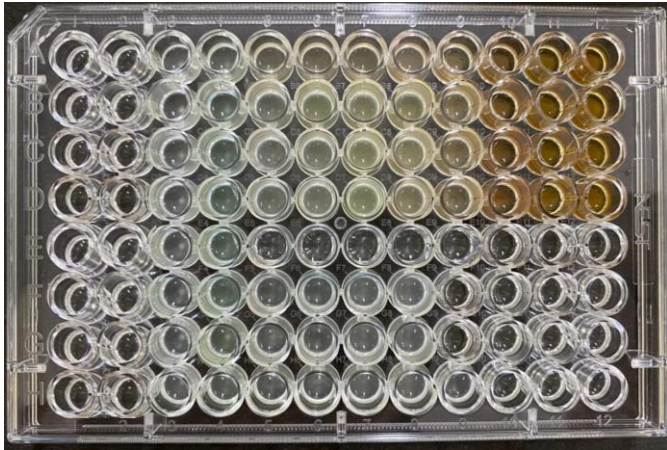
Optimasi	Bakteri		
	<i>P. Acne</i>	<i>S.Epidermidis</i>	<i>S.Aureus</i>
DMSO			
Antibiotik			

h. Hasil Uji Aktivitas

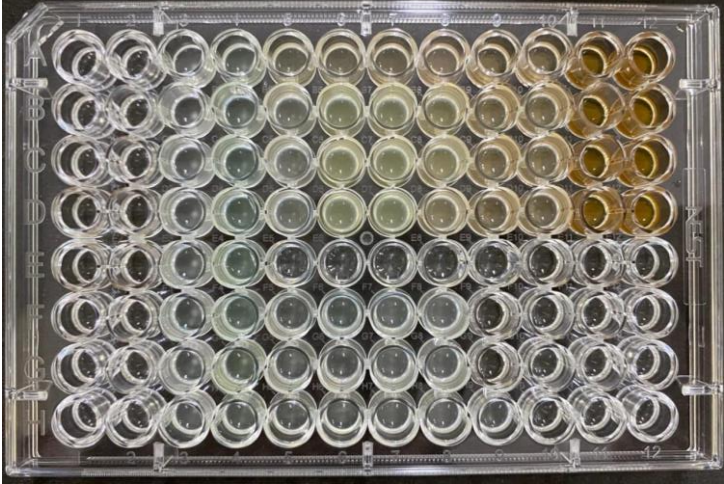
 <i>P.acne</i>	 <i>s.aureus</i>	 <i>s.epidermidis</i>
--	--	---

Lampiran 9 (Lanjutan)

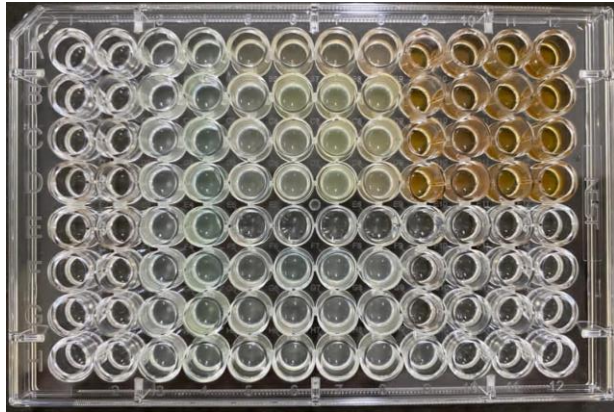
i. Hasil Mikrodilusi

Hasil	Keterangan																																																																																																																					
<i>S.Aureus</i> 	KHM 32,768 µg/mL, 16,768 µg/mL, 8,192 µg/mL																																																																																																																					
<table><tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr><tr><td>A</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr><tr><td>B</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr><tr><td>C</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr><tr><td>D</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr><tr><td>E</td><td>-</td><td>-</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>F</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr><tr><td>G</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr><tr><td>H</td><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td></tr></table>		1	2	3	4	5	6	7	8	9	10	11	12	A	-	-	+	+	+	+	+	+	+	-	-	-	B	-	-	+	+	+	+	+	+	+	-	-	-	C	-	-	+	+	+	+	+	+	+	-	-	-	D	-	-	+	+	+	+	+	+	+	-	-	-	E	-	-	+	+	-	-	-	-	-	-	-	-	F	-	-	+	+	+	+	+	+	+	-	-	-	G	-	-	+	+	+	+	+	+	+	-	-	-	H	-	-	+	+	+	+	+	+	+	-	-	-	
	1	2	3	4	5	6	7	8	9	10	11	12																																																																																																										
A	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
B	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
C	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
D	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
E	-	-	+	+	-	-	-	-	-	-	-	-																																																																																																										
F	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
G	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
H	-	-	+	+	+	+	+	+	+	-	-	-																																																																																																										
Keterangan: - = jernih + = keruh/ada endapan																																																																																																																						

Lampiran 9 (Lanjutan)

Hasil												Keterangan
<i>S.Epidermidis</i>												KHM 32,768 µg/mL, 16,768 µg/mL
												Keterangan: - = jernih + = keruh/ada endapan
	1	2	3	4	5	6	7	8	9	10	11	12
A	-	-	+	+	+	+	+	+	+	+	-	-
B	-	-	+	+	+	+	+	+	+	+	-	-
C	-	-	+	+	+	+	+	+	+	+	-	-
D	-	-	+	+	+	+	+	+	+	+	-	-
E	-	-	+	+	-	-	-	-	-	-	-	-
F	-	-	+	+	+	+	+	+	-	-	-	-
G	-	-	+	+	+	+	+	+	-	-	-	-
H	-	-	+	+	+	+	+	+	-	-	-	-

Lampiran 9 (Lanjutan)

Hasil	Keterangan																																																																																																																					
<i>P.acne</i> 	KHM 32,768 µg/mL, 16,768 µg/mL, 8,192 µg/mL, 4,096																																																																																																																					
<table><tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th></tr><tr><th>A</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr><tr><th>B</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr><tr><th>C</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr><tr><th>D</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr><tr><th>E</th><td>-</td><td>-</td><td>+</td><td>+</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><th>F</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr><tr><th>G</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr><tr><th>H</th><td>-</td><td>-</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></tr></table>		1	2	3	4	5	6	7	8	9	10	11	12	A	-	-	+	+	+	+	+	+	+	+	+	+	B	-	-	+	+	+	+	+	+	+	+	+	+	C	-	-	+	+	+	+	+	+	+	+	+	+	D	-	-	+	+	+	+	+	+	+	+	+	+	E	-	-	+	+	-	-	-	-	-	-	-	-	F	-	-	+	+	+	+	+	+	+	+	+	+	G	-	-	+	+	+	+	+	+	+	+	+	+	H	-	-	+	+	+	+	+	+	+	+	+	+	
	1	2	3	4	5	6	7	8	9	10	11	12																																																																																																										
A	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										
B	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										
C	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										
D	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										
E	-	-	+	+	-	-	-	-	-	-	-	-																																																																																																										
F	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										
G	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										
H	-	-	+	+	+	+	+	+	+	+	+	+																																																																																																										

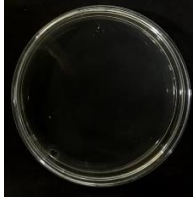
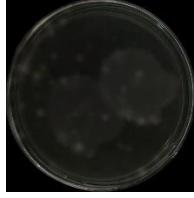
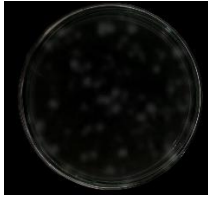
Keterangan:

- = jernih

+ = keruh/ada endapan

Lampiran 9 (Lanjutan)

I. Hasil KBM

<i>S.aureus</i>	
Ekstrak Bonggol Pisang Kepok 	Antibiotik Doksisiklin 
<i>S.epidermidis</i>	
Ekstrak Bonggol Pisang Kepok 	Antibiotik Doksisiklin 
<i>P.acne</i>	
Ekstrak Bonggol Pisang Kepok 	Antibiotik Doksisiklin 

Perhitungan

Jumlah koloni bakteri awal dalam 1 well = 5×10^4 CFU/0,1 mL

Ekstrak etanol bonggol pisang kepok

a. 7 koloni bakteri *S.Aureus*

$$\% \text{ inhibisi} = \frac{\text{jumlah koloni bakteri awal} - \text{jumlah koloni bakteri akhir}}{\text{jumlah koloni awal}} \times 100\%$$

$$= \frac{50.000 - 7}{50.000} \times 100\%$$

$$= \frac{49.993}{50.000} \times 100\%$$

$$\% \text{ inhibisi} = 99,9 \%$$

b. 3 koloni bakteri *S.Epidermidis*

$$\begin{aligned}\% \text{ inhibisi} &= \frac{\text{jumlah koloni bakteri awal} - \text{jumlah koloni bakteri akhir}}{\text{jumlah koloni awal}} \times 100\% \\ &= \frac{50.000 - 3}{50.000} \times 100\% \\ &= \frac{49.997}{50.000} \times 100\%\end{aligned}$$

$$\% \text{ inhibisi} = 99,9 \%$$

c. 12 koloni bakteri *S.Epidermidis*

$$\begin{aligned}\% \text{ inhibisi} &= \frac{\text{jumlah koloni bakteri awal} - \text{jumlah koloni bakteri akhir}}{\text{jumlah koloni awal}} \times 100\% \\ &= \frac{50.000 - 12}{50.000} \times 100\% \\ &= \frac{49.988}{50.000} \times 100\%\end{aligned}$$

$$\% \text{ inhibisi} = 99,9 \%$$

d. 84 koloni bakteri *S.Epidermidis*

$$\begin{aligned}\% \text{ inhibisi} &= \frac{\text{jumlah koloni bakteri awal} - \text{jumlah koloni bakteri akhir}}{\text{jumlah koloni awal}} \times 100\% \\ &= \frac{50.000 - 84}{50.000} \times 100\% \\ &= \frac{49.946}{50.000} \times 100\%\end{aligned}$$

$$\% \text{ inhibisi} = 99,8 \%$$

e. 94 koloni bakteri *S.Epidermidis*

$$\begin{aligned}\% \text{ inhibisi} &= \frac{\text{jumlah koloni bakteri awal} - \text{jumlah koloni bakteri akhir}}{\text{jumlah koloni awal}} \times 100\% \\ &= \frac{50.000 - 94}{50.000} \times 100\% \\ &= \frac{49.906}{50.000} \times 100\%\end{aligned}$$

$$\% \text{ inhibisi} = 99,8 \%$$

f. 107 koloni bakteri *S.Epidermidis*

$$\begin{aligned}\% \text{ inhibisi} &= \frac{\text{jumlah koloni bakteri awal} - \text{jumlah koloni bakteri akhir}}{\text{jumlah koloni awal}} \times 100\% \\ &= \frac{50.000 - 107}{50.000} \times 100\% \\ &= \frac{49.893}{50.000} \times 100\%\end{aligned}$$

$$\% \text{ inhibisi} = 99,7 \%$$

Lampiran 9 (Lanjutan)

J. Hasil KLT

			
Uv: 254	Uv: 366	Penampak spesifik sitoborat	Penampak bercak H2SO4

Perhitungan harga Rf ekstrak bonggol pisang kepok

Panjang plat KLT = 6 cm

Lebar plat KLT = 1cm

Batas atas 1cm dan batas bawah 0,5 cm

Eluen= Etil Asetat : metanol : air (12:2:0,5)

- Rf1

Jarak yang ditempuh analit = 4,2

Jarak yang ditempuh eluen = 4,5

$$Rf1 = \frac{\text{jarak yang ditempuh analit}}{\text{jarak yang ditempuh eluen}}$$

$$Rf1 = \frac{4,2}{4,5}$$

$$Rf1 = 0,93$$

- Rf2

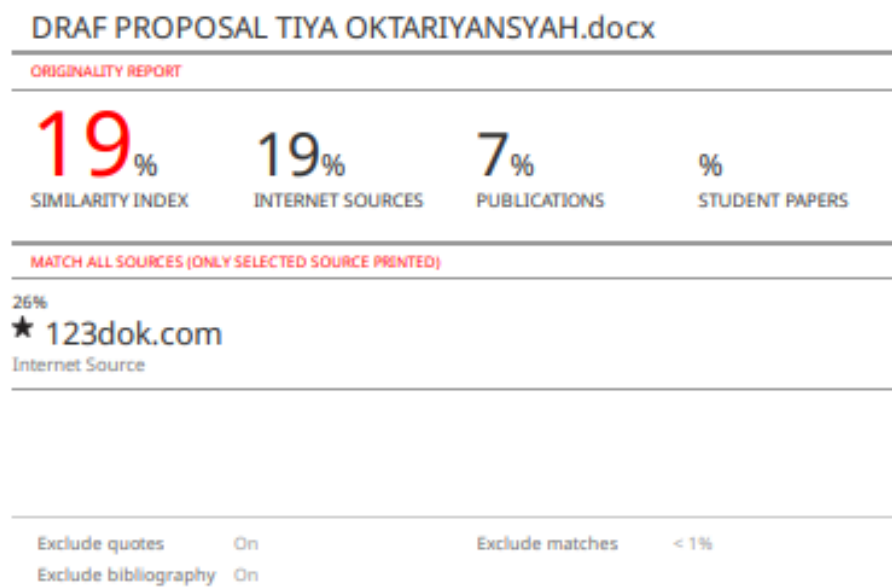
Jarak yang ditempuh analit = 4,9

Jarak yang ditempuh eluen = 4,5

$$Rf2 = \frac{\text{jarak yang ditempuh analit}}{\text{jarak yang ditempuh eluen}}$$

$$Rf2 = \frac{4,9}{4,5} = 1,08$$

Lampiran 10 Hasil Turnitin



KARTU BIMBINGAN TUGAS AKHIR

Pembimbing Utama	: Ad. Ma Nurra Sumardi, M.Si
Nama Mahasiswa	: Tya Ouwaryangsyah
NPM	: 220609049
Bidang Ilmu	: Farmakologi dan Terapi Wabah

[illegible]

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing

KARTU BIMBINGAN TUGAS AKHIR

Pembimbing Serta	: Dr. apt. Yani Mulyani, M.Si.
Nama Mahasiswa	: Tiya Outarungnyanah
NPM	: 2211160404
Bidang Ilmu	: Farmakologi dan Farmasi Klinis.

[illegible]

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

Lampiran 12 Riwayat Hidup



BIODATA

Nama Lengkap	: Tiya Oktariyansyah
Nama Panggilan	: Tiya
Tempat/Tanggal Lahir	: Kotabumi, 03 Oktober 2001
Jenis Kelamin	: Perempuan
Agama	: Islam
Alamat	: Jl.Mt.Haryono, Gang.Merapi 01 No.138, Kelapa Tujuh, Kotabumi Selatan, Lampung Utara
Email	: @tiyaoktariyansyah@gmail.com
Nama Ayah	: Sahruji
Nama Ibu	: Susilawati
Anak ke	: 3 dari 3 bersaudara