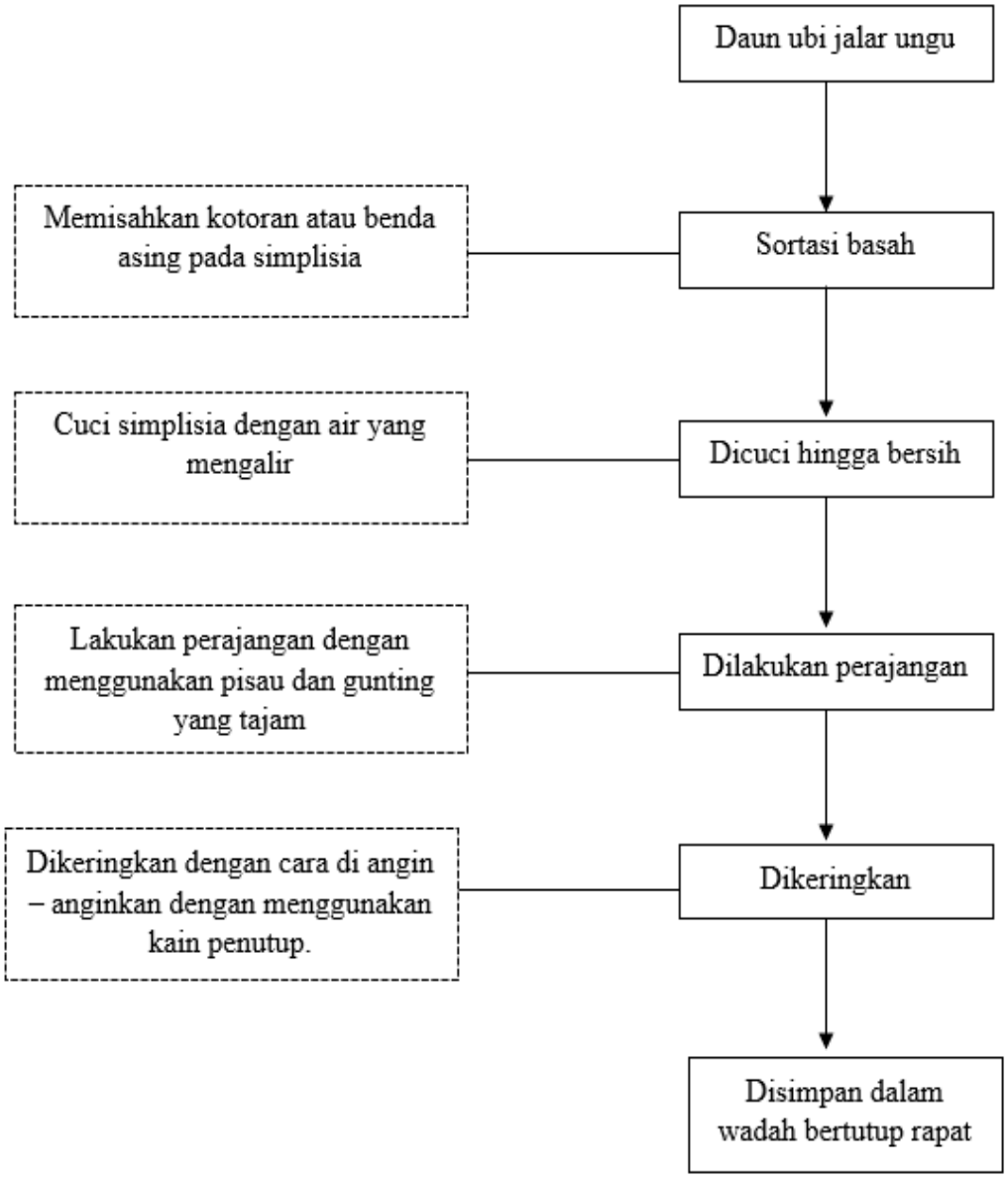
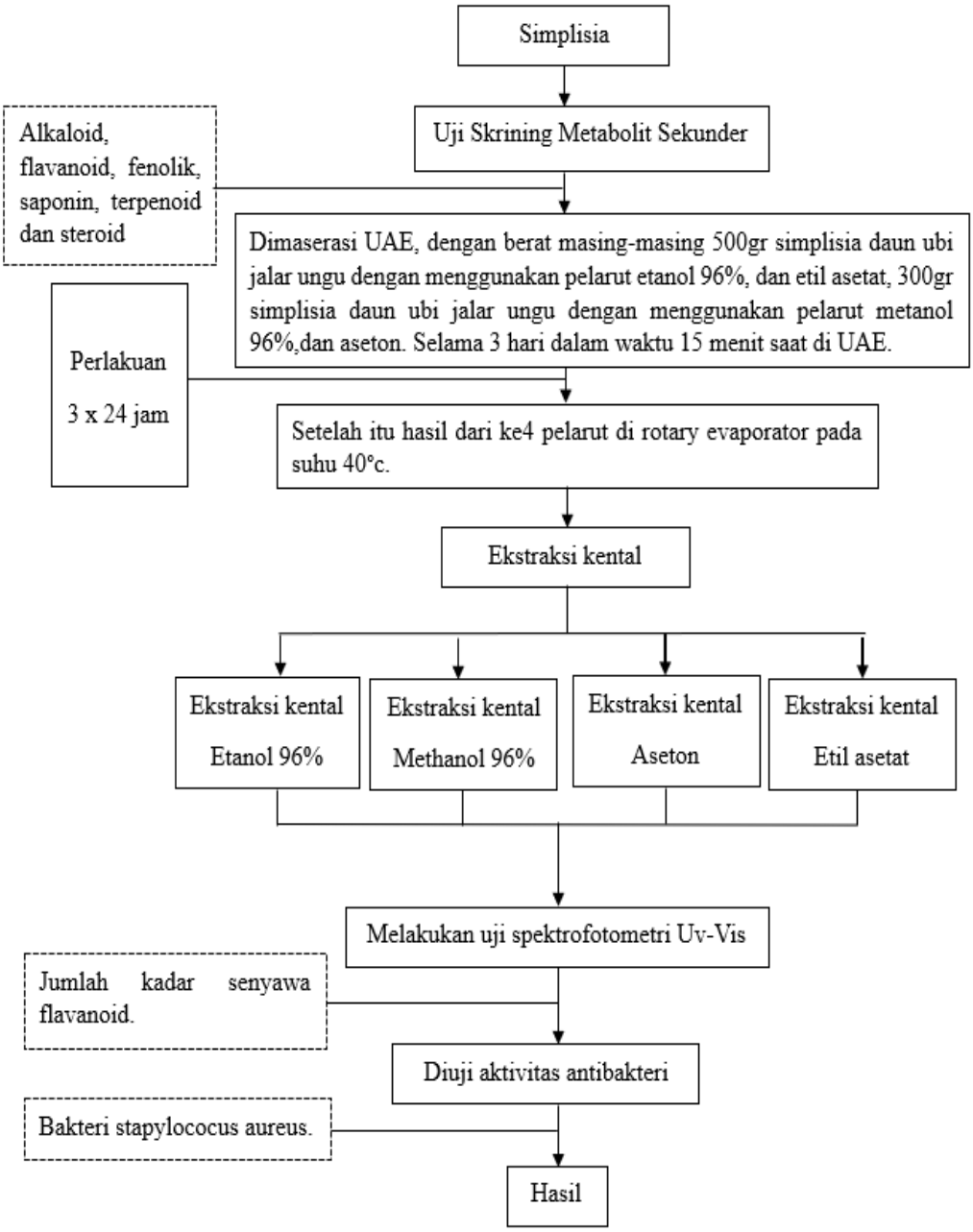
LAMPIRAN

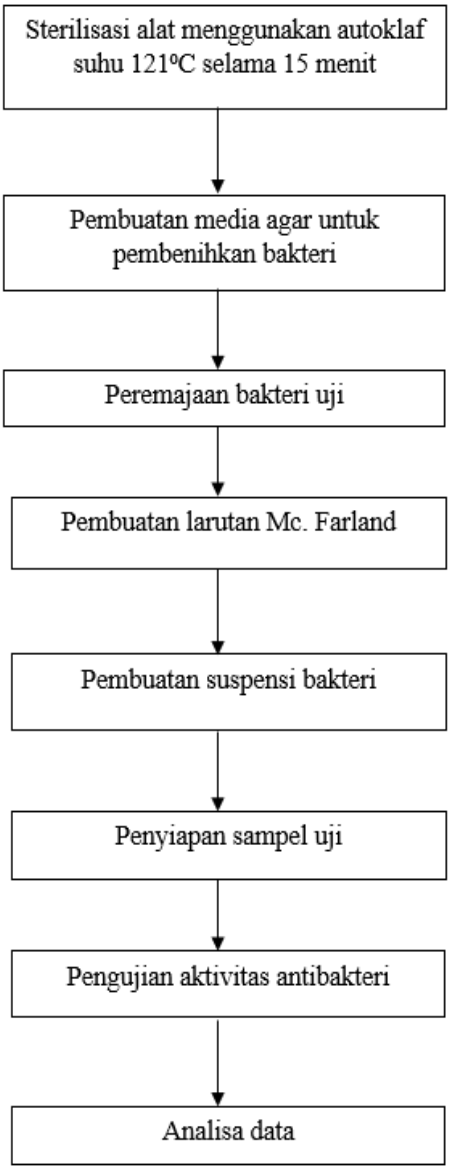
Lampiran 1. Skema Pembuatan Simplisia



Lampiran 2. Skema kerja ekstraksi daun ubi jalar ungu



Lampiran 3. Skema Kerja Aktivitas Antibakteri Daun Ubi Jalar Ungu



Lampiran 4. Perhitugan Pembuatan Larutan Analisis Kadar Flavanoid

1. Perhitungan Larutan Induk Kuarsetin

   $$1000\ \mu g/ml = \frac{1000\ mg}{1000\ ml} = \frac{10\ mg}{0{,}01\ L} = \frac{10.000\ \mu g}{10\ ml}$$

   Timbang kuersetin sebanyak 10 mg kemudian di ad dengan aquadest dalam labu ukur 10 ml.

2. Perhitungan Pengenceran Konsentrasi Kuersentin

   a. 100 µg/ml

      V1 x M1 = V2 x M2
      V1 x 1000 ppm = 10 ml x 100 ppm
      V1 x 1000 ppm = 1000 ml
      V1 = 1000 : 1000
      = 1 ml ⟶ 1.000 µL

   b. 80 µg/ml

      V1 x M1 = V2 x M2
      V1 x 1000 ppm = 10 ml x 80 ppm
      V1 x 1000 ppm = 800 ml
      V1 = 800 : 1000
      = 0,8 ml ⟶ 800 µL

   c. 60 µg/ml

      V1 x M1 = V2 x M2
      V1 x 1000 ppm = 10 ml x 60 ppm
      V1 x 1000 ppm = 600 ml
      V1 = 600 : 1000
      = 0,6 ml ⟶ 600 µL

   d. 40 µg/ml

      V1 x M1 = V2 x M2
      V1 x 1000 ppm = 10 ml x 40 ppm
      V1 x 1000 ppm = 400 ml
      V1 = 400 : 1000

= 0,4 ml ⟶ 400 µL

e. 20 µg/ml

V1 x M1 = V2 x M2

V1 x 1000 ppm = 10 ml x 20 ppm

V1 x 1000 ppm = 200 ml

V1 = 200 : 1000

= 0,2 ml ⟶ 200 µL

3. Pembuatan AICI3 10%

Larutan AICI3 di dibuat menjadi 10%

$$\text{AlCl3 } 10\% = \frac{10\text{ g}}{100\text{ ml}} = \frac{1\text{ g}}{100\text{ ml}}$$

Di pipet AICI3 Sebanyak 1 gr dan di larutkan dengan aquadest menggunakan labu ukur 100 ml.

4. Pembuatan CH3COOH 5%

Larutan CH3COOH dibuat menjad 5%

$$\text{CH3COOH } 5\% = \frac{500\text{ ml}}{100\text{ ml}} = \frac{5\text{ ml}}{100\text{ ml}}$$

Di pipet CH3COOH sebanyak 5 ml dan di larutkan dengan aquadest menggunakan labu ukur 100 ml.

5. Pembuatan Larutan Uji 1000 µg/Ml

$$1000\ \mu g/ml = \frac{1000\ mg}{1000\ ml} = \frac{50\ mg}{0{,}01\ L} = \frac{50.000\ \mu g}{10\ ml}$$

6. Faktor Pengenceran

$$\text{FP} = \frac{\text{Volume labu}}{\text{volume yang diambil}}$$

$$\text{FP} = \frac{10\text{ ml}}{1\text{ ml}} = 10$$

Lampiran 5. Pembuatan Larutan Uji Aktivitas Antibakteri.

a. Hitung Larutan Uji Ekstrak Daun Ubi Jalar ungu

Diketahui:

1 mg = 1.000 µg 1 mL = 1.000 µL 1 disk = 10 µL

Dilarutkan dalam 2ml DMSO 10% :

- Konsentrasi 160 mg/ml

  160 mg/ml x 2 ml = 320 mg

  Ditimbang 320 mg ekstrak dan dilarutkan dalam 2 ml DMSO 10%

  Konversi larutan $\frac{320\ \text{mg}}{2\ \text{ml}} = 160\ \text{mg/ml}$

  160 mg = 160.000 µg

  1 mL = 1.000 µL

  $\frac{160.000\mu g}{1.000\ \mu L} = 160\ \mu g/\mu L$

  160 µg/µL x 10 µL = 1.600 µg/disk

  Jadi 1.600 µg/disk setara dengan 160 mg/ml

  Larutan lalu diambil dengan pipet mikro sebanyak 10 µL diteteskan diatas kertas cakram steril.

  Perbandingan % larutan ekstrak dengan antibiotik kloramfenikol

  $\frac{\text{Kloramfenikol}}{\text{Ekstrak}}$ X 100% $\longrightarrow$ $\frac{30\ \mu g/disk}{1.600\ \mu g/disk}$ X 100% = 1.875%

- Konsentrasi 320 mg/ml

  320 mg/ml x 2 ml = 640 mg

  Ditimbang 640 mg ekstrak dan dilarutkan dalam 2 ml DMSO 10%

  Konversi larutan $\frac{640\ \text{mg}}{2\ \text{ml}} = 320\ \text{mg/ml}$

  320 mg = 320.000 µg

  1 mL = 1.000 µL

  $\frac{320.000\mu g}{1.000\ \mu L} = 320\ \mu g/\mu L$

320 µg/µL x 10 µL = 3.200 µg/disk

Jadi 3.200 µg/disk setara dengan 320 mg/ml

Larutan lalu diambil dengan pipet mikro sebanyak 10 µL diteteskan diatas kertas cakram steril.

Perbandingan % larutan ekstrak dengan antibiotik kloramfenikol

$$\frac{\text{Kloramfenikol}}{\text{Ekstrak}} \text{ X } 100\% \longrightarrow \frac{30\ \mu g/disk}{3.200\ \mu g/disk} \text{ X } 100\% = 0.937\%$$

- Konsentrasi 640 mg/ml

  640 mg/ml x 2 ml = 1.280 mg

  Ditimbang 1.280 mg ekstrak dan dilarutkan dalam 2 ml DMSO 10%

  Konversi larutan $\frac{1.280\ mg}{2\ ml} = 640\ mg/ml$

  640 mg = 640.000 µg

  1 mL = 1.000 µL

  $\frac{640.000 \mu g}{1.000\ \mu L} = 640\ \mu g/\mu L$

  640 µg/µL x 10 µL = 6.400 µg/disk

  Jadi 6.400 µg/disk setara dengan 640 mg/ml

  Larutan lalu diambil dengan pipet mikro sebanyak 10 µL diteteskan diatas kertas cakram steril.

  Perbandingan % larutan ekstrak dengan antibiotik kloramfenikol

  $$\frac{\text{Kloramfenikol}}{\text{Ekstrak}} \text{ X } 100\% \longrightarrow \frac{30\ \mu g/disk}{6.400\ \mu g/disk} \text{ X } 100\% = 0.468\%$$

b. Hitungan % Daya Hambat Antar Kelompok Uji Dengan Antibiotik Kloramfenikol Sebagai Kontrol Positif.

Rumus :

$$\frac{\text{Zona hambat ekstrak}}{\text{Zona hambat kloramfenikol}} \text{ x } 100\%$$

- Ekstrak Etanol 96%

Konsentrasi 1.600 µg/disk	Konsentrasi 3.200 µg/disk	Konsentrasi 6.400 µg/disk
$\frac{8.6\text{ mm}}{32.4\text{ mm}}$ x 100% = 26,543%	$\frac{10.8\text{ mm}}{32.4\text{ mm}}$ x 100% = 33,333%	$\frac{14.5\text{ mm}}{32.4\text{ mm}}$ x 100% = 44,753%

- Ekstrak Metanol 96%

Konsentrasi 1.600 µg/disk	Konsentrasi 3.200 µg/disk	Konsentrasi 6.400 µg/disk
$\frac{13.0\text{ mm}}{24.1\text{ mm}}$ x 100% = 53,941%	$\frac{14.8\text{ mm}}{24.1\text{ mm}}$ x 100% = 61,410%	$\frac{20.5\text{ mm}}{24.1\text{ mm}}$ x 100% = 85,062%

- Ektrak Aseton

Konsentrasi 1.600 µg/disk	Konsentrasi 3.200 µg/disk	Konsentrasi 6.400 µg/disk
$\frac{12.1\text{mm}}{24.6\text{ mm}}$ x 100% = 49,186%	$\frac{14.3\text{mm}}{24.6\text{ mm}}$ x 100% = 58,130%	$\frac{18,3\text{ mm}}{24.6\text{ mm}}$ x 100% = 74,390%

- Ekstrak Etil Asetat

Konsentrasi 1.600 µg/disk	Konsentrasi 3.200 µg/disk	Konsentrasi 6.400 µg/disk
$\frac{3.5\text{ mm}}{28.3\text{ mm}}$ x 100% = 12.367%	$\frac{4.3\text{ mm}}{28.3\text{ mm}}$ x 100% = 15.194%	$\frac{6.3\text{ mm}}{28.3\text{ mm}}$ x 100% = 22.261%

c. Hitung Daya Hambat Antar Kelompok Dengan Jumlah Dosis Ekstrak Yang Sama Dengan Kloramfenikol.

Rumus :

$$\frac{\text{konsentrasi µg esktrak}}{\text{konsentrasi µg kloramfenikol}} = \frac{\text{zona hambat ekstrak}}{\text{hasil konsentrasi}} = \frac{\text{hasil}}{\text{zona hambat kloramfenikol}}$$

- Ekstrak Etanol 96%

  Konsentrasi 1.600 µg/disk

  $\frac{1.600\text{ µg/disk}}{30\text{ µg/disk}} = \frac{8,6}{53,3} = \frac{0,161}{32,4}$ x 100% = 0,4%

  Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,4% dari ekstrak daun ubi jalar ungu.

Konsentrasi 3.200 µg/disk

$$\frac{3.200\ \mu g/disk}{30\ \mu g/disk} = \frac{10,8}{106,6} = \frac{0,101}{32,4} \text{ x } 100\% = 0,3\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,3% dari ekstrak daun ubi jalar ungu.

Konsentrasi 3.200 µg/disk

$$\frac{6.400\ \mu g/disk}{30\ \mu g/disk} = \frac{14,5}{213,3} = \frac{0,065}{32,4} \text{ x } 100\% = 0,2\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,2% dari ekstrak daun ubi jalar ungu.

- Ekstrak Metanol 96%

Konsentrasi 1.600 µg/disk

$$\frac{1.600\ \mu g/disk}{30\ \mu g/disk} = \frac{13,0}{53,3} = \frac{0,243}{24,1} \text{ x } 100\% = 1,0\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 1,0% dari ekstrak daun ubi jalar ungu.

Konsentrasi 3.200 µg/disk

$$\frac{3.200\ \mu g/disk}{30\ \mu g/disk} = \frac{14,8}{106,6} = \frac{0,138}{24,1} \text{ x } 100\% = 0,5\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,5% dari ekstrak daun ubi jalar ungu.

Konsentrasi 6.400 µg/disk

$$\frac{6.400\ \mu g/disk}{30\ \mu g/disk} = \frac{20.5}{213,3} = \frac{0,096}{24,1} \text{ x } 100\% = 0,3\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,3% dari ekstrak daun ubi jalar ungu.

- Ekstrak Aseton

  Konsentrasi 1.600 µg/disk

  $\frac{1.600\ \mu g/disk}{30\ \mu g/disk} = \frac{12,1}{53,3} = \frac{0,227}{24,6}$ x 100% = 0,9%

  Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,9% dari ekstrak daun ubi jalar ungu.

  Konsentrasi 3.200 µg/disk

  $\frac{3.200\ \mu g/disk}{30\ \mu g/disk} = \frac{14,3}{106,6} = \frac{0,134}{24,6}$ x 100% = 0,5%

  Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,5% dari ekstrak daun ubi jalar ungu.

  Konsentrasi 6.400 µg/disk

  $\frac{6.400\ \mu g/disk}{30\ \mu g/disk} = \frac{18,3}{213,3} = \frac{0,085}{24,6}$ x 100% = 0,3%

  Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,3% dari ekstrak daun ubi jalar ungu.

- Ekstrak Etil Asetat

  Konsentrasi 1.600 µg/disk

  $\frac{1.600\ \mu g/disk}{30\ \mu g/disk} = \frac{3,5}{53,3} = \frac{0,065}{28,3}$ x 100% = 0,2%

  Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,2% dari ekstrak daun ubi jalar ungu.

Konsentrasi 3.200 µg/disk

$$\frac{3.200\ \mu g/disk}{30\ \mu g/disk} = \frac{4,3}{106,6} = \frac{0,040}{28,3} \text{ x } 100\% = 0,1\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,1% dari ekstrak daun ubi jalar ungu.

Konsentrasi 6.400 µg/disk

$$\frac{6.400\ \mu g/disk}{30\ \mu g/disk} = \frac{6,3}{213,3} = \frac{0,029}{28,3} \text{ x } 100\% = 0,1\%$$

Dari 30 µg/disk kloramfenikol hanya terdapat kekuatan 0,1% dari ekstrak daun ubi jalar ungu.

Lampiran 6. Perhitungan Media Agar NA *(Natrium Agar*)

Diketahui :

- Cawan petri : 20 ml
- Tabung : 10 ml
- Ketentuan NA (Himedia) : 28 gr/1000 ml

Jumlah yang diperlukan :

- 12 cawan petri untuk media datar
- 4 tabung reaksi untuk media miring

Penyelesaian :

20 ml x 12 cawan = 240 ml

10 ml x 4 tabung reaksi = 40 ml

Total aquadest 240 ml + 40 ml = 280 ml dilebihkan menjadi 300 ml

Maka, banyaknya media yang di butuhkan adalah

$$\frac{28 \text{ gram}}{1.000 \text{ ml}} \text{ x } 300 \text{ ml} = 8{,}4 \text{ gram}$$

Lampiran 7. Perhitungan % Rendemen

Rumus :

$$\%\ Rendemen = \frac{bobot\ ekstrak\ kental\ (gram)}{bobot\ simplisia\ awal\ (gram)} \times 100\%$$

- Ekstrak Etanol 96% Daun Ubi Jalar Ungu

  Berat awal serbuk : 500 gr

  Berat akhir ekstrak : 42.34 gr

  $$\%\ \text{Rendemen} = \frac{42.34\ \text{gr}}{500\ \text{gr}} \times 100\% = 8.58\%$$

- Ekstrak Metanol 96% Daun Ubi Jalar Ungu

  Berat awal serbuk : 300 gr

  Berat akhir ekstrak : 23.84 gr

  $$\%\ \text{Rendemen} = \frac{23.84\ \text{gr}}{300\ \text{gr}} \times 100\% = 7.94\%$$

- Ekstrak Aseton Daun Ubi Jalar Ungu

  Berat awal serbuk : 300 gr

  Berat akhir ekstrak : 26.92 gr

  $$\%\ \text{Rendemen} = \frac{26.92\ \text{gr}}{300\ \text{gr}} \times 100\% = 8.97\ \%$$

- Ekstrak Etil Asetat Daun Ubi Jalar Ungu

  Berat awal serbuk : 500 gr

  Berat akhir ekstrak : 54.84 gr

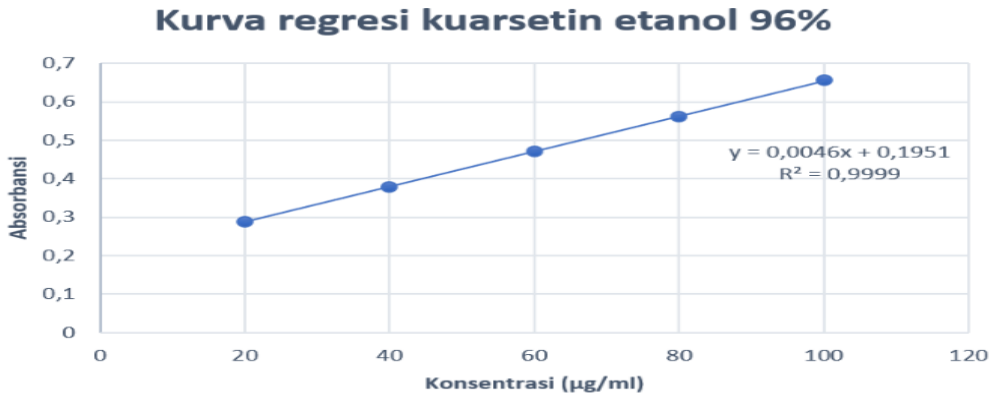
  $$\%\ \text{Rendemen} = \frac{54.84\ \text{gr}}{500\ \text{gr}} \times 100\% = 10.97\ \%$$

Lampiran 8. Uji Skrining Fitokimia Daun Ubi Jalar Ungu

Ekstrak	Uji	Pereaksi	Hasil	Keterangan	Gambar
Daun ubi jalar ungu (*Ipomea batatas*)	Alkaloid	Mayer + asam sulfat + klorofom amoniak	+	Terjadi endapan putih	
		Dragendrof + asam sulfat + klorofom amoniak	+	Terbentuk endapan warna menjadi jingga	
	Flavonoid	HCL + mg	+	Terbentuk perubahan warna menjadi jingga	
	Tanin	feCl3 1%	+	Terbentuk warna hijau kehitaman	
	Saponin	HCL + aquadest panas	+	Terbentuknya busa tau buih	
	Terpenoid	CHCL3 + (CH3CO)2 + H2SO4	-	Tidak terbentuk warna cicin kecoklattan	
	Streoid		-	Tidak terbentuk cicin biru kehijauan	

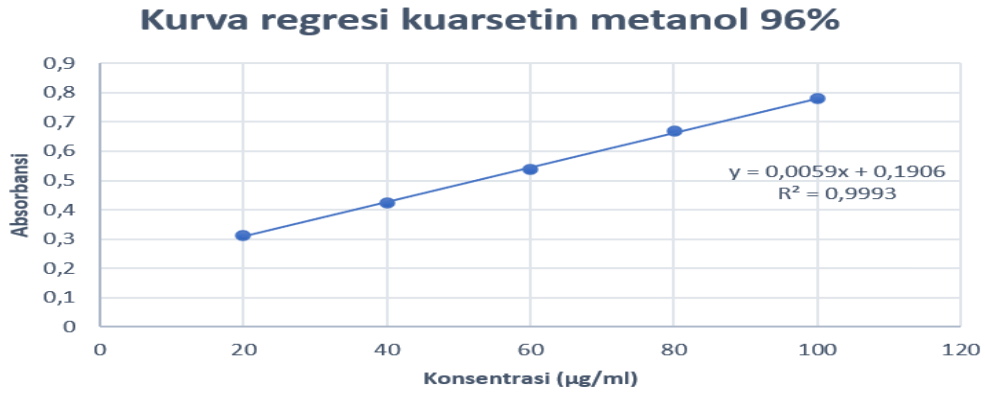
Lampiran 9. Kurva Regresi Kuarsetin Etanol 96%

Larutan standar	Kosentrasi	Absorbansi
Kuarsetin	20 µg/ml	0,288
	40 µg/ml	0,378
	60 µg/ml	0,471
	80 µg/ml	0,561
	90 µg/ml	0,656



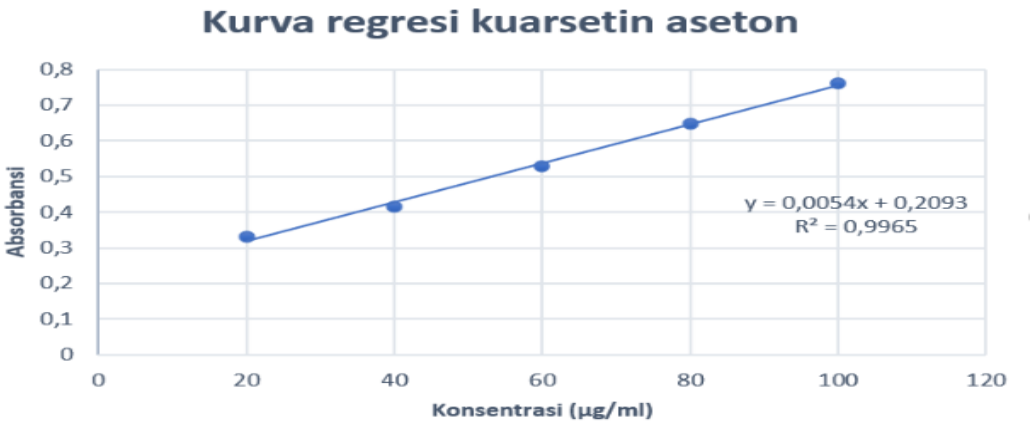
Lampiran 10. Kurva Regresi Kuarsetin Metanol 96%

Larutan standar	Kosentrasi	Absorbansi
Kuarsetin	20 µg/ml	0,313
	40 µg/ml	0,423
	60 µg/ml	0,539
	80 µg/ml	0,669
	90 µg/ml	0,780



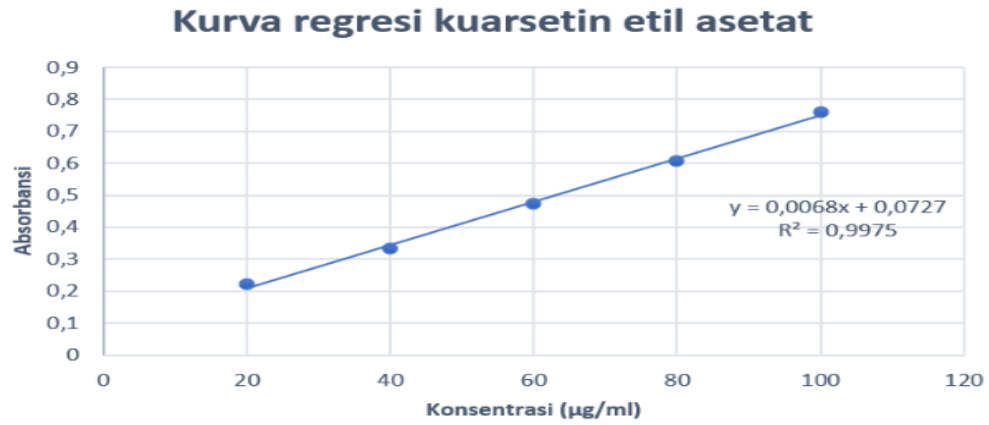
Lampiran 11. Kurva Regresi Kuarsetin Aseton

Larutan standar	Kosentrasi	Absorbansi
Kuarsetin	20 µg/ml	0,331
	40 µg/ml	0,415
	60 µg/ml	0,530
	80 µg/ml	0,647
	90 µg/ml	0,761



Lampiran 12. Kurva Regresi Kuarsetin etil asetat

Larutan standar	Kosentrasi	Absorbansi
Kuarsetin	20 µg/ml	0,221
	40 µg/ml	0,334
	60 µg/ml	0,473
	80 µg/ml	0,609
	90 µg/ml	0,762



Lampiran 13. Absorbansi Kurva Kalibrasi Kuersetin

Ekstrak		Absorbansi	x (μg/ml)	x (mg/mL)	Rata-rata
Ekstrak etanol 96%	Replikasi 1	0,549	76,891	0,076891	78,63
	Replikasi 2	0,557	78,630	0,078630	
	Replikasi 3	0,565	80,369	0,080369	
Esktrak metanol 96%	Replikasi 1	0,552	61,254	0,061254	53,965
	Replikasi 2	0,493	51,254	0,051254	
	Replikasi 3	0,482	49,389	0,049389	
Ekstrak asetone	Replikasi 1	0,302	17,166	0,017166	17,437
	Replikasi 2	0,304	17,537	0,017722	
	Replikasi 3	0,305	17,722	0,017722	
Ekstrak etil asetat	Replikasi 1	0,440	54,850	0,05485	51,417
	Replikasi 2	0,413	50,820	0,05082	
	Replikasi 3	0,398	48,582	0,048582	

- x (μg/ml)
  y = ax + b
- x (mg/mL)

$$\text{x (mg/mL)} = \frac{\text{x (μg/ml)}}{1.000}$$

1. Ekstrak Etanol 96%

Replikasi 1
y = 0,0046x + 0,1953
0,549 = 0,0046x + 0,1953
0,549 – 0,1953 = 0,0046x
0,3537 = 0,0046x

$$x = \frac{0,3537}{0,0046}$$

x = 76,891

Replikasi 2
y = 0,0046x + 0,1953
0,557 = 0,0046x + 0,1953
0,557 – 0,1953 = 0,0046x
0,3617 = 0,0046x

$$x = \frac{0,3617}{0,0046}$$

x = 78,630

Replikasi 3
y = 0,0046x + 0,1953
0,565 = 0,0046x + 0,1953
0,565 – 0,1953 = 0,0046x
0,3697 = 0,0046x

$$x = \frac{0,3697}{0,0046}$$

x = 80,369

2. Esktrak Metanol 96%

Replikasi 1
y = 0,0059x + 0,1906
0,552 = 0,0059x + 0,1906
0,552 – 0,1906 = 0,0059x
0,3614 = 0,0059x

$$x = \frac{0,3614}{0,0059}$$

x = 61,254

Replikasi 2
y = 0,0059x + 0,1906
0,493 = 0,0059x + 0,1906
0,493 – 0,1906 = 0,0059x
0,3024 = 0,0059x

$$x = \frac{0,3024}{0,0059}$$

x = 51,254

Replikasi 3
y = 0,0059x + 0,1906
0,482 = 0,0059x + 0,1906
0,482 – 0,1906 = 0,0059x
0,2914 = 0,0059x

$$x = \frac{0,2914}{0,0059}$$

x = 49,389

3. Ekstrak Aseton

Replikasi 1
y = 0,0054x + 0,2093
0,302 = 0,0054x + 0,2093
0,302 – 0,2093 = 0,0054x
0,0927 = 0,0054x

Replikasi 2
y = 0,0054x + 0,2093
0,304 = 0,0054x + 0,2093
0,304 – 0,2093 = 0,0054x
0,0947 = 0,0054x

Replikasi 3
y = 0,0054x + 0,2093
0,305 = 0,0054x + 0,2093
0,305 – 0,2093 =0,0054x
0,0957 = 0,0054x

$x = \frac{0{,}0927}{0{,}0054}$
x = 17,166

$x = \frac{0{,}0947}{0{,}0054}$
x =17,537

$x = \frac{0{,}0957}{0{,}0054}$
x =17,722

4. Ekstrak Etil Asetat

Replikasi 1
y = 0,0067x + 0,0725
0,440 = 0,0067x + 0,0725
0,440 – 0,0725 =0,0067x
0,3675= 0,0067x
$x = \frac{0{,}3675}{0{,}0067}$
x = 54,850

Replikasi 2
y = 0,0067x + 0,0725
0,413 = 0,0067x + 0,0725
0,413 – 0,0725 =0,0067x
0,3405 = 0,0067x
$x = \frac{0{,}3405}{0{,}0067}$
x = 50,820

Replikasi 3
y = 0,0067x + 0,0725
0,398 = 0,00x + 0,
0,398 – 0,0725 = 0,0067x
0,3255 = 0,0067x
$x = \frac{0{,}3255}{0{,}0067}$
x = 48,582

Lampiran 14. Kadar Flavonoid Total Daun Ubi Jalar Ungu (*Ipomea batatas*)

Ekstrak	**Berat sampel (g)**	**Absorbansi**	**Absorbansi rata-rata**	**Kandungan flavonoid total (mgEQ/g Eksrak)**
Ekstrak Etanol 96%	0,05	0,549	0,557	157,26 mgQE/g Ekstrak
	0,05	0,557		
	0,05	0,565		
Ekstrak Metanol 96%	0,05	0,552	0,509	107,931 mgQE/g Ekstrak
	0,05	0,493		
	0,05	0,482		
Esktrak Aseton	0,05	0,302	0,303	34,983 mgQE/g Ekstrak
	0,05	0,304		
	0,05	0,305		
Esktrak Etil Asetat	0,05	0,440	0,417	102,834 MgQE/g Ekstrak
	0,05	0,413		
	0,05	0,398		

Perhitungan Kadar Flavonoid Total Esktrak Daun Ubi Jalar Ungu (*Ipomea batatas*)

$$F = \frac{c.v.fp}{g}$$

1. Ekstrak Etanol 96%

Replikasi 1
$\frac{0{,}076891\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$
= 153,782 mgQE/g Ekstrak

Replikasi 2
$\frac{0{,}078630\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$
= 157,26 mgQE/g Ekstrak

Replikasi 3
$\frac{0{,}080369\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$
= 160,738 mgQE/g Ekstrak

Rata – rata kandungan flavonoid total adalah 157,26 mgQE/g Ekstrak.

2. Ekstrak Metanol 96%

Replikasi 1

$$\frac{0{,}061254\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 122,508 mgQE/g Ekstrak

Replikasi 2

$$\frac{0{,}051254\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 102,508 mgQE/g Ekstrak

Replikasi 3

$$\frac{0{,}049389\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 98,778 mgQE/g Ekstrak

Rata – rata kandungan flavonoid total adalah 107,931 mgQE/g Ekstrak.

3. Ekstrak Aseton

Replikasi 1

$$\frac{0{,}017166\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 34,332 mgQE/g Ekstrak

Replikasi 2

$$\frac{0{,}017537\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 35,074 mgQE/g Ekstrak

Replikasi 3

$$\frac{0{,}017722\,\frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 35,544 mgQE/g Ekstrak

Rata – rata kandungan flavonoid total adalah 34,983 mgQE/g Ekstrak.

4. Ekstrak Etil Asetat

Replikasi 1

$$\frac{0{,}05485\ \frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 109,7 mgQE/g Ekstrak

Replikasi 2

$$\frac{0{,}05082\ \frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 101,64 mgQE/g Ekstrak

Replikasi 3

$$\frac{0{,}048582\ \frac{mg}{ml} \text{ x } 10\text{ml x } 10}{0{,}05\ g}$$

= 97,164 mgQE/g Ekstrak

Rata – rata kandungan flavonoid total adalah 102,834 mgQE/g Ekstrak.

Lampiran 15. Diameter Zona Hambat Antibakteri *Stapylacocus Aureus*

Ekstrak	Kelompok Perlakuan	Replikasi			Rata-rata (mm)	Respon Hambattan
		I (mm)	II (mm)	III (mm)		
Ekstrak etanol 96%	Ekstrak16%	8.4	8.6	9.0	8.6	Sedang
	Ekstrak32%	10.3	10.5	11.6	10.8	Sedang
	Ekstrak64%	14.0	14.5	15.0	14.5	Kuat
	Kontrol (+)	32.1	32.5	32.8	32.4	Sangat kuat
	Kontrol (-)	0	0	0	0	-
Ekstrak metanol 96%	Ekstrak16%	12.2	13.2	13.6	13.0	Kuat
	Ekstrak32%	14.0	14.8	15.6	14.8	Kuat
	Ekstrak64%	19.8	20.5	21.4	20.5	Kuat
	Kontrol (+)	23.6	24.1	24.6	24.1	Sangat Kuat
	Kontrol (-)	0	0	0	0	-
Ekstrak aseton	Ekstrak16%	10.3	12.4	13.6	12.1	Kuat
	Ekstrak32%	12.1	14.3	16.6	14.3	Kuat
	Ekstrak64%	9.0	13.3	22.8	18.3	Kuat
	Kontrol (+)	22.1	23.3	28.6	24.6	Sangat Kuat

	Kontrol (-)	0	0	0	0	-
Ekstrak etil asetat	Ekstrak16%	3.4	3.5	3.6	3.5	Lemah
	Ekstrak32%	4.1	4.3	4.6	4.3	Lemah
	Ekstrak64%	6.0	6.3	6.8	6.3	Lemah
	Kontrol (+)	28.0	28.4	28.6	28.3	Sangat kuat
	Kontrol (-)	0	0	0	0	-

Lampiran 16. Perhitungan Zona Hambat Bakteri

Ekstrak	%	Replikasi I	Replikasi II	Replikasi III
Ekstrak etanol 96%	16%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(10.1-6.0)+(10.3-6.0)}{2}$ = 8.4 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(10.0-6.0)+(10.6-6.0)}{2}$ = 8.6 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(11.0-6.0)+(10.0-6.0)}{2}$ = 9.0 mm
	32%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(11.1-6.0)+(11.2-6.0)}{2}$ = 10.3 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(11.5-6.0)+(11.0-6.0)}{2}$ = 10.5 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(11.6-6.0)+(12.0-6.0)}{2}$ = 11.6 mm
	64%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.0-6.0)+(13.0-6.0)}{2}$ = 14.0 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.2-6.0)+(13.3-6.0)}{2}$ = 14.5 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.0-6.0)+(14.0-6.0)}{2}$ = 15.0 mm
	K (+)	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(22.1-6.0)+(22.0-6.0)}{2}$ = 32.1 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(22.4-6.0)+(22.1-6.0)}{2}$ = 32.5 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(22.7-6.0)+(22.1-6.0)}{2}$ = 32.8 mm
	K (-)	0	0	0
Ekstrak metanol 96%	16%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.0-6.0)+(12.2-6.0)}{2}$ = 12.2 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.0-6.0)+(13.2-6.0)}{2}$ = 13.2 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.6-6.0)+(13.0-6.0)}{2}$ = 13.6 mm

	32%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.0-6.0)+(13.0-6.0)}{2}$ = 14.0 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.6-6.0)+(13.2-6.0)}{2}$ = 14.8 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.6-6.0)+(14.0-6.0)}{2}$ = 15.6 mm
	64%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(15.8-6.0)+(16.0-6.0)}{2}$ = 19.8 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(16.5-6.0)+(16.0-6.0)}{2}$ = 20.5 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(17.0-6.0)+(16.4-6.0)}{2}$ = 21.4 mm
	K (+)	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(17.6-6.0)+(18.0-6.0)}{2}$ = 23.6 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(18.0-6.0)+(18.1-6.0)}{2}$ = 24.1 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(18.5-6.0)+(18.1-6.0)}{2}$ = 24.6 mm
	K (-)	0	0	0
Ekstrak aseton	16%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(11.1-6.0)+(11.2-6.0)}{2}$ = 10.3 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.1-6.0)+(12.3-6.0)}{2}$ = 12.4 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.6-6.0)+(13.0-6.0)}{2}$ = 13.6 mm
	32%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.0-6.0)+(12.1-6.0)}{2}$ = 12.1 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(13.1-6.0)+(13.3-6.0)}{2}$ = 14.3 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(14.2-6.0)+(14.4-6.0)}{2}$ = 16.6 mm
	64%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(15.0-6.0)+(16.0-6.0)}{2}$ = 19.0 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(12.3-6.0)+(13.0-6.0)}{2}$ = 13.3 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(17.4-6.0)+(17.4-6.0)}{2}$ = 22.8 mm
	K (+)	$\frac{(DV-DC)+(DH-DC)}{2}$	$\frac{(DV-DC)+(DH-DC)}{2}$	$\frac{(DV-DC)+(DH-DC)}{2}$

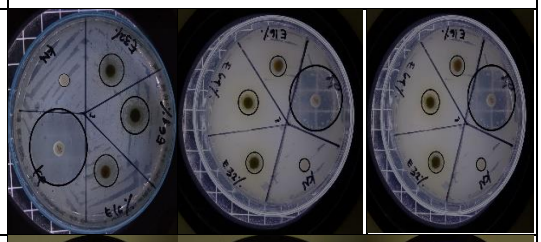
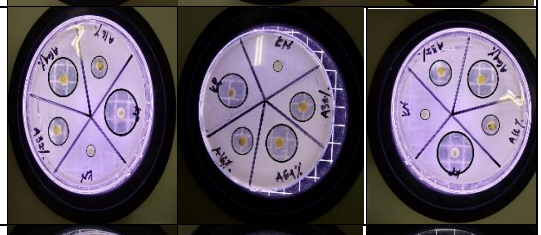
		$\frac{(17.1-6.0)+(17.0-6.0)}{2}$ = 22.1 mm	$\frac{(18.0-6.0)+(17.3-6.0)}{2}$ = 23.3 mm	$\frac{(20.7-6.0)+(20.1-6.0)}{2}$ = 28.6 mm
	K (-)	0	0	0
Esktrak Etil asetat	16%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(7.4-6.0)+(8.0-6.0)}{2}$ = 3.4 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(7.2-6.0)+(8.3-6.0)}{2}$ = 3.5 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(7.3-6.0)+(8.3-6.0)}{2}$ = 3.6 mm
	32%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(8.1-6.0)+(8.0-6.0)}{2}$ = 4.1 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(8.1-6.0)+(8.2-6.0)}{2}$ = 4.3 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(8.6-6.0)+(8.0-6.0)}{2}$ = 4.6 mm
	64%	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(9.0-6.0)+(9.0-6.0)}{2}$ = 6.0 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(9.1-6.0)+(9.2-6.0)}{2}$ = 6.3 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(9.5-6.0)+(9.3-6.0)}{2}$ = 6.8 mm
	K (+)	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(20.0-6.0)+(20.0-6.0)}{2}$ = 28.0 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(20.1-6.0)+(20.3-6.0)}{2}$ = 28.4 mm	$\frac{(DV-DC)+(DH-DC)}{2}$ $\frac{(20.2-6.0)+(20.4-6.0)}{2}$ = 28.6 mm
	K (-)	0	0	0

Lampiran 17. Hasil uji aktivitas antibakteri

A. Suspensi Dan Mc Farland



B. Hasil zona hambat bakteri

Bakteri/media/anti biotik	**Ekstrak**	**Gambar**
Bakteri *Stapylacocus Ureus* / Media Nutriet Agar / Kloramfenikol disk	Etanol 96%	
Bakteri *Stapylacocus Ureus* / Media Nutriet Agar / Kloramfenikol disk	Metanol 96%	
Bakteri *Stapylacocus Ureus* / Media Nutriet Agar / Kloramfenikol disk	Aseton	
Bakteri *Stapylacocus Ureus* / Media Nutriet Agar / Kloramfenikol disk	Etil Asetat	

Lampiran 18. *One way ANOVA test*

Kadar Flavonoid Total

Tujuan	: Mengetahui ada tidaknya perbedaan kadar flavonoid total yang signifikan antara ekstrak Etanol 96%, Metanol 96%, Aseton dan Etil Asetat.
Hipotesis	: Ho : tidak terdapat perbedaan kadar flavonoid total antara ekstrak Etanol96%, Metanol96%, Aseton dan Etil Asetat. Ha : terdapat perbedaan antara kadar flavonoid total antara ekstrak Etanol 96%, Metanol 96%, Aseton dan Etil Asetat.
α	: 0,05
Kriteria	: Ho ditolak jika nilai signifikan < α
Hasil	: nilai signifikan > α
Kesimpulan	: Ho ditolak dan Ha di terima, terdapat perbedaan kadar flavonoid total yang signifikan antara ekstrak Etanol 96%, Metanol 96%, Aseton dan Etil Asetat.

Uji Normalitas

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	konsentrasi perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
KFT	sampel ekstrak etanol	.370	3	.	.786	3	.081
	sampel ekstrak metanol	.331	3	.	.865	3	.280
	sampel ekstrak aseton	.226	3	.	.983	3	.754
	sampel ekstrak etil asetat	.355	3	.	.820	3	.163

Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
KFT	Based on Mean	8.941	3	8	.006
	Based on Median	.691	3	8	.583
	Based on Median and with adjusted df	.691	3	3.413	.610
	Based on trimmed mean	7.239	3	8	.011

Uji Anova

ANOVA

KFT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16191087506.917	3	5397029168.972	2.233	.162
Within Groups	19331890134.000	8	2416486266.750		
Total	35522977640.917	11			

Uji Robust (welch anova)

Robust Tests of Equality of Means

KFT

	Statistic[a]	df1	df2	Sig.
Welch	23.900	3	3.339	.010

Uji Post Hoc Test

Multiple Comparisons

Dependent Variable: KFT

Games-Howell

(I) kosentrasi_perlakuan	(J) kosentrasi_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
ekstrak etanol	ekstrak metanol	2150.66667	47791.99783	1.000	-312216.2850	316517.6183
	ekstrak aseton	75098.66667	47222.03207	.531	-252026.9882	402224.3215
	ekstrak etil asetat	73940.33333	56281.24031	.608	-175232.8569	323113.5236
ekstrak metanol	ekstrak etanol	-2150.66667	47791.99783	1.000	-316517.6183	312216.2850
	ekstrak aseton	72948.00000*	7375.88491	.025	22107.3028	123788.6972
	ekstrak etil asetat	71789.66667	31497.00583	.324	-122712.2930	266291.6263
ekstrak aseton	ekstrak etanol	-75098.66667	47222.03207	.531	-402224.3215	252026.9882
	ekstrak metanol	-72948.00000*	7375.88491	.025	-123788.6972	-22107.3028
	ekstrak etil asetat	-1158.33333	30625.26135	1.000	-213274.9552	210958.2885
ekstrak etil asetat	ekstrak etanol	-73940.33333	56281.24031	.608	-323113.5236	175232.8569
	ekstrak metanol	-71789.66667	31497.00583	.324	-266291.6263	122712.2930
	ekstrak aseton	1158.33333	30625.26135	1.000	-210958.2885	213274.9552

*. The mean difference is significant at the 0.05 level.

Uji Kolerasi

Correlations

		KFT	Antibakteri
KFT	Pearson Correlation	1	.194
	Sig. (2-tailed)		.545
	N	12	12
Antibakteri	Pearson Correlation	.194	1
	Sig. (2-tailed)	.545	
	N	12	12

Aktivitas Antibakteri *Stapyllacocus aureus.*

Tujuan : Mengetahui Ada Tidaknya Perbedaan Daya Hambat Yang Signifikan Antara Ekstrak Daun Ubi Jaalar Ungu *(Ipomea Batatas)* Dan Kontrol Positif.

Hipotesis : Ho : Tidak terdapat perbedaan daya hambat antara ekstak Daun Ubi Jaalar Ungu *(Ipomea Batatas)* Dan Kontrol Positif.

Ha : Terdapat perbedaan daya hambat antara ekstak Daun Ubi Jaalar Ungu *(Ipomea Batatas)* Dan Kontrol Positif.

α : 0,05

Kriteria : Ho Ditolak Jika Nilai Signifikan < α

Hasil : Nilai Signifikan > α

Kesimpulan : Ho Diterima Dan Ha Ditolak, Terdapat Perbedaan Daya Hambat Yang Dignifikan Antara Ekstrak Daun Ubi Jalar Ungu (Ipomea Batatas) Dan Kontrol Positif

Ekstrak Etanol 96% Daun Ubi Jalar Ungu *(Ipomea batatas).*

Uji Normalitas

Tests of Normality

	Konsentrasi Perlakuan	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Daya_hambat	kontrol (+)	.204	3	.	.993	3	.843
	kontrol (-)	.	3	.	.	3	.
	konsentrasi 16%	.253	3	.	.964	3	.637
	konsentrasi 32%	.333	3	.	.862	3	.274
	konsentrasi 64%	.175	3	.	1.000	3	1.000

Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya_hambat	Based on Mean	2.801	4	10	.085
	Based on Median	.775	4	10	.566
	Based on Median and with adjusted df	.775	4	4.055	.594
	Based on trimmed mean	2.611	4	10	.100

Uji ANOVA

ANOVA

Daya_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	172022.400	4	43005.600	2247.679	<.001
Within Groups	191.333	10	19.133		
Total	172213.733	14			

Uji Post Hoc Test

Multiple Comparisons

Dependent Variable: Daya_hambat
Tukey HSD

(I) konsentrasi_perlakuan	(J) konsentrasi_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
kontrol (+)	kontrol (-)	324.66667*	3.57149	<.001	312.9126	336.4207
	konsentrasi 16%	238.00000*	3.57149	<.001	226.2459	249.7541
	konsentrasi 32%	216.66667*	3.57149	<.001	204.9126	228.4207
	konsentrasi 64%	179.66667*	3.57149	<.001	167.9126	191.4207
kontrol (-)	kontrol (+)	-324.66667*	3.57149	<.001	-336.4207	-312.9126
	konsentrasi 16%	-86.66667*	3.57149	<.001	-98.4207	-74.9126
	konsentrasi 32%	-108.00000*	3.57149	<.001	-119.7541	-96.2459
	konsentrasi 64%	-145.00000*	3.57149	<.001	-156.7541	-133.2459
konsentrasi 16%	kontrol (+)	-238.00000*	3.57149	<.001	-249.7541	-226.2459
	kontrol (-)	86.66667*	3.57149	<.001	74.9126	98.4207
	konsentrasi 32%	-21.33333*	3.57149	.001	-33.0874	-9.5793
	konsentrasi 64%	-58.33333*	3.57149	<.001	-70.0874	-46.5793
konsentrasi 32%	kontrol (+)	-216.66667*	3.57149	<.001	-228.4207	-204.9126
	kontrol (-)	108.00000*	3.57149	<.001	96.2459	119.7541
	konsentrasi 16%	21.33333*	3.57149	.001	9.5793	33.0874
	konsentrasi 64%	-37.00000*	3.57149	<.001	-48.7541	-25.2459
konsentrasi 64%	kontrol (+)	-179.66667*	3.57149	<.001	-191.4207	-167.9126
	kontrol (-)	145.00000*	3.57149	<.001	133.2459	156.7541
	konsentrasi 16%	58.33333*	3.57149	<.001	46.5793	70.0874
	konsentrasi 32%	37.00000*	3.57149	<.001	25.2459	48.7541

*. The mean difference is significant at the 0.05 level.

Ekstrak Metanol 96% Daun Ubi Jalar Ungu *(Ipomea batatas).*

Uji Normalitas

Tests of Normality

	konsentrasi perlakuan	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Daya_hambat	kontrol (+)	.175	3	.	1.000	3	1.000
	kontrol (-)	.	3	.	.	3	.
	konsentrasi 16%	.276	3	.	.942	3	.537
	konsentrasi 32%	.175	3	.	1.000	3	1.000
	konsentrasi 64%	.200	3	.	.995	3	.862

Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya_hambat	Based on Mean	1.471	4	10	.282
	Based on Median	.974	4	10	.463
	Based on Median and with adjusted df	.974	4	7.183	.477
	Based on trimmed mean	1.441	4	10	.290

Uji ANOVA

ANOVA

Daya_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1024.663	4	256.166	623.780	<.001
Within Groups	4.107	10	.411		
Total	1028.769	14			

Uji Post Hoc Test

Multiple Comparisons

Dependent Variable: zona_hambat
Tukey HSD

(I) kosentrasi_perlakuan	(J) kosentrasi_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
kosentrasi (+)	kosentrasi (-)	241.00000*	5.23238	<.001	223.7798	258.2202
	kosentrasi 16%	111.00000*	5.23238	<.001	93.7798	128.2202
	kosentrasi 32%	93.00000*	5.23238	<.001	75.7798	110.2202
	kosentrasi 64%	35.33333*	5.23238	<.001	18.1131	52.5535
kosentrasi (-)	kosentrasi (+)	-241.00000*	5.23238	<.001	-258.2202	-223.7798
	kosentrasi 16%	-130.00000*	5.23238	<.001	-147.2202	-112.7798
	kosentrasi 32%	-148.00000*	5.23238	<.001	-165.2202	-130.7798
	kosentrasi 64%	-205.66667*	5.23238	<.001	-222.8869	-188.4465
kosentrasi 16%	kosentrasi (+)	-111.00000*	5.23238	<.001	-128.2202	-93.7798
	kosentrasi (-)	130.00000*	5.23238	<.001	112.7798	147.2202
	kosentrasi 32%	-18.00000*	5.23238	.040	-35.2202	-.7798
	kosentrasi 64%	-75.66667*	5.23238	<.001	-92.8869	-58.4465
kosentrasi 32%	kosentrasi (+)	-93.00000*	5.23238	<.001	-110.2202	-75.7798
	kosentrasi (-)	148.00000*	5.23238	<.001	130.7798	165.2202
	kosentrasi 16%	18.00000*	5.23238	.040	.7798	35.2202
	kosentrasi 64%	-57.66667*	5.23238	<.001	-74.8869	-40.4465
kosentrasi 64%	kosentrasi (+)	-35.33333*	5.23238	<.001	-52.5535	-18.1131
	kosentrasi (-)	205.66667*	5.23238	<.001	188.4465	222.8869
	kosentrasi 16%	75.66667*	5.23238	<.001	58.4465	92.8869
	kosentrasi 32%	57.66667*	5.23238	<.001	40.4465	74.8869

*. The mean difference is significant at the 0.05 level.

Ekstrak Aseton Daun Ubi Jalar Ungu *(Ipomea batatas).*

Uji Normalitas

Tests of Normality

	konsentrasi perlakuan	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
Daya_hambat	kontrol (+)	.320	3	.	.883	3	.333
	kontrol (-)	.	3	.	.	3	.
	konsentrasi 16%	.238	3	.	.976	3	.702
	konsentrasi 32%	.176	3	.	1.000	3	.975
	konsentrasi 64%	.219	3	.	.987	3	.780

Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya_hambat	Based on Mean	2.650	4	10	.096
	Based on Median	1.107	4	10	.405
	Based on Median and with adjusted df	1.107	4	5.330	.441
	Based on trimmed mean	2.529	4	10	.107

Uji ANOVA

ANOVA

Daya_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	997.529	4	249.382	29.215	<.001
Within Groups	85.360	10	8.536		
Total	1082.889	14			

Uji Post Hoc Test

Multiple Comparisons

Dependent Variable: Daya_hambat
Tukey HSD

(I) konsentrasi_perlakuan	(J) konsentrasi_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
kontrol (+)	kontrol (-)	246.66667*	23.85512	<.001	168.1575	325.1758
	konsentrasi 16%	125.66667*	23.85512	.003	47.1575	204.1758
	konsentrasi 32%	103.33333*	23.85512	.010	24.8242	181.8425
	konsentrasi 64%	63.00000	23.85512	.135	-15.5092	141.5092
kontrol (-)	kontrol (+)	-246.66667*	23.85512	<.001	-325.1758	-168.1575
	konsentrasi 16%	-121.00000*	23.85512	.003	-199.5092	-42.4908
	konsentrasi 32%	-143.33333*	23.85512	<.001	-221.8425	-64.8242
	konsentrasi 64%	-183.66667*	23.85512	<.001	-262.1758	-105.1575
konsentrasi 16%	kontrol (+)	-125.66667*	23.85512	.003	-204.1758	-47.1575
	kontrol (-)	121.00000*	23.85512	.003	42.4908	199.5092
	konsentrasi 32%	-22.33333	23.85512	.876	-100.8425	56.1758
	konsentrasi 64%	-62.66667	23.85512	.138	-141.1758	15.8425
konsentrasi 32%	kontrol (+)	-103.33333*	23.85512	.010	-181.8425	-24.8242
	kontrol (-)	143.33333*	23.85512	<.001	64.8242	221.8425
	konsentrasi 16%	22.33333	23.85512	.876	-56.1758	100.8425
	konsentrasi 64%	-40.33333	23.85512	.480	-118.8425	38.1758
konsentrasi 64%	kontrol (+)	-63.00000	23.85512	.135	-141.5092	15.5092
	kontrol (-)	183.66667*	23.85512	<.001	105.1575	262.1758
	konsentrasi 16%	62.66667	23.85512	.138	-15.8425	141.1758
	konsentrasi 32%	40.33333	23.85512	.480	-38.1758	118.8425

*. The mean difference is significant at the 0.05 level.

Ekstrak Etil Asetat Daun Ubi Jalar Ungu *(Ipomea batatas)*.

Uji Normalitas

Tests of Normality

	konsentrasi perlakuan	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
Daya_hambat	kontrol (+)	.253	3	.	.964	3	.637
	kontrol (-)	.	3	.	.	3	.
	konsentrasi 16%	.175	3	.	1.000	3	1.000
	konsentrasi 32%	.219	3	.	.987	3	.780
	konsentrasi 64%	.232	3	.	.980	3	.726

Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya_hambat	Based on Mean	2.676	4	10	.094
	Based on Median	1.308	4	10	.332
	Based on Median and with adjusted df	1.308	4	5.481	.373
	Based on trimmed mean	2.574	4	10	.103

Uji ANOVA

ANOVA

Daya_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1329.129	4	332.282	5034.581	<.001
Within Groups	.660	10	.066		
Total	1329.789	14			

Uji Post Hoc Test

Multiple Comparisons

Dependent Variable: zona_hambat
Tukey HSD

(I) kosentrasi_perlakuan	(J) kosentrasi_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
kosentrasi (+)	kosentrasi (-)	283.33333*	2.09762	<.001	276.4299	290.2368
	kosentrasi 16%	208.33333*	2.09762	<.001	201.4299	215.2368
	kosentrasi 32%	200.00000*	2.09762	<.001	193.0966	206.9034
	kosentrasi 64%	189.66667*	2.09762	<.001	182.7632	196.5701
kosentrasi (-)	kosentrasi (+)	-283.33333*	2.09762	<.001	-290.2368	-276.4299
	kosentrasi 16%	-75.00000*	2.09762	<.001	-81.9034	-68.0966
	kosentrasi 32%	-83.33333*	2.09762	<.001	-90.2368	-76.4299
	kosentrasi 64%	-93.66667*	2.09762	<.001	-100.5701	-86.7632
kosentrasi 16%	kosentrasi (+)	-208.33333*	2.09762	<.001	-215.2368	-201.4299
	kosentrasi (-)	75.00000*	2.09762	<.001	68.0966	81.9034
	kosentrasi 32%	-8.33333*	2.09762	.017	-15.2368	-1.4299
	kosentrasi 64%	-18.66667*	2.09762	<.001	-25.5701	-11.7632
kosentrasi 32%	kosentrasi (+)	-200.00000*	2.09762	<.001	-206.9034	-193.0966
	kosentrasi (-)	83.33333*	2.09762	<.001	76.4299	90.2368
	kosentrasi 16%	8.33333*	2.09762	.017	1.4299	15.2368
	kosentrasi 64%	-10.33333*	2.09762	.004	-17.2368	-3.4299
kosentrasi 64%	kosentrasi (+)	-189.66667*	2.09762	<.001	-196.5701	-182.7632
	kosentrasi (-)	93.66667*	2.09762	<.001	86.7632	100.5701
	kosentrasi 16%	18.66667*	2.09762	<.001	11.7632	25.5701
	kosentrasi 32%	10.33333*	2.09762	.004	3.4299	17.2368

*. The mean difference is significant at the 0.05 level.

Lampiran 19. Derteminasi Daun Ubi Jalar Ungu *(Ipomea batatas)*

HERBARIUM UNIVERSITAS ANDALAS (ANDA)
Departemen Biologi FMIPA Universitas Andalas Kampus Limau Manih Padang
Sumbar Indonesia 25163 Telp. +62-751-777427 e-mail: herbariumanda@yahoo.com

Nomor : 048/K-ID/ANDA/I/2026
Lampiran : -
Perihal : Hasil Identifikasi

Kepada yth,
apt. Diani Mega Sari, M.Si
Di
Tempat

Dengan hormat,
Sehubungan dengan surat permohonan determinasi sampel dari Institut Kesehatan Mitra Bunda No. 03/K/S1-FARM/IKMB/I/2026 tanggal 13 Januari 2026 di Herbarium Universitas Andalas Departemen Biologi FMIPA Universitas Andalas, kami telah membantu mengidentifikasi tumbuhan yang dibawa, dari:

Nama : apt. Diani Mega Sari, M.Si
Instansi : Institut Kesehatan Mitra Bunda

Berikut ini diberikan hasil identifikasi yang dikeluarkan dari Herbarium Universitas Andalas.

No	Family	Spesies	Nomor Koleksi
1.	Lamiaceae	*Premna trichostoma* Miq.	IKMB. 22.29 Tanaman Cincau Hijau
2.	Fabaceae	*Leucaena leucocephala* (Lam.) de Wit	IKMB.22.57 Daun Petai Cina
3.	Amaranthaceae	*Beta vulgaris* L.	IKMB.22.44 Umbi Bit
4.	Convolvulaceae	*Ipomoea batatas* (L.) Lam.	IKMB. 22.10 Tanaman Ubi Jalar Ungu
5.	Piperaceae	*Piper betle* L.	IKMB. 22.2 Tanaman Sirih
6.	Muntingiaceae	*Muntingia calabura* L.	IKMB.22.1 Tanaman Kersen

Demikian surat ini dibuat untuk dapat digunakan seperlunya.

Padang, 30 Januari 2026
Kepala,

Dr. Nurainas
NIP. 196908141995122001

Lampiran 20. Sertifikat COA Etanol 96%

CERTIFICATE OF ANALYSIS

Product Name : Solvent teknis 96%

Batch No : 240930.001

Date of Manufacture : 30 Sep 2024

Date of Expiration : 30 Sep 2026

NO	PARAMETER	DIMENTIION	TEST METHOD	RESULT
1	Ethanol Content	% v/v	Alcoholmeter 20°C	96.8
2	Acidity As Acetid Acid	ppm	SNI	4.2
3	Fusel Oil	ppm	AOAC	28.84
4	$KMnO_4$	minutes	BP	3.5
5	Methanol	Ppm	Gas Chrom	0.06
6	Residu After Evaporation	Ppm	SCI TABLE	0.784

CV. PRIMA JAYA INDONUSA

Lampiran 21. Sertifikat COA Metanol 96%

AIK MOH
A BRENNTAG GROUP COMPANY

PT. AIK MOH CHEMICALS INDONESIA
Komplex Bintang Makmur Industri Block FG No. 8-9
Batam Centre, Indonesia
Tel: (+62) 778 7431208 / 7431209
Fax: (+62) 778 7431211
Email: contact_us@aikmoh.com.sg

Certificate Of Analysis

CAS :67-56-1
Batch No. :2511T033
Date Of Manufacture :14-Nov-2025
Date Of Expiry :14-May-2027
Ref No. :AMCOA/092242/1125

Methanol

Properties	Specification	Result
ACIDITY (AS ACETIC ACID)	Max. 0.003 WT%	0.002 WT%
APPEARANCE	Clear Free From Suspended Matter	Clear Free From Suspended Matter
COLOUR, PT-CO SCALE	Max. 5	5
DISTILLATION RANGE @ 760MMHG - DP	63.5 - 65.7 °C	64.8 °C
DISTILLATION RANGE @ 760MMHG - IBP	63.5 - 65.7 °C	64.5 °C
NON-VOLATILE MATTER	Max. 10 ppm	4 ppm
PERMANGANATE TIME	Min. 50 mins	>50 mins
PURITY	Min. 99.85 WT%	99.99 WT%
SPECIFIC GRAVITY @ 20 °C	0.7910 - 0.7930	0.7925
WATER	Max. 0.10 WT%	0.004 WT%

REMARK: Distillation range IBP & DP will be within 1.0degC
range to include 64.6 +/- 0.1
Whenever Purity is given, Distillation Range will not be given & vice versa



Note: This is a computer generated document. No signature is required

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COA Created By: Julia
COA Created Date: 17-Nov-2025

File Generated By: Martines Emili
File Generated On: 05-May-2026

Lampiran 22. Sertifikat COA Natrium Agar (Na)

HIMEDIA®

Certified : ISO 9001:2015, ISO 13485:2016 , WHO GMP

HiMedia Laboratories Private Limited
C-40, Road No.21Y, MIDC, Wagle Industrial Area,
Thane(W) - 400604 , Website : www.himedialabs.com,
Email : info@himedialabs.com

Certificate of Analysis, Quality and Conformity

Material Code : GM001	**Material Name :** Nutrient Agar, Granulated	**Lot No** : 0000589909
Report No.: 40001360401	**Date of Release & Report :** 2023-05-27	**Expiry Date :** 2028-04

. For Bacteria : Soyabean Casein Digest Agar / Columbia Blood Agar base enriched with 5% v/v Sheep/Horse blood.
. For Yeast & Mold : Sabouraud Dextrose Agar.

. All ISO 11133 : 2014/Amd.1:2018(E) control strains are included in the Quality parameter
. HiMedia Laboratories Pvt Ltd is Certified for ISO 9001:2015, ISO 13485:2016 , WHO GMP

. Information for BSE/TSE Risk: The material was subjected to pH <= 7.0 and/or a temperature in excess of 75°C for no less than 2 hours during the manufacturing process. The bovine raw material for this product was collected entirely from Indian Origin animals in a licensed based establishment. The animals are inspected under a Govt. approved veterinarian's supervision and were apparently free from infectious and contagious diseases. BSE (Bovine Spongiform Encephalopathy)/ TSE (Transmissible Spongiform Encephalopathy) and dioxine are not known to exist in India. This material does not contain, nor is derived from the specific risks material as defined in The Maharashtra Animal Preservation Act Govt. of Maharashtra, India.

STATUS OF THE MATERIAL : APPROVED

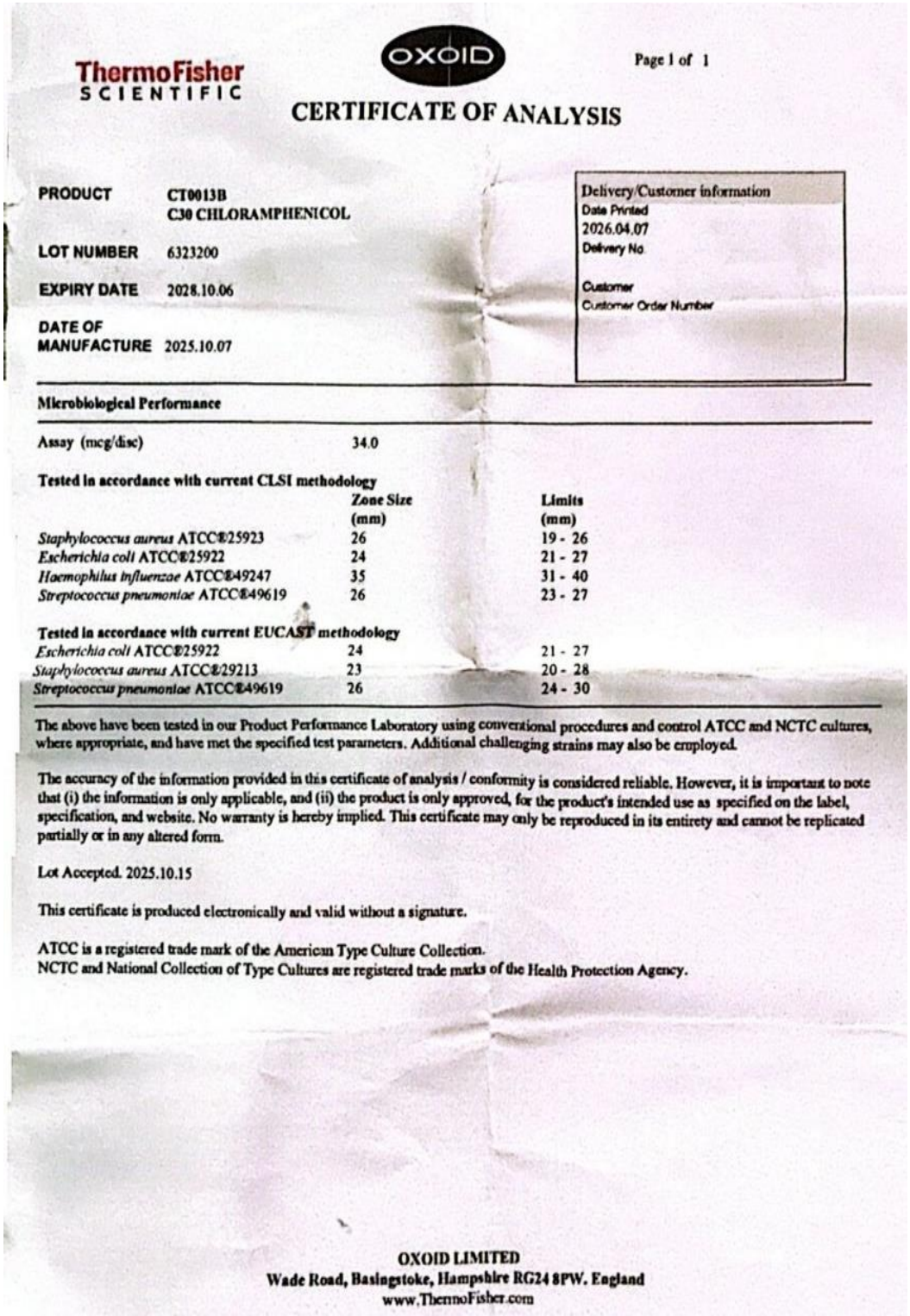
This is to certify that this lot passes and it confirms to the above mentioned tests and specifications . The information given here is believed to be correct and accurate, however, both the information and products are offered without warranty for any particulars use, other than that specified in the current HiMedia manual or product sheets. The results reported were obtained at the time of release.

This document has been produced electronically and is valid

Prachi Ratnakar	Ujwala M. Kokate	Dr. Santosh Kaul
Microbiologist/Sr.Executive Microbiologist	Asst./Dy/QC Manager	Dy/QA Manager

2023-05-27

Lampiran 23. Sertifikat COA Antibiotik Kloramfenikol



ThermoFisher SCIENTIFIC

OXOID

Page 1 of 1

CERTIFICATE OF ANALYSIS

PRODUCT	**CT0013B** **C30 CHLORAMPHENICOL**
LOT NUMBER	6323200
EXPIRY DATE	2028.10.06
DATE OF MANUFACTURE	2025.10.07

Delivery/Customer information
Date Printed
2026.04.07
Delivery No.

Customer
Customer Order Number

Microbiological Performance

Assay (mcg/disc) 34.0

Tested in accordance with current CLSI methodology

	Zone Size (mm)	Limits (mm)
Staphylococcus aureus ATCC®25923	26	19 - 26
Escherichia coli ATCC®25922	24	21 - 27
Haemophilus influenzae ATCC®49247	35	31 - 40
Streptococcus pneumoniae ATCC®49619	26	23 - 27

Tested in accordance with current EUCAST methodology

Escherichia coli ATCC®25922	24	21 - 27
Staphylococcus aureus ATCC®29213	23	20 - 28
Streptococcus pneumoniae ATCC®49619	26	24 - 30

The above have been tested in our Product Performance Laboratory using conventional procedures and control ATCC and NCTC cultures, where appropriate, and have met the specified test parameters. Additional challenging strains may also be employed.

The accuracy of the information provided in this certificate of analysis / conformity is considered reliable. However, it is important to note that (i) the information is only applicable, and (ii) the product is only approved, for the product's intended use as specified on the label, specification, and website. No warranty is hereby implied. This certificate may only be reproduced in its entirety and cannot be replicated partially or in any altered form.

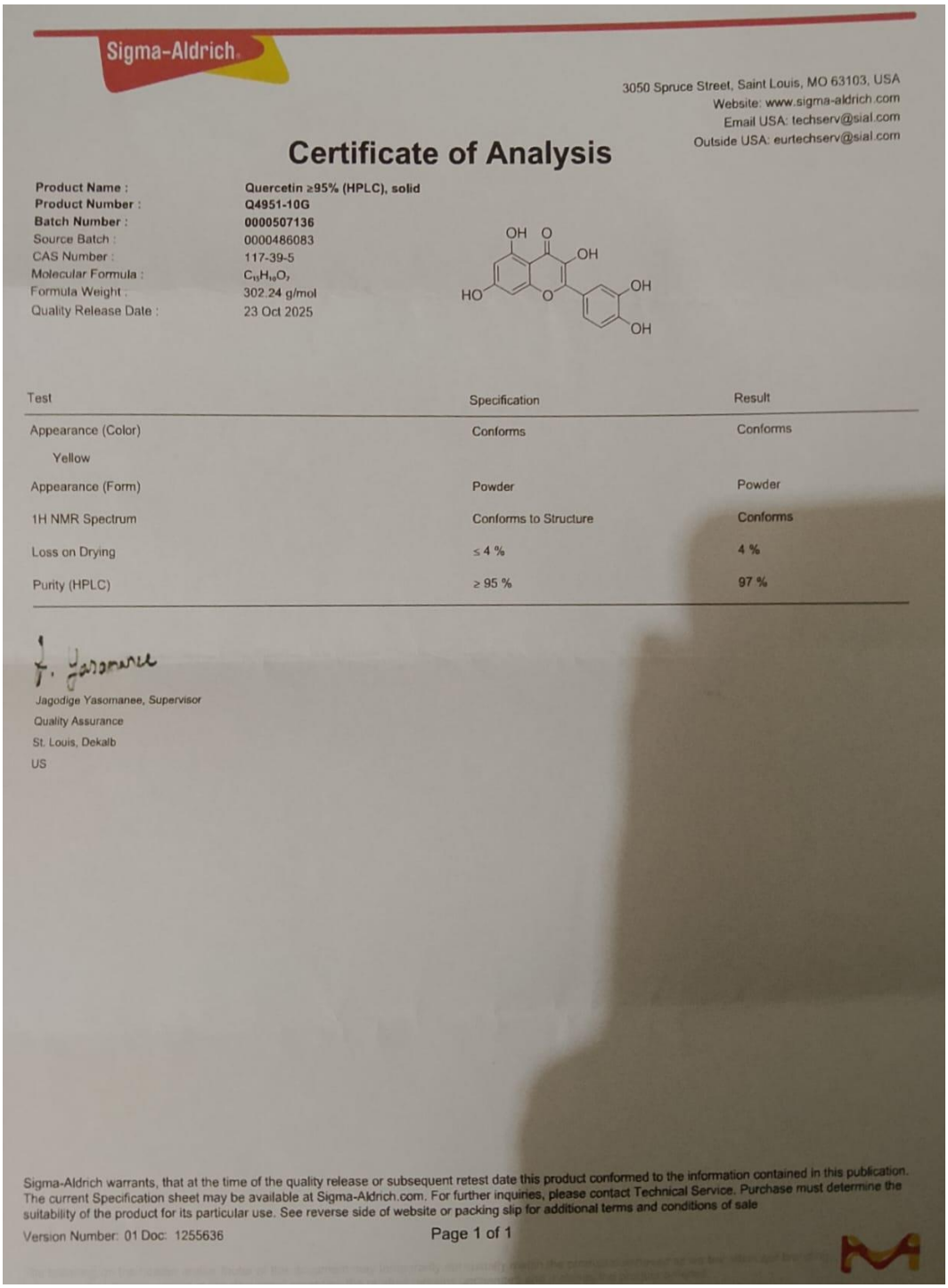
Lot Accepted. 2025.10.15

This certificate is produced electronically and valid without a signature.

ATCC is a registered trade mark of the American Type Culture Collection.
NCTC and National Collection of Type Cultures are registered trade marks of the Health Protection Agency.

OXOID LIMITED
Wade Road, Basingstoke, Hampshire RG24 8PW. England
www.ThermoFisher.com

Lampiran 24. Sertifikat COA Quarsetine



Sigma-Aldrich

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigma-aldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

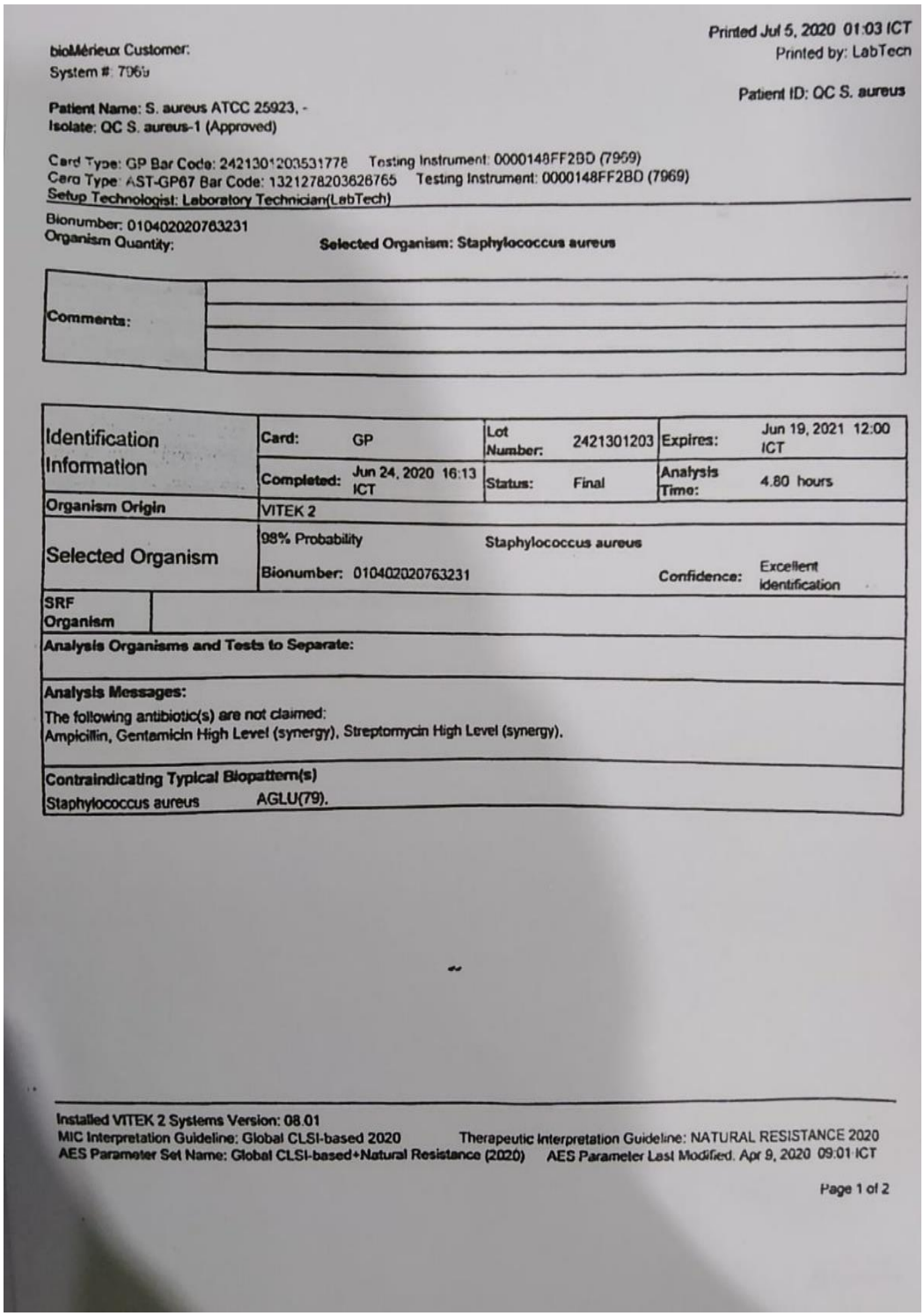
Product Name :	**Quercetin ≥95% (HPLC), solid**
Product Number :	**Q4951-10G**
Batch Number :	**0000507136**
Source Batch :	0000486083
CAS Number :	117-39-5
Molecular Formula :	$C_{15}H_{10}O_7$
Formula Weight :	302.24 g/mol
Quality Release Date :	23 Oct 2025

Test	Specification	Result
Appearance (Color) Yellow	Conforms	Conforms
Appearance (Form)	Powder	Powder
1H NMR Spectrum	Conforms to Structure	Conforms
Loss on Drying	≤ 4 %	4 %
Purity (HPLC)	≥ 95 %	97 %

Jagodige Yasomanee, Supervisor
Quality Assurance
St. Louis, Dekalb
US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchase must determine the suitability of the product for its particular use. See reverse side of website or packing slip for additional terms and conditions of sale

Lampiran 25. Sertifikat COA Bakteri *Stapylacocus Aureus*



Printed Jul 5, 2020 01:03 ICT
Printed by: LabTech

bioMérieux Customer:
System #: 7959

Patient ID: QC S. aureus

Patient Name: S. aureus ATCC 25923, -
Isolate: QC S. aureus-1 (Approved)

Card Type: GP Bar Code: 2421301203531778 Testing Instrument: 0000148FF2BD (7959)
Card Type: AST-GP67 Bar Code: 1321278203626765 Testing Instrument: 0000148FF2BD (7969)
Setup Technologist: Laboratory Technician(LabTech)

Bionumber: 010402020763231
Organism Quantity: **Selected Organism: Staphylococcus aureus**

Comments:	

Identification Information	Card: GP		Lot Number: 2421301203	Expires:	Jun 19, 2021 12:00 ICT
	Completed: Jun 24, 2020 16:13 ICT		Status: Final	Analysis Time:	4.80 hours
Organism Origin	VITEK 2				
Selected Organism	98% Probability	Staphylococcus aureus			
	Bionumber: 010402020763231			Confidence:	Excellent identification
SRF Organism					

Analysis Organisms and Tests to Separate:

Analysis Messages:
The following antibiotic(s) are not claimed:
Ampicillin, Gentamicin High Level (synergy), Streptomycin High Level (synergy).

Contraindicating Typical Biopattern(s)
Staphylococcus aureus AGLU(79).

Installed VITEK 2 Systems Version: 08.01
MIC Interpretation Guideline: Global CLSI-based 2020 Therapeutic Interpretation Guideline: NATURAL RESISTANCE 2020
AES Parameter Set Name: Global CLSI-based+Natural Resistance (2020) AES Parameter Last Modified: Apr 9, 2020 09:01 ICT

Page 1 of 2

Lampiran 26. Surat Etik



YAYASAN HARAPAN BUNDA BATAM
INSTITUT KESEHATAN MITRA BUNDA
KOMITE ETIK PENELITIAN
Jl. Semya No 1 KOTA BATAM Telp Fax (0778) 429431, website : http://ikmb.ac.id
SURAT KEPUTUSAN MENTERI PENDIDIKAN DAN KEBUDAYAAN REPUBLIK INDONESIA No 284/M/2020

KOMITE ETIK PENELITIAN
INSTITUT KESEHATAN MITRA BUNDA
THE RESEARCH ETHICAL COMMITTEE INSTITUT KESEHATAN MITRA BUNDA

SURAT KETERANGAN
ETHICAL APPROVAL
No. 109/K/KEP/IKMB/VI/2026

Komite Etik Penelitian Institut Kesehatan Mitra Bunda, menyatakan dengan ini bahwa penelitian dengan judul :
The Research Ethical Committee of Institut Kesehatan Mitra Bunda stated hereby that the following proposal :

"Identifikasi dan Uji Aktvitas Antibakteri Senyawa Flavanoid pada Ektrak Daun Ubi Jalar Ungu (*Ipomea batatas*)"
"Indentification and Testing of The Antibacterial Activity of Flavonoid Compounds in Purple Sweet Potato (Ipomea Batatas) Leaf Extract"

Peneliti Utama : Defi Defriana
Principal Investigato

Lokasi Penelitian : Laboratorium Kimia Farmasi Institut Kesehatan Mitra Bunda
Research Location

Waktu Penelitian : Mei - Juli 2026
Time Schedule

Responden/Subjek Penelitian : 4 Ekstrak Daun Ubi Jalar Ungu
Respondent/ Research Subject

Telah melalui prosedur kaji etik dan dinyatakan layak untuk dilaksanakan
Has proceeded the ethichal assessment procedure and been approved fot implementation

Batam, 8 Juni 2026
Ketua / *Chairman*,

dr. Ibnu Rushd, M.K.M

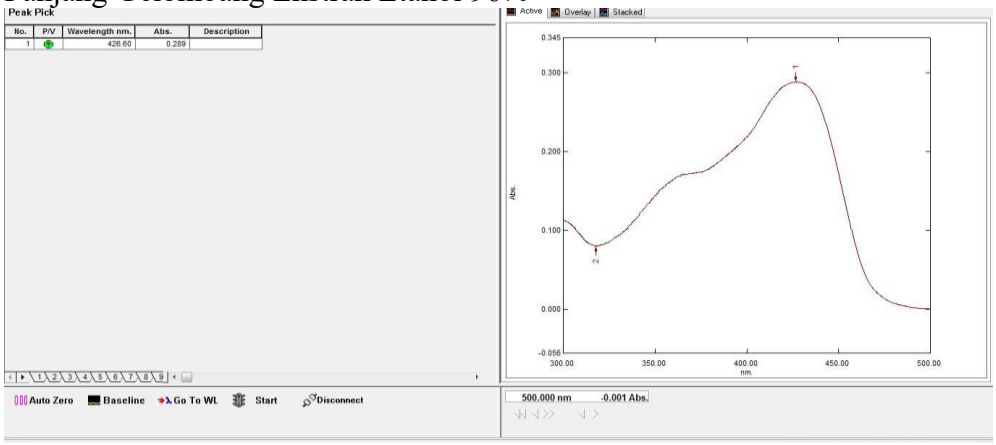
Lampiran 27. Time Tabel Kerja Penelitian

JADWAL KEGIATAN PENELTIAN
NOVEMBER 2025 – NOVEMBER 2026

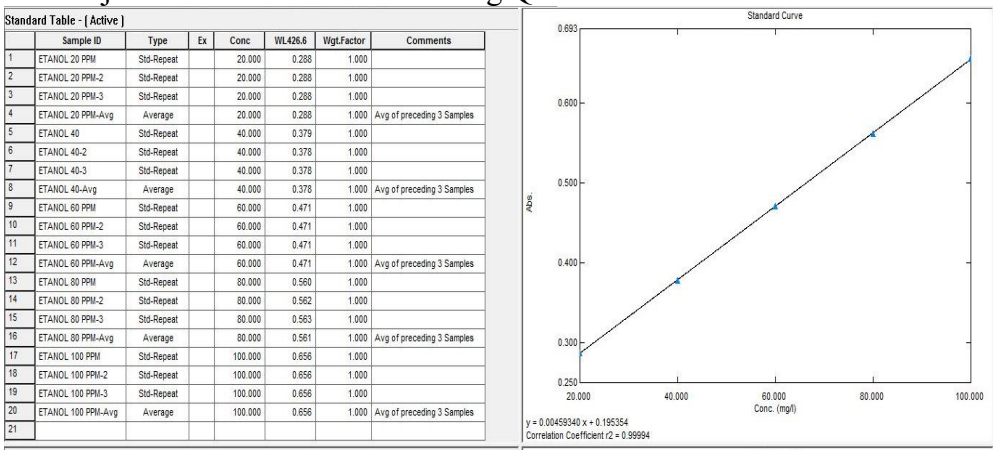
No	Kegiatan	November				Desember				Januari				Febuari				Maret				April				Mei				Juni				Juli				Agustus				September				Oktober				November			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.	Pengajuan Judul Ke LPPM																																																		
2.	Penyusunan Proposal																																																		
3.	Pengajuan Seminar Proposal																																																		
4.	Seminar Proposal Skripsi																																																		
5.	Revisi Proposal																																																		
6.	Pengajuan Kode Etik																																																		
7.	Pengajuan Penelitian																																																		
8.	Penelitian Skripsi																																																		
9.	Penyusunan Skripsi																																																		
10.	Seminar Hasil																																																		
11.	Kompre																																																		

Lampiran 28. Panjang Gelombang Dan Nilai Absorbansi Kadar Flavonoid Total

a. Panjang Gelombang Ekstrak Etanol 96%



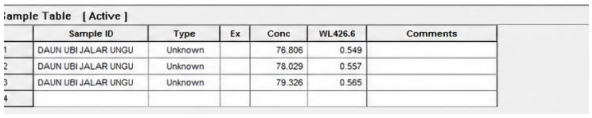
Hasil Uji Flavonoid Baku Pembanding Quarsetin



Standard Table - [Active]

	Sample ID	Type	Ex	Conc	WL426.6	Wgt.Factor	Comments
1	ETANOL 20 PPM	Std-Repeat		20.000	0.288	1.000	
2	ETANOL 20 PPM-2	Std-Repeat		20.000	0.288	1.000	
3	ETANOL 20 PPM-3	Std-Repeat		20.000	0.288	1.000	
4	ETANOL 20 PPM-Avg	Average		20.000	0.288	1.000	Avg of preceding 3 Samples
5	ETANOL 40	Std-Repeat		40.000	0.379	1.000	
6	ETANOL 40-2	Std-Repeat		40.000	0.378	1.000	
7	ETANOL 40-3	Std-Repeat		40.000	0.378	1.000	
8	ETANOL 40-Avg	Average		40.000	0.378	1.000	Avg of preceding 3 Samples
9	ETANOL 60 PPM	Std-Repeat		60.000	0.471	1.000	
10	ETANOL 60 PPM-2	Std-Repeat		60.000	0.471	1.000	
11	ETANOL 60 PPM-3	Std-Repeat		60.000	0.471	1.000	
12	ETANOL 60 PPM-Avg	Average		60.000	0.471	1.000	Avg of preceding 3 Samples
13	ETANOL 80 PPM	Std-Repeat		80.000	0.560	1.000	
14	ETANOL 80 PPM-2	Std-Repeat		80.000	0.562	1.000	
15	ETANOL 80 PPM-3	Std-Repeat		80.000	0.563	1.000	
16	ETANOL 80 PPM-Avg	Average		80.000	0.561	1.000	Avg of preceding 3 Samples
17	ETANOL 100 PPM	Std-Repeat		100.000	0.656	1.000	
18	ETANOL 100 PPM-2	Std-Repeat		100.000	0.656	1.000	
19	ETANOL 100 PPM-3	Std-Repeat		100.000	0.656	1.000	
20	ETANOL 100 PPM-Avg	Average		100.000	0.656	1.000	Avg of preceding 3 Samples
21							

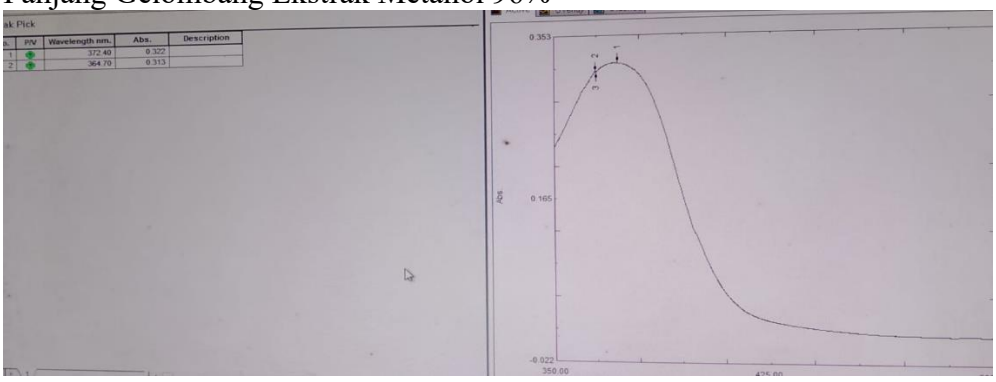
Penentuan Absorbansi Ekstrak Etanol 96%



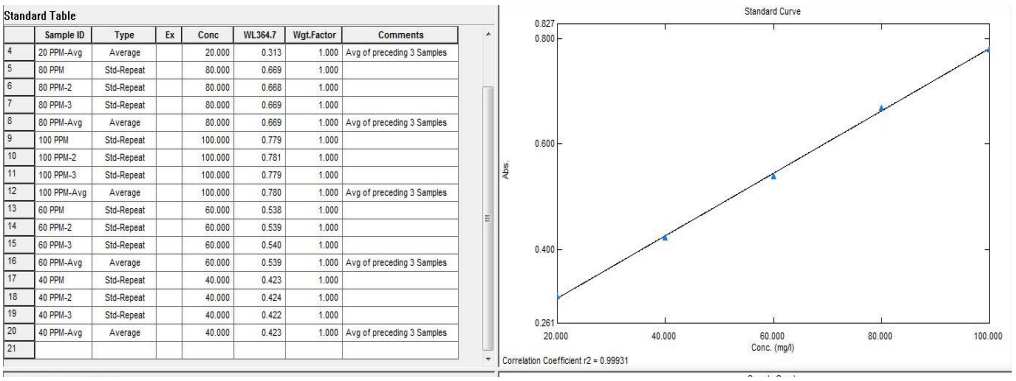
ample Table [Active]

	Sample ID	Type	Ex	Conc	WL426.6	Comments
1	DAUN UBI JALAR UNGU	Unknown		76.806	0.549	
2	DAUN UBI JALAR UNGU	Unknown		78.029	0.557	
3	DAUN UBI JALAR UNGU	Unknown		79.326	0.565	
4						

b. Panjang Gelombang Ekstrak Metanol 96%



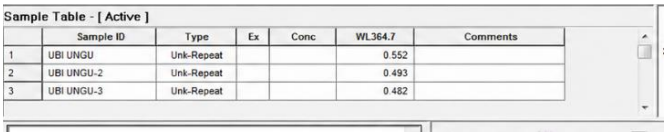
Hasil Uji Flavonoid Baku Pembanding Quarsetin



Standard Table

	Sample ID	Type	Ex	Conc	WL364.7	Wgt.Factor	Comments
4	20 PPM-Avg	Average		20.000	0.313	1.000	Avg of preceding 3 Samples
5	80 PPM	Std-Repeat		80.000	0.669	1.000	
6	80 PPM-2	Std-Repeat		80.000	0.668	1.000	
7	80 PPM-3	Std-Repeat		80.000	0.669	1.000	
8	80 PPM-Avg	Average		80.000	0.669	1.000	Avg of preceding 3 Samples
9	100 PPM	Std-Repeat		100.000	0.779	1.000	
10	100 PPM-2	Std-Repeat		100.000	0.781	1.000	
11	100 PPM-3	Std-Repeat		100.000	0.779	1.000	
12	100 PPM-Avg	Average		100.000	0.780	1.000	Avg of preceding 3 Samples
13	60 PPM	Std-Repeat		60.000	0.538	1.000	
14	60 PPM-2	Std-Repeat		60.000	0.539	1.000	
15	60 PPM-3	Std-Repeat		60.000	0.540	1.000	
16	60 PPM-Avg	Average		60.000	0.539	1.000	Avg of preceding 3 Samples
17	40 PPM	Std-Repeat		40.000	0.423	1.000	
18	40 PPM-2	Std-Repeat		40.000	0.424	1.000	
19	40 PPM-3	Std-Repeat		40.000	0.422	1.000	
20	40 PPM-Avg	Average		40.000	0.423	1.000	Avg of preceding 3 Samples
21							

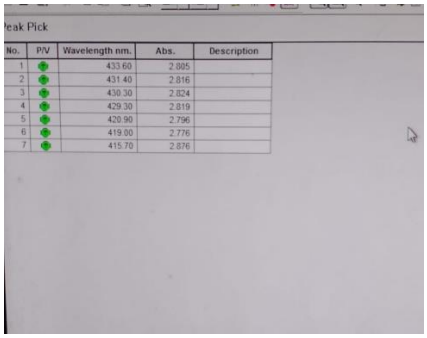
Penentuan Absorbansi Ekstrak Metanol 96%



Sample Table - [Active]

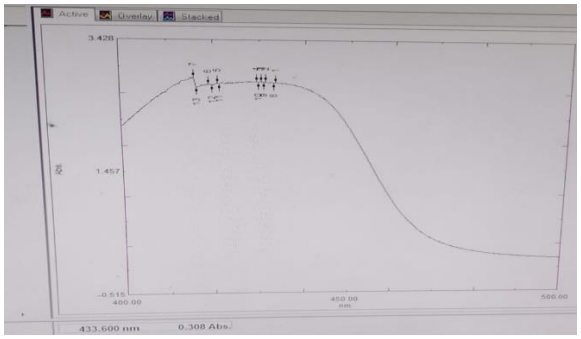
	Sample ID	Type	Ex	Conc	WL364.7	Comments
1	UBI UNGU	Unk-Repeat			0.552	
2	UBI UNGU-2	Unk-Repeat			0.493	
3	UBI UNGU-3	Unk-Repeat			0.482	

c. Panjang Gelombang Ekstrak Aseton

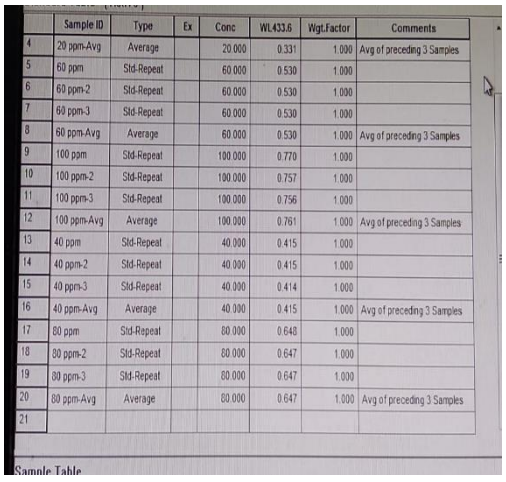


Peak Pick

No.	P/V	Wavelength nm.	Abs.	Description
1		433.60	2.895	
2		431.40	2.816	
3		430.30	2.824	
4		429.30	2.819	
5		420.90	2.796	
6		419.00	2.776	
7		415.70	2.876	

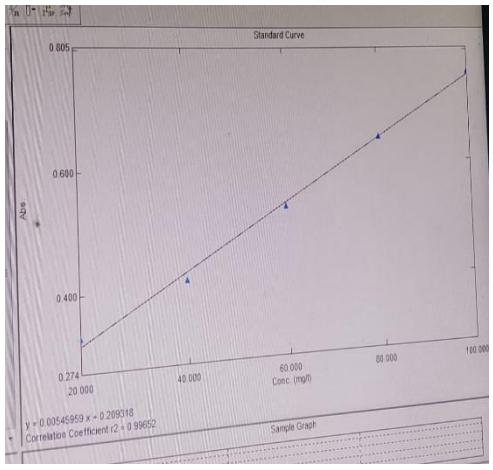


Hasil Uji Flavonoid Baku Pembanding Quarsetin



	Sample ID	Type	Ex	Conc	WL433.6	Wgt.Factor	Comments
4	20 ppm-Avg	Average		20.000	0.331	1.000	Avg of preceding 3 Samples
5	60 ppm	Std-Repeat		60.000	0.530	1.000	
6	60 ppm-2	Std-Repeat		60.000	0.530	1.000	
7	60 ppm-3	Std-Repeat		60.000	0.530	1.000	
8	60 ppm-Avg	Average		60.000	0.530	1.000	Avg of preceding 3 Samples
9	100 ppm	Std-Repeat		100.000	0.770	1.000	
10	100 ppm-2	Std-Repeat		100.000	0.757	1.000	
11	100 ppm-3	Std-Repeat		100.000	0.756	1.000	
12	100 ppm-Avg	Average		100.000	0.761	1.000	Avg of preceding 3 Samples
13	40 ppm	Std-Repeat		40.000	0.415	1.000	
14	40 ppm-2	Std-Repeat		40.000	0.415	1.000	
15	40 ppm-3	Std-Repeat		40.000	0.414	1.000	
16	40 ppm-Avg	Average		40.000	0.415	1.000	Avg of preceding 3 Samples
17	80 ppm	Std-Repeat		80.000	0.648	1.000	
18	80 ppm-2	Std-Repeat		80.000	0.647	1.000	
19	80 ppm-3	Std-Repeat		80.000	0.647	1.000	
20	80 ppm-Avg	Average		80.000	0.647	1.000	Avg of preceding 3 Samples
21							

Sample Table



Penentuan Absorbansi Ekstrak Aseton

Sample Table - (Active)

	Sample ID	Type	Ex	Conc	WL433.6	Comment
1	daun ubi jalar p1	Unk-Repeat			0.302	
2	daun ubi jalar p1-2	Unk-Repeat			0.302	
3	daun ubi jalar p1-3	Unk-Repeat			0.302	
4	daun ubi jalar p1-Avg	Average		16.972	0.302	Avg of preceding 3
5	daun ubi jalar p2	Unk-Repeat			0.304	
6	daun ubi jalar p2-2	Unk-Repeat			0.304	
7	daun ubi jalar p2-3	Unk-Repeat			0.305	
8	daun ubi jalar p2-Avg	Average		17.479	0.304	Avg of preceding 3
9	daun ubi jalar p3	Unk-Repeat			0.304	
10	daun ubi jalar p3-2	Unk-Repeat			0.305	
11	daun ubi jalar p3-3	Unk-Repeat			0.305	
12	daun ubi jalar p3-Avg	Average			0.305	
13						

d. Hasil Uji Flavonoid Baku Pembanding Quarsetin

Standard Table - [Active]

	Sample ID	Type	Ex	Conc	WL431.0	Wgt.Factor	Comments
1	40 PPM	Std-Repeat		40.000	0.333	1.000	
2	40 PPM-2	Std-Repeat		40.000	0.335	1.000	
3	40 PPM-3	Std-Repeat		40.000	0.334	1.000	
4	40 PPM-Avg	Average		40.000	0.334	1.000	Avg of preceding 3 Samples
5	20 PPM	Std-Repeat		20.000	0.220	1.000	
6	20 PPM-2	Std-Repeat		20.000	0.221	1.000	
7	20 PPM-3	Std-Repeat		20.000	0.221	1.000	
8	20 PPM-Avg	Average		20.000	0.221	1.000	Avg of preceding 3 Samples
9	100 PPM	Std-Repeat		100.000	0.762	1.000	
10	100 PPM-2	Std-Repeat		100.000	0.762	1.000	
11	100 PPM-3	Std-Repeat		100.000	0.762	1.000	
12	100 PPM-Avg	Average		100.000	0.762	1.000	Avg of preceding 3 Samples
13	60 PPM	Std-Repeat		60.000	0.471	1.000	
14	60 PPM-2	Std-Repeat		60.000	0.474	1.000	
15	60 PPM-3	Std-Repeat		60.000	0.475	1.000	
16	60 PPM-Avg	Average		60.000	0.473	1.000	Avg of preceding 3 Samples
17	80 PPM	Std-Repeat		80.000	0.609	1.000	
18	80 PPM -2	Std-Repeat		80.000	0.608	1.000	
19	80 PPM -3	Std-Repeat		80.000	0.609	1.000	
20	80 PPM -Avg	Average		80.000	0.609	1.000	Avg of preceding 3 Samples
21							

Penentuan Absorbansi Ekstrak Etil Asetat

	Sample ID	Type	Ex	Conc	WL431.0	Comments
2	SAMPEL 1-2	Unk-Repeat			0.438	
3	SAMPEL 1-3	Unk-Repeat			0.445	
4	SAMPEL	Average		54.168	0.440	Avg of preceding 3 Samples
5	SAMPEL 2	Unk-Repeat			0.413	
6	SAMPEL 2-2	Unk-Repeat			0.412	
7	SAMPEL 2-3	Unk-Repeat			0.413	
8	SAMPEL	Average		50.107	0.413	Avg of preceding 3 Samples
9	SAMPEL 3	Unk-Repeat			0.401	
10	SAMPEL 3-2	Unk-Repeat			0.398	
11	SAMPEL 3-3	Unk-Repeat			0.396	
12	SAMPEL	Average		47.969	0.398	Avg of preceding 3 Samples
13						