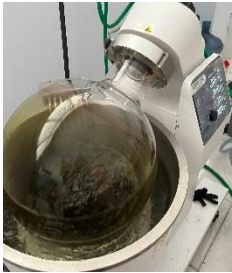


LAMPIRAN

Lampiran 1. Pengolahan serbuk simplisia dan ekstraksi daun sablo

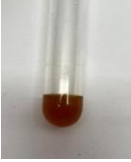
Gambar	Keterangan
	Pengumpulan sampel
	Pencucian sampel
	Perajangan sampel
	Pengeringan sampel

	Penghalusan sampel menggunakan blender hingga diperoleh serbuk simplisia
	Proses ekstraksi (metode maserasi)
	Pengentalan (<i>Rotary evaporator</i>)

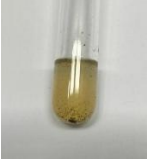
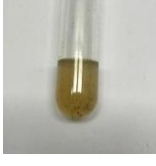
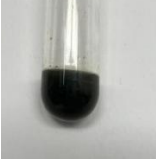
Lampiran 2. Fraksinasi Ekstrak Etanol Daun Sablo (*Acalypha wilkesiana*)

Gambar	Keterangan
	Menimbang 20gr ekstrak kental
	Melarutkan ekstrak hingga homogen menggunakan 200ml aquadest
	Terbentuk 2 fase N-heksan dan etanol
	Fase etil asetat dan etanol
	Menguapkan fraksi N-heksan, Fraksi etil asetat dan fraksi etanol hingga kering

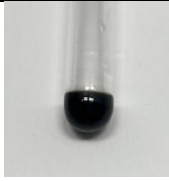
Lampiran 3. Uji pendahuluan skrining fitokimia fraksi N-heksan

Gambar	Keterangan
	- flavonoid
	- Alkaloid (Pereaksi mayer)
	+ Alkaloid (Pereaksi bouchardat)
	+ Alkaloid (Pereaksi dragendroff)
	- Saponin
	-Tanin
	+ Steroid

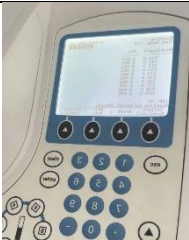
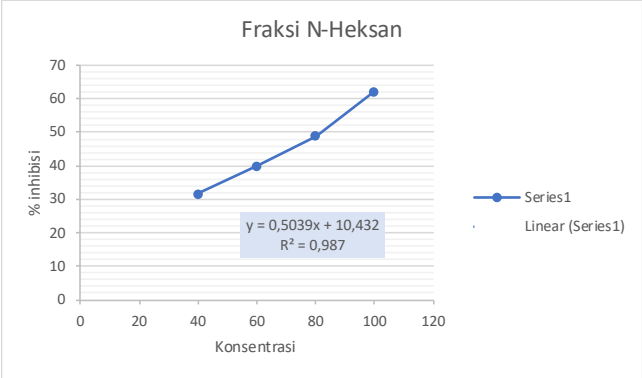
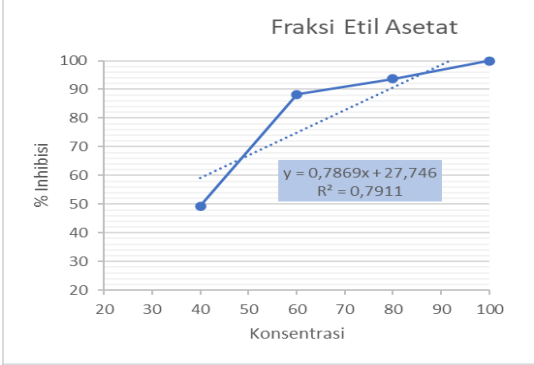
Lampiran 4. Uji pendahuluan skrining fitokimia fraksi Etil asetat

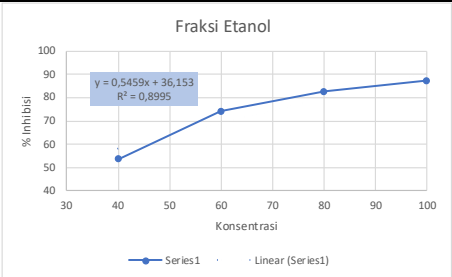
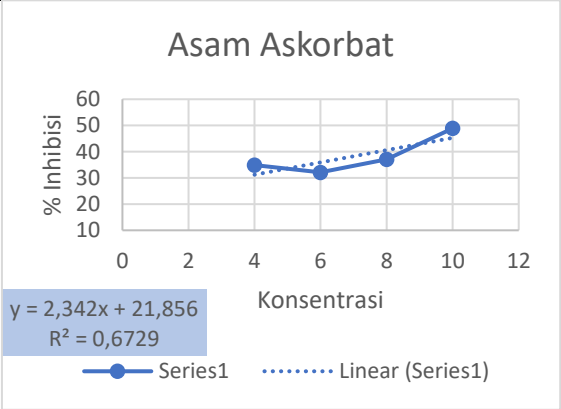
Gambar	Keterangan
	+ flavonoid
	- Alkaloid (Pereaksi mayer)
	+ Alkaloid (Pereaksi bouchardat)
	+ Alkaloid (Pereaksi dragendroff)
	- Saponin
	+ Tanin
	- Steroid

Lampiran 5. Uji pendahuluan skrining fitokimia fraksi Etanol

Gambar	Keterangan
	+ flavonoid
	+ Alkaloid (Pereaksi mayer)
	+ Alkaloid (Pereaksi bouchardat)
	+ Alkaloid (Pereaksi dragendroff)
	+ Saponin
	+ Tanin
	- Steroid

Lampiran 6. Uji aktivitas antioksidan

Gambar	Keterangan
	Larutan sampel
	Pengukuran absorbansi DPPH
Fraksi N-Heksan 	Regresi linear % inhibisi Fraksi N-heksan daun sablo (<i>Acalypha wilkesiana</i>)
Fraksi Etil Asetat 	Regresi linear % inhibisi Fraksi Etil asetat daun sablo (<i>Acalypha wilkesiana</i>)

 Fraksi Etanol $y = 0,5459x + 36,153$ $R^2 = 0,8995$ % Inhibisi Konsentrasi Series1 Linear (Series1)	Regresi linear % inhibisi Fraksi etanol daun sablo (<i>Acalypha wilkesiana</i>)
 Asam Askorbat $y = 2,342x + 21,856$ $R^2 = 0,6729$ % Inhibisi Konsentrasi Series1 Linear (Series1)	Regresi linear % inhibisi asam askorbat

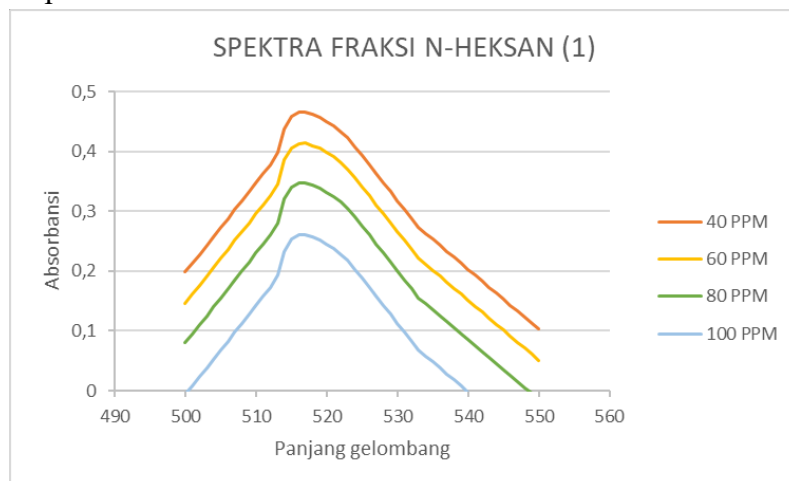
Lampiran 7. Spektra Blanko dan Sampel

1. Blanko

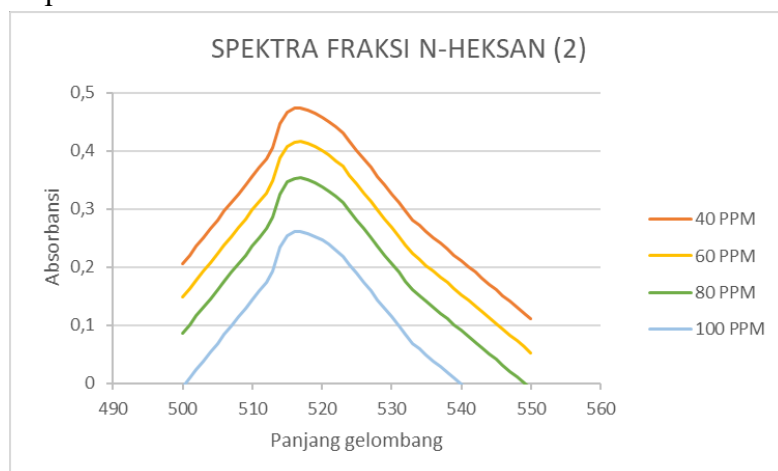


2. Fraksi N-Heksan

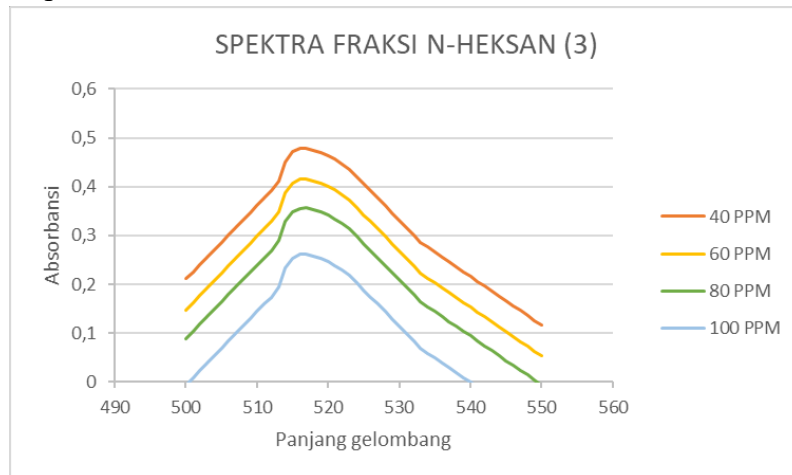
Replikasi 1



Replikasi 2

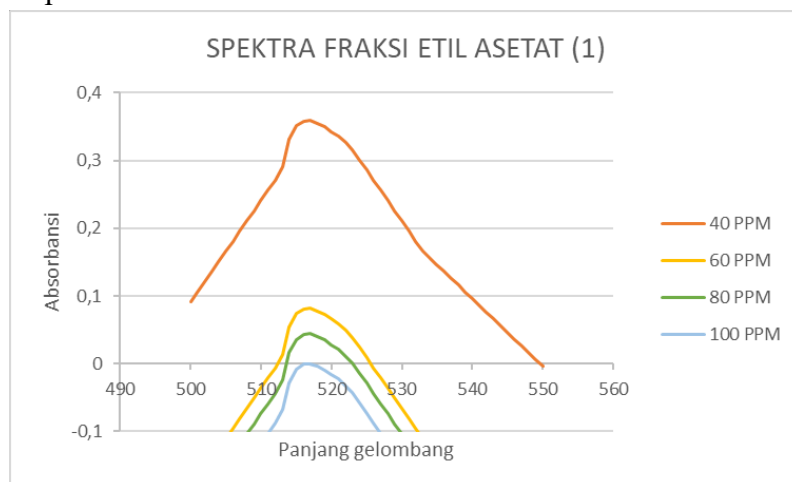


Replikasi 3

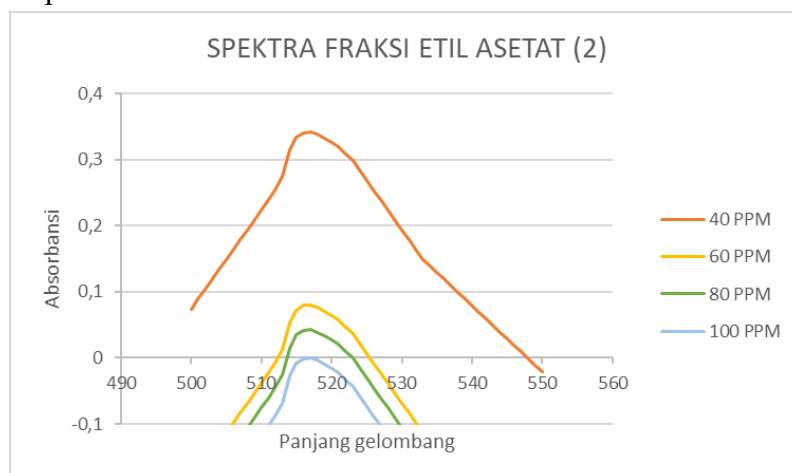


3. Fraksi Etil Asetat

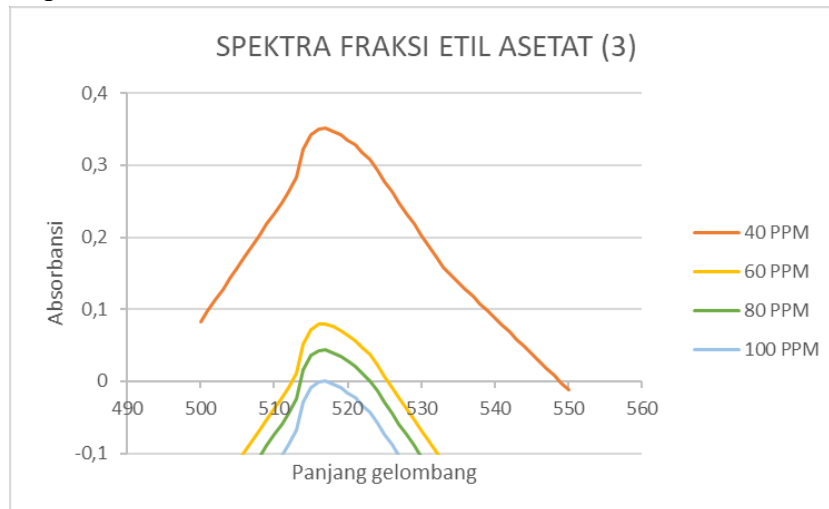
Replikasi 1



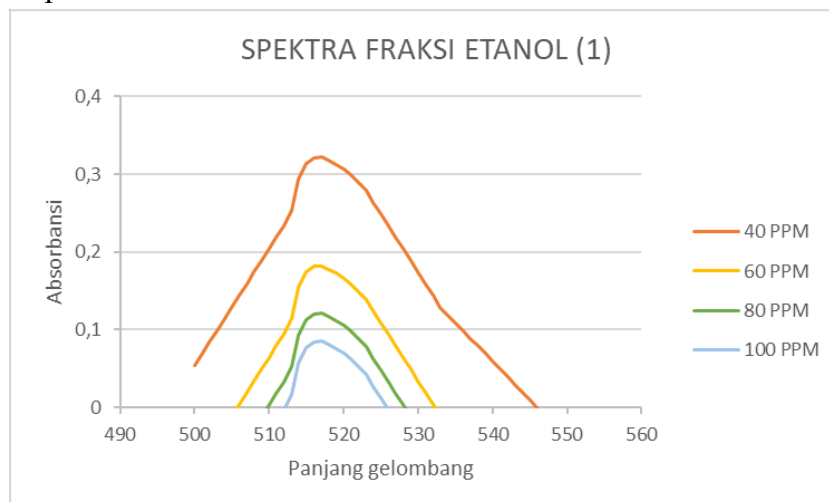
Replikasi 2



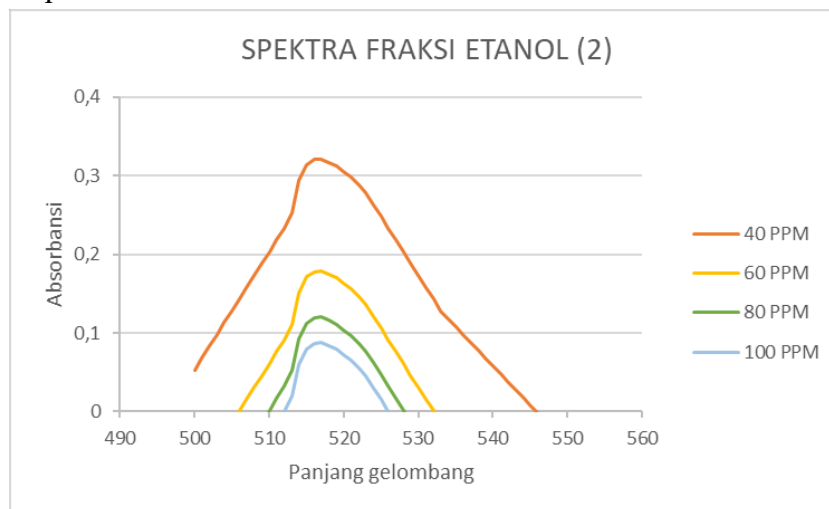
Replikasi 3



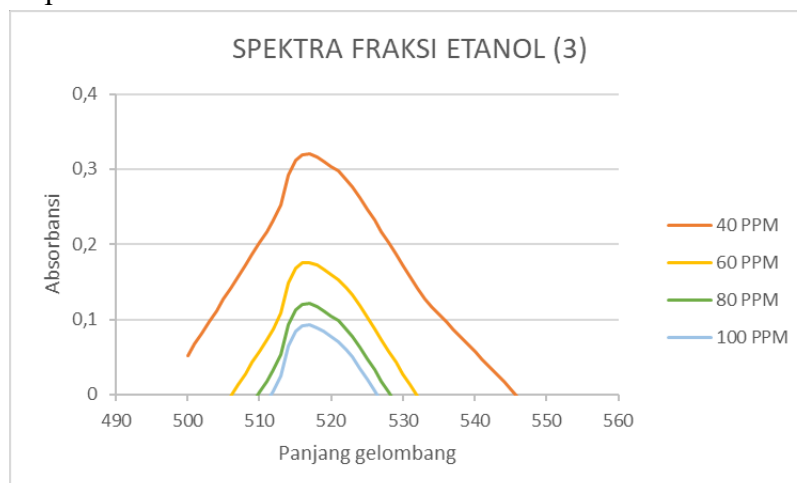
4. Fraksi Etanol
Replikasi 1



Replikasi 2

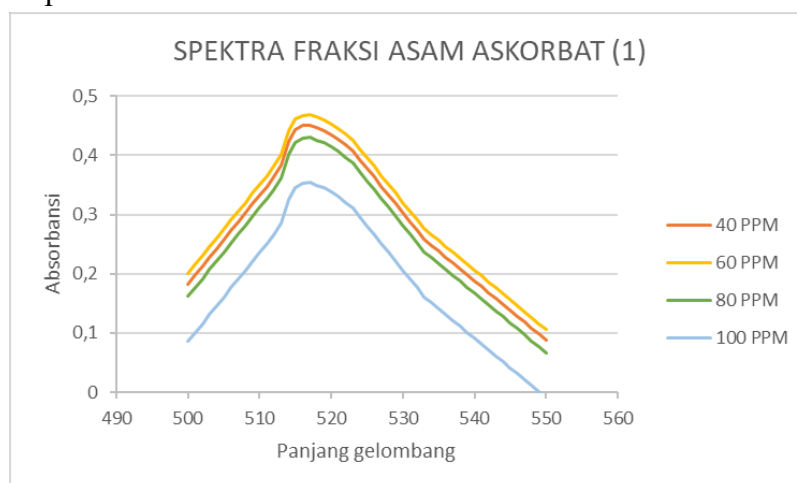


Replikasi 3

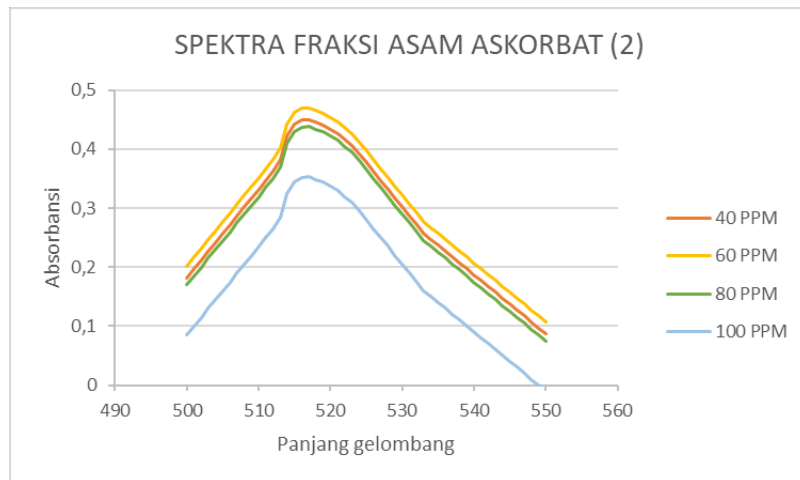


5. Asam askorbat

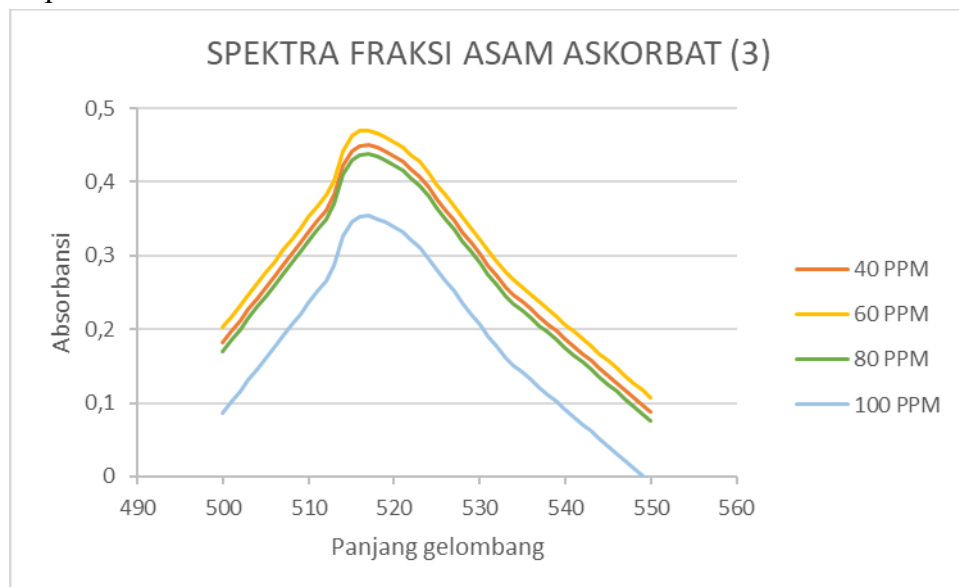
Replikasi 1



Replikasi 2



Replikasi 3



Lampiran 8. Perhitungan Antioksidan Ekstrak dan Fraksi Daun Sablo

A. Pengenceran konsentrasi sampel

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (100 ppm)} \\ 1000.V_1 &= 100.5 \\ V_1 &= \frac{500}{1000} = 0,5 \text{ ml} \end{aligned}$$

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (80 ppm)} \\ 1000.V_1 &= 80.5 \\ V_1 &= \frac{400}{1000} = 0,4 \text{ ml} \end{aligned}$$

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (60 ppm)} \\ 1000.V_1 &= 60.5 \\ V_1 &= \frac{300}{1000} = 0,3 \text{ ml} \end{aligned}$$

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (40 ppm)} \\ 1000.V_1 &= 40.5 \\ V_1 &= \frac{200}{1000} = 0,2 \text{ ml} \end{aligned}$$

B. Pengenceran konsentrasi asam askorbat

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (10 ppm)} \\ 100.V_1 &= 10.5 \\ V_1 &= \frac{50}{100} = 0,5 \text{ ml} \end{aligned}$$

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (8 ppm)} \\ 100.V_1 &= 8.5 \\ V_1 &= \frac{40}{100} = 0,4 \text{ ml} \end{aligned}$$

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (6 ppm)} \\ 100.V_1 &= 6.5 \\ V_1 &= \frac{30}{100} = 0,3 \text{ ml} \end{aligned}$$

$$\begin{aligned} M_1.V_1 &= M_2.V_2 \text{ (4 ppm)} \\ 100.V_1 &= 4.5 \\ V_1 &= \frac{20}{100} = 0,2 \text{ ml} \end{aligned}$$

C. Perhitungan % inhibisi Fraksi N-heksan

$$\text{RUMUS: \%Inhibisi} = \frac{\text{Abs.Blanko} - \text{Abs.Sampel}}{\text{Abs.Blanko}} \times 100\%$$

1. Replikasi 1

% inhibisi 40 ppm	$= \frac{0,692-0,466}{0,692} \times 100\% = 32,65\%$
% inhibisi 60 ppm	$= \frac{0,692-0,414}{0,692} \times 100\% = 40,17\%$
% inhibisi 80 ppm	$= \frac{0,692-0,348}{0,692} \times 100\% = 49,71\%$
% inhibisi 100 ppm	$= \frac{0,692-0,261}{0,692} \times 100\% = 62,28\%$
2. Replikasi 2	
% inhibisi 40 ppm	$= \frac{0,692-0,474}{0,692} \times 100\% = 31,50\%$
% inhibisi 60 ppm	$= \frac{0,692-0,416}{0,692} \times 100\% = 39,88\%$
% inhibisi 80 ppm	$= \frac{0,692-0,354}{0,692} \times 100\% = 48,84\%$
% inhibisi 100 ppm	$= \frac{0,692-0,262}{0,692} \times 100\% = 62,13\%$
3. Replikasi 3	
% inhibisi 40 ppm	$= \frac{0,692-0,479}{0,692} \times 100\% = 30,78\%$
% inhibisi 60 ppm	$= \frac{0,692-0,416}{0,692} \times 100\% = 39,88\%$
% inhibisi 80 ppm	$= \frac{0,692-0,357}{0,692} \times 100\% = 48,41\%$
% inhibisi 100 ppm	$= \frac{0,692-0,262}{0,692} \times 100\% = 62,28\%$

D. Perhitungan % inhibisi Fraksi Etil asetat

$$\text{RUMUS : \%Inhibisi} = \frac{\text{Abs.Blanko}-\text{Abs.Sampel}}{\text{Abs.Blanko}} \times 100\%$$

1. Replikasi 1	
% inhibisi 40 ppm	$= \frac{0,692-0,359}{0,692} \times 100\% = 48,12\%$
% inhibisi 60 ppm	$= \frac{0,692-0,082}{0,692} \times 100\% = 88,15\%$
% inhibisi 80 ppm	$= \frac{0,692-0,044}{0,692} \times 100\% = 93,64\%$
% inhibisi 100 ppm	$= \frac{0,692-0,000}{0,692} \times 100\% = 100\%$
2. Replikasi 2	
% inhibisi 40 ppm	$= \frac{0,692-0,342}{0,692} \times 100\% = 50,57\%$
% inhibisi 60 ppm	$= \frac{0,692-0,080}{0,692} \times 100\% = 88,43\%$
% inhibisi 80 ppm	$= \frac{0,692-0,043}{0,692} \times 100\% = 93,78\%$
% inhibisi 100 ppm	$= \frac{0,692-0,000}{0,692} \times 100\% = 100\%$
3. Replikasi 3	
% inhibisi 40 ppm	$= \frac{0,692-0,351}{0,692} \times 100\% = 49,27\%$
% inhibisi 60 ppm	$= \frac{0,692-0,080}{0,692} \times 100\% = 88,43\%$
% inhibisi 80 ppm	$= \frac{0,692-0,044}{0,692} \times 100\% = 93,64\%$

$$\% \text{ inhibisi 100 ppm} = \frac{0,692 - 0,000}{0,692} \times 100\% = 100\%$$

E. Perhitungan % inhibisi Fraksi Etanol

$$\text{RUMUS: \%Inhibisi} = \frac{\text{Abs.Blanko} - \text{Abs.Sampel}}{\text{Abs.Blanko}} \times 100\%$$

1. Replikasi 1

$$\% \text{ inhibisi 40 ppm} = \frac{0,692 - 0,322}{0,692} \times 100\% = 53,46\%$$

$$\% \text{ inhibisi 60 ppm} = \frac{0,692 - 0,182}{0,692} \times 100\% = 73,69\%$$

$$\% \text{ inhibisi 80 ppm} = \frac{0,692 - 0,121}{0,692} \times 100\% = 82,51\%$$

$$\% \text{ inhibisi 100 ppm} = \frac{0,692 - 0,085}{0,692} \times 100\% = 87,71\%$$

2. Replikasi 2

$$\% \text{ inhibisi 40 ppm} = \frac{0,692 - 0,321}{0,692} \times 100\% = 53,61\%$$

$$\% \text{ inhibisi 60 ppm} = \frac{0,692 - 0,179}{0,692} \times 100\% = 74,13\%$$

$$\% \text{ inhibisi 80 ppm} = \frac{0,692 - 0,120}{0,692} \times 100\% = 82,65\%$$

$$\% \text{ inhibisi 100 ppm} = \frac{0,692 - 0,088}{0,692} \times 100\% = 87,28\%$$

3. Replikasi 3

$$\% \text{ inhibisi 40 ppm} = \frac{0,692 - 0,320}{0,692} \times 100\% = 53,75\%$$

$$\% \text{ inhibisi 60 ppm} = \frac{0,692 - 0,176}{0,692} \times 100\% = 74,56\%$$

$$\% \text{ inhibisi 80 ppm} = \frac{0,692 - 0,121}{0,692} \times 100\% = 82,51\%$$

$$\% \text{ inhibisi 100 ppm} = \frac{0,692 - 0,093}{0,692} \times 100\% = 86,56\%$$

F. Perhitungan % inhibisi Asam askorbat

$$\text{RUMUS: \%Inhibisi} = \frac{\text{Abs.Blanko} - \text{Abs.Sampel}}{\text{Abs.Blanko}} \times 100\%$$

1. Replikasi 1

$$\% \text{ inhibisi 4 ppm} = \frac{0,692 - 0,451}{0,692} \times 100\% = 34,82\%$$

$$\% \text{ inhibisi 6 ppm} = \frac{0,692 - 0,469}{0,692} \times 100\% = 32,22\%$$

$$\% \text{ inhibisi 8 ppm} = \frac{0,692 - 0,430}{0,692} \times 100\% = 37,86\%$$

$$\% \text{ inhibisi 10 ppm} = \frac{0,692 - 0,354}{0,692} \times 100\% = 48,84\%$$

2. Replikasi 2

$$\% \text{ inhibisi 4 ppm} = \frac{0,692 - 0,450}{0,692} \times 100\% = 34,97\%$$

$$\% \text{ inhibisi 6 ppm} = \frac{0,692 - 0,470}{0,692} \times 100\% = 32,08\%$$

$$\% \text{ inhibisi 8 ppm} = \frac{0,692 - 0,438}{0,692} \times 100\% = 36,70\%$$

$$\begin{aligned} \% \text{ inhibisi 10 ppm} &= \frac{0,692-0,353}{0,692} \times 100\% = 48,98\% \\ 3. \text{ Replikasi 3} \\ \% \text{ inhibisi 4 ppm} &= \frac{0,692-0,450}{0,692} \times 100\% = 34,97\% \\ \% \text{ inhibisi 6 ppm} &= \frac{0,692-0,470}{0,692} \times 100\% = 32,08\% \\ \% \text{ inhibisi 8 ppm} &= \frac{0,692-0,438}{0,692} \times 100\% = 36,70\% \\ \% \text{ inhibisi 10 ppm} &= \frac{0,692-0,354}{0,692} \times 100\% = 48,84\% \end{aligned}$$

G. Perhitungan Nilai IC₅₀

1. Perhitungan IC₅₀ Fraksi N-heksan

$$y = 0,5039x + 10,432$$

$$x = \frac{50-a}{b}$$

$$x = \frac{50-10,432}{0,5039}$$

$$IC_{50} = 78,52 \text{ ppm (kuat)}$$

2. Perhitungan IC₅₀ Fraksi Etil Asetat

$$y = 0,7869x + 27,746$$

$$x = \frac{50-a}{b}$$

$$x = \frac{50-27,746}{0,7869}$$

$$IC_{50} = 28,28 \text{ (sangat kuat)}$$

3. Perhitungan IC₅₀ Fraksi Etanol

$$y = 0,5459x + 36,153$$

$$x = \frac{50-a}{b}$$

$$x = \frac{50-36,153}{0,5459}$$

$$IC_{50} = 25,36 \text{ ppm (sangat kuat)}$$

4. Perhitungan IC₅₀ (Regresi Linier) Asam Askorbat

$$y = 2.4915x + 77.557$$

$$x = \frac{50-a}{b}$$

$$IC_{50} = 12,01 \text{ ppm}$$

Lampiran 9. Surat Keterangan Penggunaan Laboratorium



**MAJELIS PENDIDIKAN TINGGI, PENELITIAN, DAN PENGEMBANGAN
UNIVERSITAS MUHAMMADIYAH PALOPO
FAKULTAS ILMU KESEHATAN
PROGRAM STUDI FARMASI
LABORATORIUM FARMASI**

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**SURAT KETERANGAN
NOMOR: 011KET/III.3.AU/LAB-FARM/F/2024**

Yang bertanda tangan dibawah ini :

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

Jabatan : Ketua Program Studi Farmasi

Menerangkan dengan sesungguhnya bahwa :

Nama : Arini

Nim : 221320107

Judul : Uji aktivitas antioksidan fraksi n heksan, etil asetat dan fraksi etanol daun sablo (*Acalypha wilkesiana*) dengan metode DPHH

Jurusan/Prodi : Farmasi (S1)

Perguruan Tinggi : Universitas Muhammadiyah Palopo

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

Demikian Surat Keterangan ini diberikan untuk dipergunakan sebagaimana mestinya.

Palopo, 03 juni 2026

Ketua Program Studi Farmasi



apt. Waode Suiyarti., S.Si., M.Si
NIDN. 0904108703

BIODATA PENULIS

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6. Pekerjaan : Pelajar (Mahasiswa)
7. E-Mail : arinn.eyr@gmail.com
8. Kontak Pribadi : 082190606407

B. Riwayat pendidikan

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4. Universitas Muhammadiyah Palopo (2022-2026)

Palopo, 19 Mei 2026

Arini