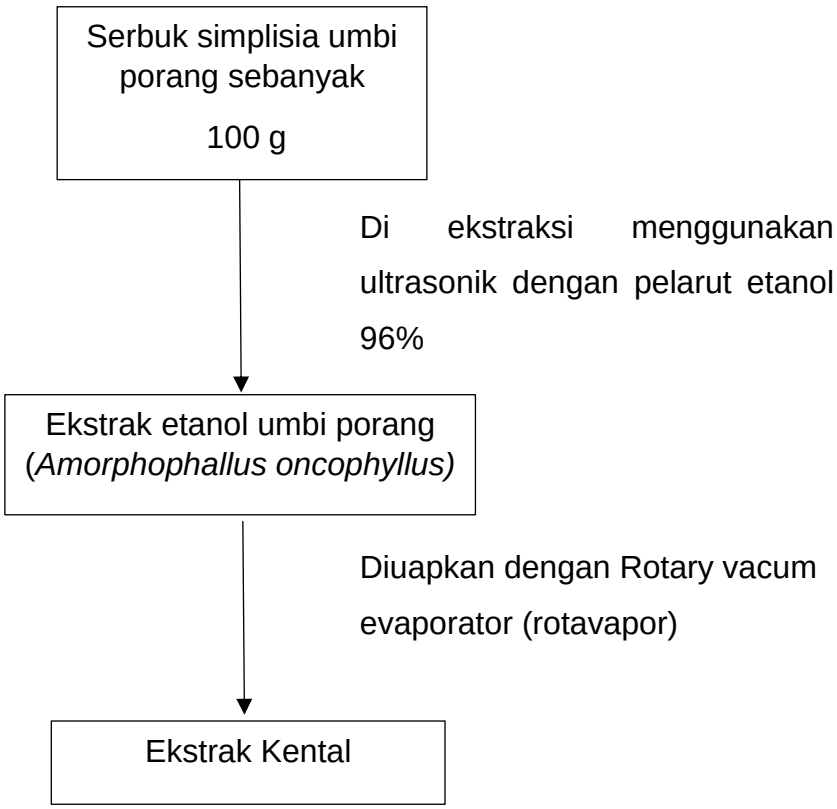
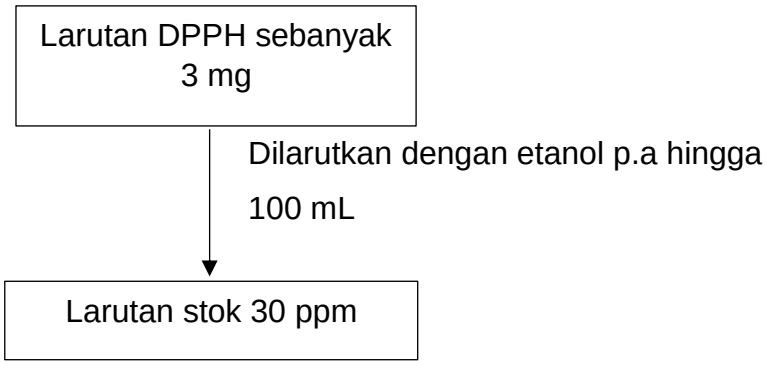
LAMPIRAN

Lampiran 1. Skema Kerja Ekstraksi Ultrasonik Umbi Porang (*Amorphophallus oncophyllus*)

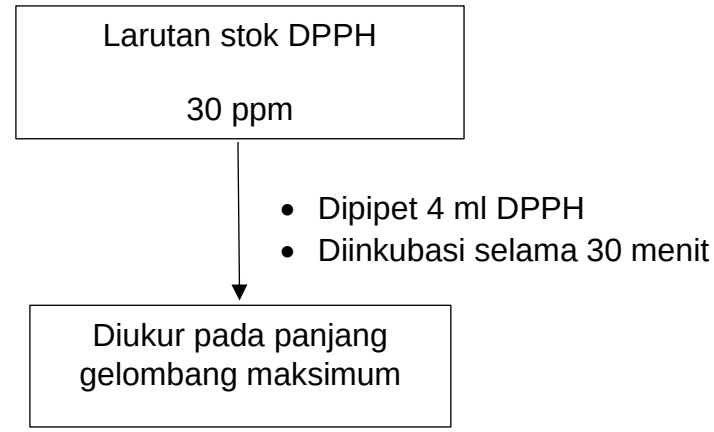


Lampiran 2. Skema kerja pengukuran daya antioksidan

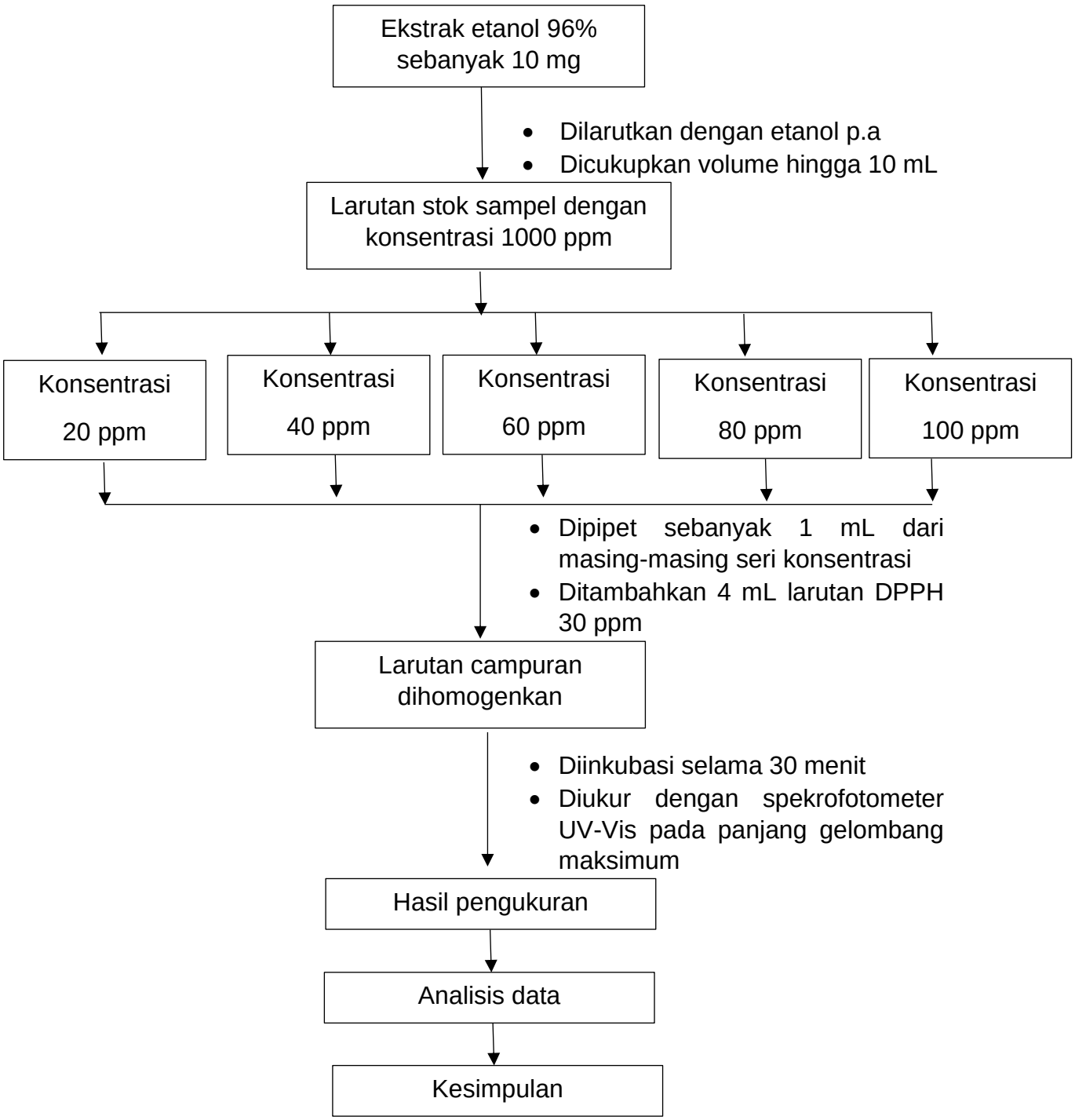
a. Pembuatan larutan stok DPPH



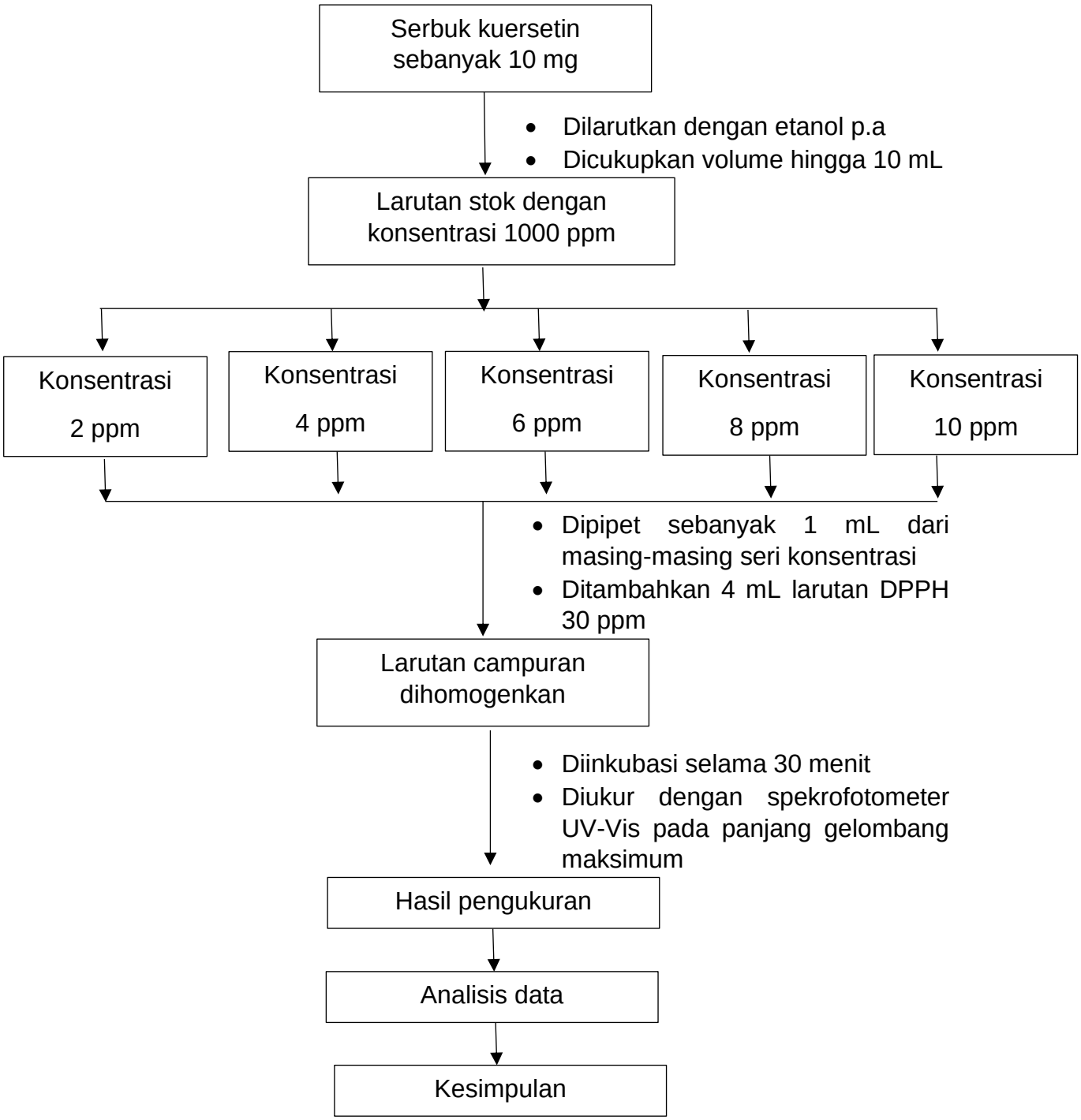
b. Penentuan panjang gelombang maksimum larutan DPPH



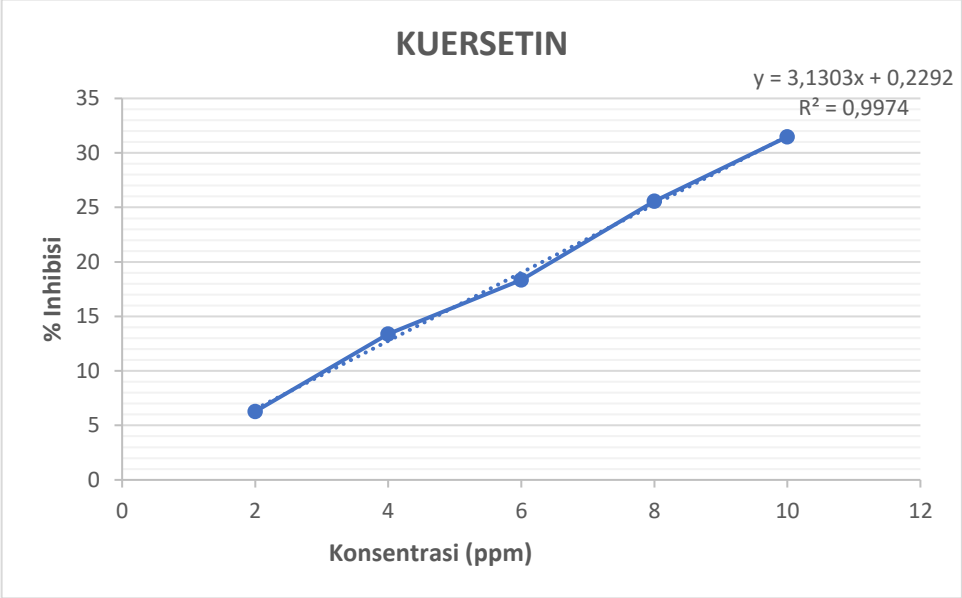
Lampiran 3. Skema kerja uji aktivitas antioksidan ekstrak etanol 96% Umbi Porang (*Amorphophallus oncophyllus*)



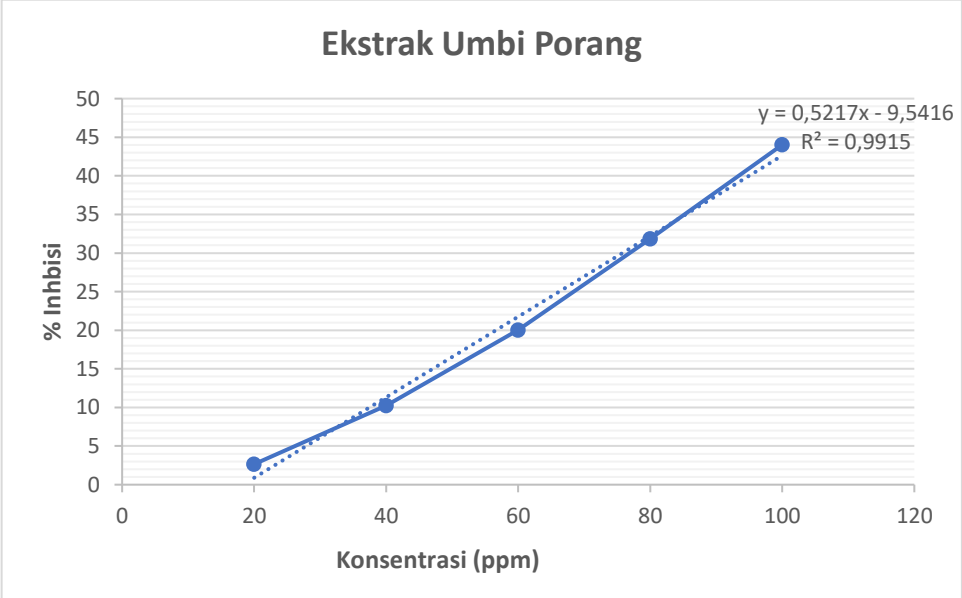
Lampiran 4. Skema kerja uji aktivitas antioksidan kuersetin sebagai pembanding



Lampiran 5. Grafik hubungan antara konsentrasi sampel umbi porang, pembanding kuersetin dengan % inhibisi



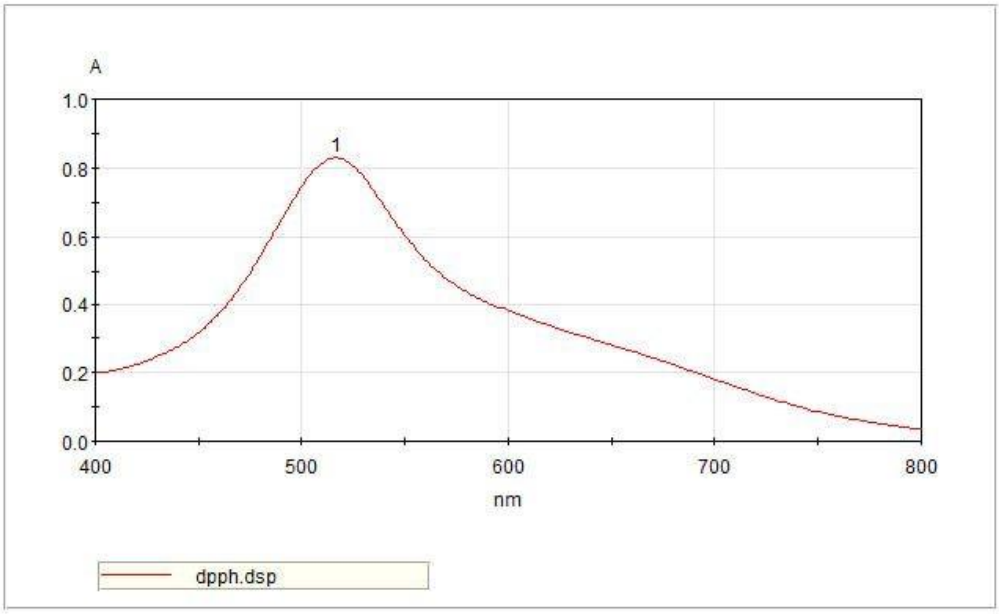
Gambar 2. Grafik hubungan antara konsentrasi pembanding kuersetin dengan % inhibisi



Gambar 3. Grafik hubungan antara konsentrasi ekstrak etanol umbi porang dengan % inhibisi

Lampiran 6. Hasil pengukuran panjang gelombang maksimum DPPH

Spectrum:	dpph.dsp
Description:	
Operator:	NPC-PC\NPC
Created:	28/02/2023 15:59:59
Spectrophotometer:	GENESYS 10S UV-Vis
Serial number:	2L5T258206
Firmware:	4.006
Baseline:	28/02/2023 15:31:19



dpph.dsp

Maxima	Threshold: 0,01 A
1 516 nm;	0,829 A

Gambar 4. Pengukuran panjang gelombang maksimum DPPH

Lampiran 7. Perhitungan % inhibisi dan IC_{50} pembanding kuersetin

a. % inhibisi= $\frac{(Abs\ standar - Abs\ sampel)}{Abs\ standar}\ x\ 100\%$

2 ppm = $\frac{(0{,}829 - 0{,}777)}{0{,}829}\ x\ 100\%$

= 6,272%

4 ppm = $\frac{(0{,}829 - 0{,}718)}{0{,}829}\ x\ 100\%$

= 13,389%

6 ppm = $\frac{(0{,}829 - 0{,}677)}{0{,}829}\ x\ 100\%$

= 18,335%

8 ppm = $\frac{(0{,}829 - 0{,}618)}{0{,}829}\ x\ 100\%$

= 25,572%

10 ppm = $\frac{(0{,}829 - 0{,}568)}{0{,}829}\ x\ 100\%$

= 31,483%

b. Perhitungan IC_{50} sampel umbi porang

y = bx + a

$y = 3{,}1303_x + 0{,}2292$

$R^2 = 0{,}9974$

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

$IC_{50} = \frac{50 - 0{,}2292}{3{,}13303}$

IC_{50} = 15,899 µg/mL

Lampiran 8. Perhitungan % inhibisi dan IC_{50} ekstra etanol umbi porang (*Amorphophallus oncophyllus*)

a. % inhibisi = $\frac{(Abs\ standar - Abs\ sampel)}{Abs\ standar}\ x\ 100\%$

20 ppm = $\frac{(0{,}829 - 0{,}807)}{0{,}829}\ x\ 100\%$

= 2,653%

40 ppm = $\frac{(0{,}829 - 0{,}744)}{0{,}829}\ x\ 100\%$

= 10,253%

60 ppm = $\frac{(0{,}829 - 0{,}663)}{0{,}829}\ x\ 100\%$

= 20,024%

80 ppm = $\frac{(0{,}829 - 0{,}565)}{0{,}829}\ x\ 100\%$

= 31,845%

100 ppm = $\frac{(0{,}829 - 0{,}464)}{0{,}829}\ x\ 100\%$

= 44,028%

b. Perhitungan IC_{50} sampel umbi porang

y = bx + a

y = 0,5217x – 9,5416

R^2 = 0,9915

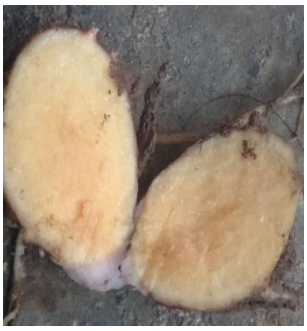
$IC_{50} = \frac{50 - a}{b}$

$IC_{50} = \frac{50 - (-9{,}5416)}{0{,}5217}$

IC_{50} = 114,129 µg/mL

Lampiran 9. Tanaman Porang (*Amorphophallus oncophyllus*)

a. Tanaman Porang



b. Umbi Porang

(Sumber : Dokumentasi Pribadi)

Gambar 5. Foto sampel tanaman dan umbi porang

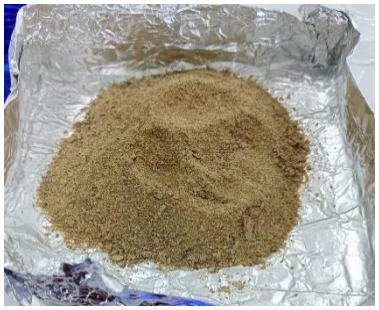
Lampiran 10. Pembuatan simplisia umbi porang (*Amorphophallus oncophyllus*)

Umbi dikupas

Umbi dicuci

Pengubahan bentuk

Proses pengeringan



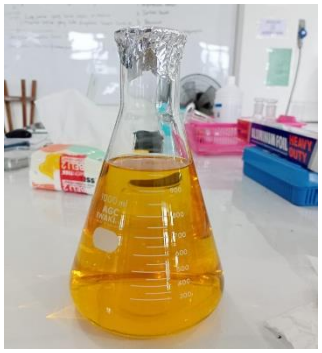
Serbuk simplisia

(Sumber : Dokumentasi Pribadi)

Lampiran 11. Proses sonikasi dan hasil esktraksi umbi porang (*Amorphophallus oncophyllus*)

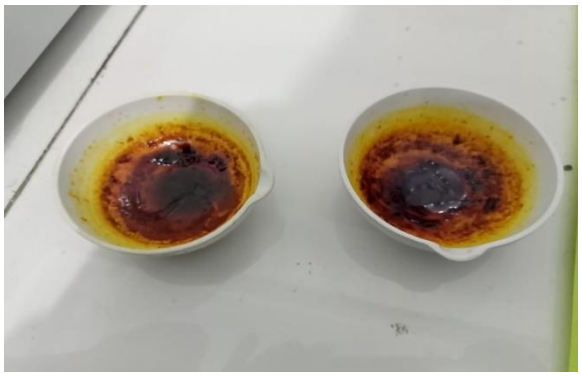
Sampel disonikator

Sampel disaring



Ekstrak cair

Sampel diuapkan



Esktrak kental

(Sumber : Dokumentasi Pribadi)

Lampiran 12. Proses uji aktivitas antioksidan ekstrak etanol umbi porang (*Amorphophallus oncophyllus*)

Pembuatan larutan stok kuersetin

Pembuatan larutan stok DPPH

Pembuatan larutan stok sampel

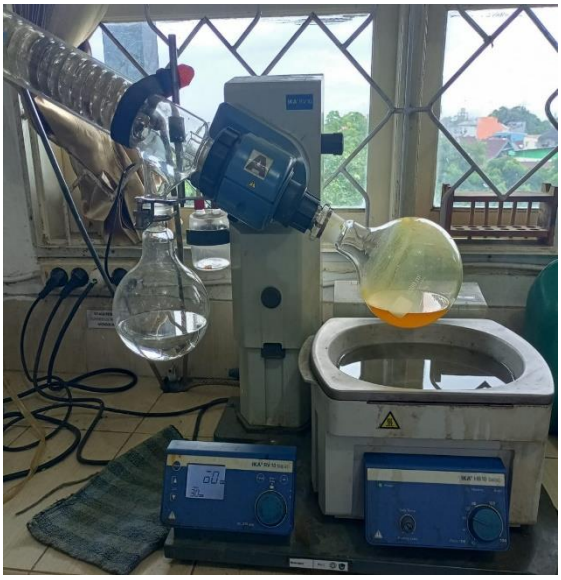
(Sumber : Dokumentasi Pribadi)

Inkubasi pembanding
kuersetin + DPPH

Inkubasi sampel uji + DPPH

(Sumber : Dokumentasi Pribadi)

Lampiran 13. Seperangkat Alat Rotavapor



(Sumber : Dokumentasi Pribadi)

Gambar 6. Alat Rotary Vacuum Evaporator

Lampiran 14. Alat Spektrofotometer UV-Vis

(Sumber : Dokumentasi Pribadi)

Gambar 7. Alat Spektrofotometer UV-Vis

Lampiran 15. Alat Waterbath

(Sumber : Dokumentasi Pribadi)

Gambar 8. Alat Waterbath

Lampiran 16. Alat Timbangan Analitik

(Sumber : Dokumentasi Pribadi)

Gambar 9. Alat Timbangan Analitik

Lampiran 17. Alat Lemari Pengering

(Sumber : Dokumentasi Pribadi)

Gambar 10. Lemari Pengering

Lampiran 18. Alat Ultrasonik

(Sumber : Dokumentasi Pribadi)

Gambar 11. Alat Ultrasonik