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Lampiran 1. Hasil determinasi tanaman kemangi



UPT-LABORATORIUM

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Nomor : 225/DET/UPT-LAB/27.04.2021
Hal : Hasil determinasi tumbuhan
Lamp. : -

Nama Pemesan : Rani Juliyanti
NIM : 20144081A
Program Studi : S1 Farmasi, Universitas Setia Budi, Surakarta
Nama Sampel : *Ocimum sanctum* L.

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom : Plantae
Super Divisi : Spermatophyta
Divisi : Magnoliophyta
Kelas : Magnoliopsida/Dicotyledoneae
Ordo : Lamiales
Famili : Lamiaceae
Genus : *Ocimum*
Species : *Ocimum sanctum* L.

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

1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 14b – 16a. golongan 10. 239b – 243b – 244b – 248b – 249b – 250b – 266b – 267b – 273b – 276b – 278b – 279b – 282a. familia 110. Labiatae. 1a – 2b – 4b – 6b – 7b. 8. *Ocimum*. *Ocimum sanctum* L.

Lampiran 2. Hasil determinasi tanaman kenikir


UNIVERSITAS GADJAH MADA
FAKULTAS BIOLOGI
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Jalan Teknika Selatan Sekip Utara Yogyakarta 55281 Telpun (0274) 6492262/6492272; Fax: (0274) 580839

SURAT KETERANGAN
Nomor : 014922/S.Tb./XI/2020

Yang bertanda tangan dibawah ini, Kepala Laboratorium Sistematika Tumbuhan Fakultas Biologi UGM, menerangkan dengan sesungguhnya bahwa,

Nama : Rani Juliyanti
NIM : 20144081A
Asal instansi : Fakultas Farmasi Universitas Setia Budi

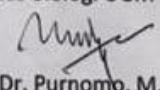
telah melakukan identifikasi tumbuhan dengan hasil sebagai berikut,

Divisi : Tracheophyta
Sub Divisi : Spermatophytina
Kelas : Magnoliopsida
Ordo : Asterales
Familia : Asteraceae
Genus : *Cosmos*
Spesies : *Cosmos caudatus* Kunth
Nama lokal : Kenikir

identifikasi tersebut dibantu oleh Dr. Ratna Susandarini, M.Sc.
Demikian surat keterangan ini diberikan untuk dapat dipergunakan seperlunya.

Mengetahui,
Dekan Fakultas Biologi
Universitas Gadjah Mada

Prof. Dr. Budi Setiadi Daryono, M.Agr.Sc.
NIP. 197003261995121001

Yogyakarta, 18 November 2020
Kepala Laboratorium
Sistematika Tumbuhan
Fakultas Biologi UGM

Prof. Dr. Purnomo, M.S.
NIP. 195504211982031005

Lampiran 3. Surat keterangan ethical clearance

3/19/2021

KEPK-RSDM



HEALTH RESEARCH ETHICS COMMITTEE
KOMISI ETIK PENELITIAN KESEHATAN

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 311 / III / HREC / 2021

The Health Research Ethics Committee Dr. Moewardi
Komisi Etik Penelitian Kesehatan RSUD Dr. Moewardi

after reviewing the proposal design, herewith to certify
setelah menilai rancangan penelitian yang diusulkan, dengan ini menyatakan

That the research proposal with topic :
Bahwa usulan penelitian dengan judul

KOMBINASI EKSTRAK DAUN KEMANGI (*Ocimum sanctum* L.) DAN EKSTRAK DAUN KENIKIR (*Cosmos caudatus* H.B.K) SEBAGAI ANTIPIRETIK PADA TIKUS PUTIH JANTAN

Principal Investigator
Peneliti Utama : Rani Juliyanti
20144081A

Location of research
Lokasi Tempat Penelitian : Laboratorium Farmakologi Universitas Setia Budi

Is ethically approved
Dinyatakan layak etik

Issued on : 19 Maret 2021

Chairman
Ketua

Dr. Wahyu Dwi Atmoko., Sp.F.
19770224 201001 1 004

<https://komisi-etika.rsudmoewardi.com/kank/ethicalclearance/20144081A-0412>

1/1

Lampiran 4. Foto tanaman segar dan kering



Tanaman kenikir segar



Tanaman kemangi segar



Daun kenikir kering



daun kemangi kering

Lampiran 5. Serbuk daun



Serbuk daun kenikir



Serbuk daun kemangi

Lampiran 6. Ekstrak kental



Ekstrak kental daun kemangi dan kenikir

Lampiran 7. Peralatan, bahan dan perlengkapan dalam penelitian



Mesin penggiling



Moisture balance



Ayakan no 40



Botol maserasi



Rotary evaporator



Termometer digital



Larutan sediaan uji ekstrak daun kemangi



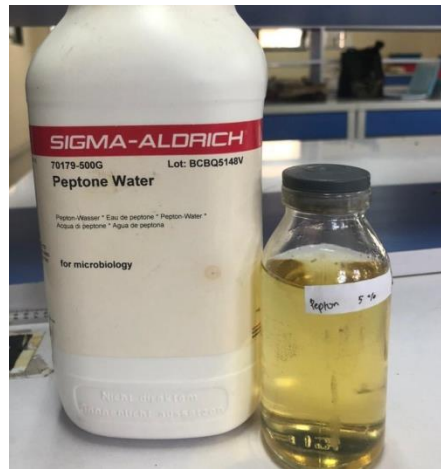
Larutan sediaan uji ekstrak daun kenikir



Larutan parasetamol 1%



Larutan CMC Na 1%



Larutan pepton 5%

Lampiran 8. Perhitungan rendemen daun kering terhadap daun basah

$$\text{Rendemen \%} = \frac{\text{bobot daun kering (g)}}{\text{bobot daun basah (g)}} \times 100\%$$

Rendemen simplisia kemangi (a) :

Bobot basah (g)	Bobot kering (g)	Rendemen (%) b/b
4000	900	21,25

Perhitungan rendemen

$$\text{Rendemen \%} = \frac{900 \text{ g}}{4000 \text{ g}} \times 100\% = 21,25 \%$$

Rendemen simplisia kenikir (b) :

Bobot basah (g)	Bobot kering (g)	Rendemen (%) b/b
5000	1150	23

Perhitungan rendemen

$$\text{Rendemen \%} = \frac{1150 \text{ g}}{5000 \text{ g}} \times 100\% = 23 \%$$

Lampiran 9. Perhitungan rendemen bobot serbuk terhadap bobot daun kering

$$\text{Rendemen \%} = \frac{\text{bobot serbuk (g)}}{\text{bobot daun kering (g)}} \times 100\%$$

Rendemen simplisia kemangi :

Bobot daun kering (g)	Bobot serbuk (g)	Rendemen (%) b/b
900	745	82,78

Perhitungan rendemen

$$\text{Rendemen \%} = \frac{745 \text{ g}}{900 \text{ g}} \times 100\% = 82,78 \%$$

Rendemen simplisia kenikir :

Bobot daun kering (g)	Bobot serbuk (g)	Rendemen (%) b/b
1150	1005	87,39

Perhitungan rendemen

$$\text{Rendemen \%} = \frac{1005 \text{ g}}{1150 \text{ g}} \times 100\% = 87,39\%$$

Lampiran 10. Perhitungan susut pengeringan daun kemangi dan daun kenikir

Susut pengeringan daun kemangi

	Replikasi	Berat awal (g)	Susut pengeringan (%)
Daun kemangi	1	2	8,5
	2	2	8,0
	3	2	8,2

$$\text{Rata-rata} = \frac{8,5 \% + 8,0 \% + 8,2 \%}{3} = 8,23\%$$

Susut pengeringan daun kenikir

	Replikasi	Berat awal (g)	Susut pengeringan (%)
Daun kenikir	1	2	7,5
	2	2	7,4
	3	2	7,4

$$\text{Rata-rata} = \frac{7,5 \% + 7,4 \% + 7,4 \%}{3} = 7,43\%$$

Lampiran 11. Perhitungan hasil rendemen ekstrak

$$\text{Rendemen (\%)} = \frac{\text{bobot ekstrak (g)}}{\text{bobot serbuk (g)}} \times 100\%$$

Rendemen ekstrak etanol daun kemangi

	Bobot serbuk (g)	Berat botol + ekstrak kental (g)	Berat botol (g)	Berat ekstrak (g)	Rendemen (%b/b)
Ekstrak daun kemangi	745	210,72	150	60,72	12,14

$$\text{Rendemen (\%)} = \frac{60,72}{500} \times 100\% = 12,14\%$$

Rendemen ekstrak etanol daun kenikir

	Bobot serbuk (g)	Berat botol + ekstrak kental (g)	Berat botol (g)	Berat ekstrak (g)	Rendemen (% b/b)
Ekstrak daun kenikir	1005	205,04	152	53,04	10,60

$$\text{Rendemen (\%)} = \frac{53,04}{500} \times 100\% = 10,60\%$$

Lampiran 12. Hasil identifikasi kandungan senyawa



Uji flavonoid ekstrak kemangi



Uji flavonoid ekstrak kenikir



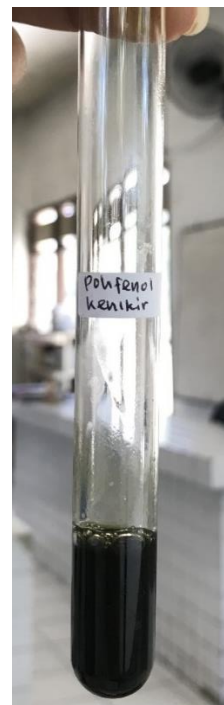
Uji tanin ekstrak kemangi



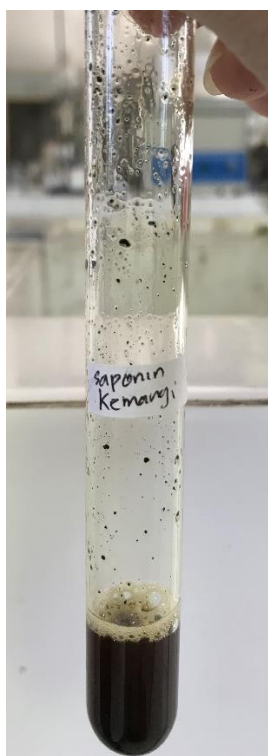
Uji tanin ekstrak kenikir



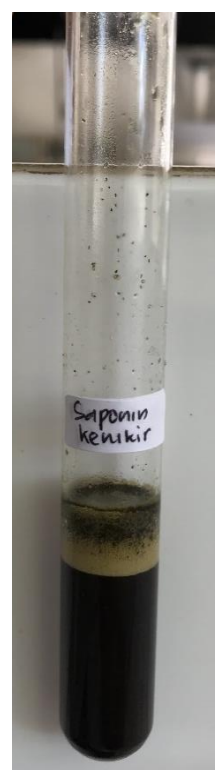
Uji polifenol ekstrak kemangi



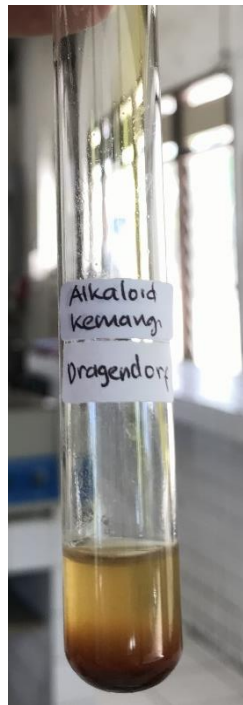
Uji polifenol ekstrak kenikir



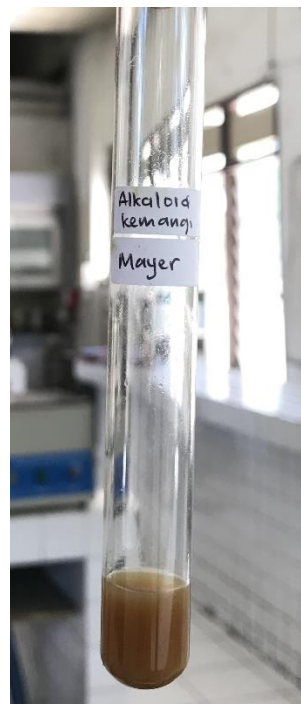
Uji saponin ekstrak kemangi



Uji saponin ekstrak kenikir



Uji alkaloid ekstrak kemangi(reagen Dragendorff)



Uji alkaloid ekstrak kemangi (reagen Mayer)



Uji alkaloid kenikir(reagen Dragendorff)



Uji alkaloid kenikir(reagen Mayer)

Lampiran 13. Hewan uji



Tikus putih jantan galur wistar

Lampiran 14. Perlakuan hewan uji



Pemberian sediaan uji secara peroral



Pengukuran suhu tubuh tikus melalui rektal

Lampiran 15. Perhitungan dosis

1. Kontrol negatif (CMC Na 1%)

Menimbang 1000 mg CMC Na larutkan ke dalam air suling panas ad 100 ml aduk hingga homogen. Volume pemberian 1 ml/tikus

2. Kontrol positif (Parasetamol 1%)

Dosis parasetamol	= 500 mg/kg BB manusia
Faktor konversi manusia ke tikus	= 0,018
Dosis untuk tikus	= 500 mg/kgBB manusia x 0,018
	= 9 mg/200 mg BB tikus
	= 45 mg/kg BB
Larutan stok 1%	= 1000 mg/100
	= 500 mg/ 50 ml

3. Induksi pepton 5%

Dosis pepton 150 mg/kg BB tikus	= $\frac{150 \text{ mg}}{1000} \times 200 \text{ gram}$
	= 30 mg/200 gram BB tikus
Untuk tikus 200 gram	= $\frac{200 \text{ g}}{200 \text{ g}} \times 30 \text{ mg}$
Volume pemberian 1 ml/tikus	= $\frac{30 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml}$
	= 3 ml

4. Ekstrak etanol daun kemangi

Dosis ekstrak etanol daun kemangi 300 mg/kg BB

Jika BB tikus 200 g, maka :

$$= \frac{300 \text{ mg}}{1000} \times 200 \text{ g} = 60 \text{ mg/200 g BB tikus}$$

Variasi dosis yang digunakan :

$\frac{1}{4}$ DE	= 15 mg/200 mg BB tikus
$\frac{1}{2}$ DE	= 30 mg/ 200 mg BB tikus
$\frac{3}{4}$ DE	= 45 mg/ 200 mg BB tikus
Larutan stok	= 1000 mg/100 ml
	= 500 mg/50 ml

5. Ekstrak etanol daun kenikir

Dosis ekstrak etanol daun kenikir 600 mg/kgBB mencit

$$\text{Dosis untuk 20 g mencit} = \frac{600 \text{ mg}}{1000} \times 20 \text{ g} = 12 \text{ mg/20 g BB mencit}$$

Faktor konversi mencit ke tikus 200 g adalah 7,0

$$\begin{aligned}\text{Dosis untuk tikus 200 g} &= 12 \text{ mg/20 g BB mencit} \times 7,0 \\ &= 84 \text{ mg/200 g BB tikus} \\ &= 420 \text{ mg/kg BB}\end{aligned}$$

Variasi dosis yang digunakan :

$$\frac{1}{4} \text{ DE} = 21 \text{ mg/200 mg BB tikus}$$

$$\frac{1}{2} \text{ DE} = 42 \text{ mg/ 200 mg BB tikus}$$

$$\frac{3}{4} \text{ DE} = 63 \text{ mg/ 200 mg BB tikus}$$

$$\text{Larutan stok} = 1000 \text{ mg/100 ml}$$

$$= 500 \text{ mg/50 ml}$$

6. Volume dosis yang diberikan pada masing-masing tikus :

Dosis 1 dengan perbandingan $\frac{1}{4}$ DE ekstrak kemangi : $\frac{3}{4}$ DE ekstrak kenikir

Dosis 2 dengan perbandingan $\frac{1}{2}$ DE ekstrak kemangi : $\frac{1}{2}$ DE ekstrak kenikir

Dosis 3 dengan perbandingan $\frac{3}{4}$ DE ekstrak kemangi : $\frac{1}{4}$ DE ekstrak kenikir

➤ **Dosis 1 perbandingan $\frac{1}{4}$ DE ekstrak kemangi : $\frac{3}{4}$ DE ekstrak kenikir**

$$\frac{1}{4} \text{ DE ekstrak kemangi} = 15 \text{ mg/200 g BB tikus} = 75 \text{ mg/kg BB}$$

$$\frac{3}{4} \text{ DE ekstrak kenikir} = 63 \text{ mg/200 g BB tikus} = 315 \text{ mg/kg BB}$$

❖ Tikus 1 dengan BB 192 gram

- Ekstrak kemangi

$$\text{Dosis untuk tikus 192 gram} = \frac{192 \text{ g}}{200} \times 15 \text{ mg} = 14,4 \text{ mg}$$

$$\text{Volume pemberian} = \frac{14,4 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 1,4 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 192 gram} = \frac{192 \text{ g}}{200} \times 63 \text{ mg} = 60,48 \text{ mg}$$

$$\text{Volume pemberian} = \frac{60,48 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 6 \text{ ml}$$

❖ Tikus 2 dengan BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 195 gram} = \frac{195 \text{ g}}{200} \times 15 \text{ mg} = 14,62 \text{ mg}$$

$$\text{Volume pemberian} = \frac{14,62 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 1,5 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 195 gram} = \frac{195 \text{ g}}{200} \times 63 \text{ mg} = 61,42 \text{ mg}$$

$$\text{Volume pemberian} = \frac{61,42 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 6,1 \text{ ml}$$

❖ Tikus 3 dengan 200 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 15 \text{ mg} = 15 \text{ mg}$$

$$\text{Volume pemberian} = \frac{15 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 1,5 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 63 \text{ mg} = 63 \text{ mg}$$

$$\text{Volume pemberian} = \frac{63 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 6,3 \text{ ml}$$

❖ Tikus 4 dengan 200 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 15 \text{ mg} = 15 \text{ mg}$$

$$\text{Volume pemberian} = \frac{15 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 1,5 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 63 \text{ mg} = 63 \text{ mg}$$

$$\text{Volume pemberian} = \frac{21 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 6,3 \text{ ml}$$

❖ Tikus 5 dengan 190 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 190 gram} = \frac{190 \text{ g}}{200} \times 15 \text{ mg} = 14,25 \text{ mg}$$

$$\text{Volume pemberian} = \frac{14,25 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 1,4 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 190 gram} = \frac{190 \text{ g}}{200} \times 63 \text{ mg} = 59,85 \text{ mg}$$

$$\text{Volume pemberian} = \frac{58,59 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 5,9 \text{ ml}$$

➤ **Dosis 2 perbandingan $\frac{1}{2}$ DE ekstrak kemangi : $\frac{1}{2}$ DE ekstrak kenikir**

$$\frac{1}{2} \text{ DE ekstrak kemangi} = 30 \text{ mg}/200 \text{ g BB tikus} = 150 \text{ mg/kg BB}$$

$$\frac{1}{2} \text{ DE ekstrak kenikir} = 42 \text{ mg}/200 \text{ g BB tikus} = 210 \text{ mg/kg BB}$$

❖ **Tikus 1 dengan BB 192 gram**

- Ekstrak kemangi

$$\text{Dosis untuk tikus 192 gram} = \frac{192 \text{ g}}{200} \times 30 \text{ mg} = 28,8 \text{ mg}$$

$$\text{Volume pemberian} = \frac{28,8 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2,8 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 192 gram} = \frac{192 \text{ g}}{200} \times 42 \text{ mg} = 40,32 \text{ mg}$$

$$\text{Volume pemberian} = \frac{40,32 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4 \text{ ml}$$

❖ **Tikus 2 dengan BB**

- Ekstrak kemangi

$$\text{Dosis untuk tikus 190 gram} = \frac{190 \text{ g}}{200} \times 30 \text{ mg} = 28,5 \text{ mg}$$

$$\text{Volume pemberian} = \frac{28,5 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2,8 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 190 gram} = \frac{190 \text{ g}}{200} \times 42 \text{ mg} = 39,9 \text{ mg}$$

$$\text{Volume pemberian} = \frac{39,9 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 3,9 \text{ ml}$$

❖ Tikus 3 dengan 197 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 197 gram} = \frac{197 \text{ g}}{200} \times 30 \text{ mg} = 29,55 \text{ mg}$$

$$\text{Volume pemberian} = \frac{29,55 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2,9 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{197 \text{ g}}{200} \times 42 \text{ mg} = 41,47 \text{ mg}$$

$$\text{Volume pemberian} = \frac{41,37 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4 \text{ ml}$$

❖ Tikus 4 dengan 200 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 30 \text{ mg} = 30 \text{ mg}$$

$$\text{Volume pemberian} = \frac{30 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 3 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 42 \text{ mg} = 42 \text{ mg}$$

$$\text{Volume pemberian} = \frac{42 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,2 \text{ ml}$$

❖ Tikus 5 dengan 200 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 30 \text{ mg} = 30 \text{ mg}$$

$$\text{Volume pemberian} = \frac{30 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 3 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 42 \text{ mg} = 42 \text{ mg}$$

$$\text{Volume pemberian} = \frac{42 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,2 \text{ ml}$$

➤ **Dosis 3 perbandingan $\frac{3}{4}$ DE ekstrak kemangi : $\frac{1}{4}$ DE ekstrak kenikir**

$$\frac{3}{4} \text{ DE ekstrak kemangi} = 45 \text{ mg}/200 \text{ g BB tikus} = 225 \text{ mg/kg BB}$$

$$\frac{1}{4} \text{ DE ekstrak kenikir} = 21 \text{ mg}/200 \text{ g BB tikus} = 105 \text{ mg/kg BB}$$

❖ Tikus 1 dengan BB 200 gram

- Ekstrak kemangi

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 45 \text{ mg} = 45 \text{ mg}$$

$$\text{Volume pemberian} = \frac{45 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,5 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 21 \text{ mg} = 21 \text{ mg}$$

$$\text{Volume pemberian} = \frac{21 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2,1 \text{ ml}$$

❖ Tikus 2 dengan 190 BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 190 gram} = \frac{190 \text{ g}}{200} \times 45 \text{ mg} = 42,75 \text{ mg}$$

$$\text{Volume pemberian} = \frac{42,75 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,2 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 190 gram} = \frac{190 \text{ g}}{200} \times 21 \text{ mg} = 19,95 \text{ mg}$$

$$\text{Volume pemberian} = \frac{19,95 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 1,9 \text{ ml}$$

❖ Tikus 3 dengan 195 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 195 gram} = \frac{195 \text{ g}}{200} \times 45 \text{ mg} = 43,87 \text{ mg}$$

$$\text{Volume pemberian} = \frac{43,87 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,3 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 195 gram} = \frac{195 \text{ g}}{200} \times 21 \text{ mg} = 20,47 \text{ mg}$$

$$\text{Volume pemberian} = \frac{20,47 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2 \text{ ml}$$

❖ Tikus 4 dengan 195 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 195 gram} = \frac{195 \text{ g}}{200} \times 45 \text{ mg} = 43,87 \text{ mg}$$

$$\text{Volume pemberian} = \frac{43,87 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,3 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 195 gram} = \frac{195 \text{ g}}{200} \times 21 \text{ mg} = 20,47 \text{ mg}$$

$$\text{Volume pemberian} = \frac{20,47 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2 \text{ ml}$$

❖ Tikus 5 dengan 200 g BB

- Ekstrak kemangi

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 45 \text{ mg} = 45 \text{ mg}$$

$$\text{Volume pemberian} = \frac{45 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 4,5 \text{ ml}$$

- Ekstrak kenikir

$$\text{Dosis untuk tikus 200 gram} = \frac{200 \text{ g}}{200} \times 21 \text{ mg} = 21 \text{ mg}$$

$$\text{Volume pemberian} = \frac{21 \text{ mg}}{500 \text{ mg}} \times 50 \text{ ml} = 2,1 \text{ ml}$$

Lampiran 16. Hasil pengukuran penurunan kadar suhu tikus

Replikasi	Perlakuan	T0	T demam	T30	T60	T90	T120	T150	T180
1	CMC Na 1% (Kontrol negatif)	35,2	36,8	37	38	38,3	38,5	38,9	39,2
2		35,6	36,4	36,7	38,2	38,5	38,7	38,9	39,1
3		35,7	36,5	37,7	38,2	38,5	38,7	38,8	39,2
4		35,5	36,9	37,2	37,5	38,2	38,5	38,7	38,9
5		35,8	36,5	37,1	37,7	38	38,3	38,5	39,2
Rata-rata		35,56	36,62	37,14	37,92	38,3	38,54	38,76	39,12
SD		0,25456	0,21679	0,36469	0,3304	0,21213	0,16733	0,16733	0,13038
1	Parasetamol 1% (Kontrol positif)	34,7	36,5	36,2	36	35,8	35,2	35,5	36,3
2		34,3	36,5	35,6	35,2	35,2	35	35,8	36,1
3		34,5	36	35,3	35	34,7	34,7	35	35,5
4		34,3	36,7	35,8	35,6	35,1	34,5	34,9	35,5
5		34,1	36	35,6	35,3	35,3	35	35,3	35,7
Rata-rata		34,38	36,34	35,7	35,42	35,22	34,88	35,3	35,82
SD		0,22804	0,32094	0,33166	0,38987	0,39623	0,27749	0,36742	0,36332
1	Ekstrak daun kemangi : kenikir 75 mg/kgBB : 315 mg/kg BB	35,2	37,8	36,7	36,3	35,1	34,7	34,9	35,3
2		35,4	37,6	36,2	35,5	35,3	35,4	35,8	36
3		34,7	38	37,2	36,4	35,3	35,2	35,7	36,1
4		35,4	37,6	36,9	35,8	35,7	35,4	35,7	35,9
5		35,3	37,9	36,5	35,5	35,8	35,6	35,8	36
Rata-rata		35,2	37,78	36,7	35,9	35,44	35,26	35,58	35,86
SD		0,29155	0,17889	0,38079	0,43012	0,29665	0,34351	0,38341	0,32094

Replikasi	Perlakuan	T0	T demam	T30	T60	T90	T120	T150	T180
1	Ekstrak daun kemangi : kenikir 150 mg/kg BB : 210 mg/kg BB	34,6	36,8	35,7	35,5	35	34,5	35,3	35,5
2		34,2	36,8	35,5	35,4	35	34,9	35,1	35,2
3		34,3	36,7	35,8	35,7	35,5	35,3	35,7	35,9
4		34,5	36,3	35,9	35,8	35,6	35,5	35,7	36
5		34,8	36,4	35,8	35,5	35	34,9	35,1	35,3
Rata-rata		34,48	36,6	35,74	35,58	35,22	35,02	35,38	35,58
SD		0,23875	0,23452	0,15166	0,16432	0,30332	0,38987	0,30332	0,35637
1	Ekstrak daun kemangi : kenikir 225 mg/kg BB : 105 mg/kgBB	35,8	36,8	35,8	35,6	35,2	35,3	35	35,4
2		35,1	36,7	36,3	36	35,8	35,5	35,7	35,9
3		35,6	36,9	36,5	35,5	35,3	35	35,6	36,1
4		35,7	36,8	36	35,9	35,5	35,4	35,7	35,9
5		35,7	37,5	36,8	36,5	35,9	35,6	35,9	36,2
Rata-rata		35,58	36,94	36,28	35,9	35,54	35,36	35,58	35,9
SD		0,27749	0,32094	0,39623	0,3937	0,30496	0,23022	0,34205	0,30822

Selisih rata-rata suhu rektal

Perlakuan	T30	T60	T90	T120	T150	T180
CMC Na 1% (Kontrol negatif)	-0,2	-1,2	-1,5	-1,7	-2,1	-2,4
	-0,3	-1,8	-2,1	-2,3	-2,5	-2,7
	-1,2	-1,7	-2	-2,2	-2,3	-2,7
	-0,3	-0,6	-1,3	-1,6	-1,8	-2
	-0,6	-1,2	-1,5	-1,8	-2	-2,7
Rata-rata	-0,52	-1,3	-1,68	-1,92	-2,14	-2,5
SD	0,408656	0,479583	0,349285	0,311448	0,270185	0,308221
Parasetamol 1% (Kontrol positif)	0,3	0,5	0,7	1,3	1	0,2
	0,9	1,3	1,3	1,5	0,7	0,4
	0,7	1	1,3	1,3	1	0,5
	0,9	1,1	1,6	2,2	1,8	1,2
	0,4	0,7	0,7	1	0,7	0,3
Rata-rata	0,64	0,92	1,12	1,46	1,04	0,52
SD	0,279285	0,319374	0,402492	0,450555	0,450555	0,396232
Ekstrak daun kemangi : kenikir (75 mg/kgBB : 315 mg/kg BB)	1,1	1,5	2,7	3,1	2,9	2,5
	1,4	2,1	2,3	2,2	1,8	1,6
	0,8	1,6	2,7	2,8	2,3	1,9
	0,7	1,8	1,9	2,2	1,9	1,7
	1,4	2,4	2,1	2,3	2,1	1,9
Rata-rata	1,08	1,88	2,34	2,52	2,2	1,92
SD	0,327109	0,370135	0,357771	0,408656	0,43589	0,349285
Ekstrak daun kemangi : kenikir (150 mg/kg BB : 210 mg/kg BB)	1,1	1,3	1,8	2,3	1,5	1,3
	1,3	1,4	1,8	1,9	1,7	1,6
	0,9	1	1,2	1,4	1	0,8
	0,4	0,5	0,7	0,8	0,6	0,3
	0,6	0,9	1,4	1,5	1,3	1,1
Rata-rata	0,86	1,02	1,38	1,58	1,22	1,02
SD	0,364692	0,356371	0,460435	0,563028	0,432435	0,496991
Ekstrak daun kemangi : kenikir (225 mg/kg BB : 105 mg/kgBB)	1	1,2	1,6	1,5	1,8	1,4
	0,4	0,7	0,9	1,2	1	0,8
	0,4	1,4	1,6	1,9	1,3	0,8
	0,8	0,9	1,3	1,4	1,1	0,9

	0,7	1	1,6	1,9	1,6	1,3
Rata-rata	0,66	1,04	1,4	1,58	1,36	1,04
SD	0,260768	0,270185	0,308221	0,311448	0,336155	0,288097

Lampiran 17. Perhitungan perhitungan AUC

$$AUC = \frac{V_{tn} + V_{tn-1}}{2} \times t_{tn} - t_{n-1}$$

Kelompok kontrol negatif (CMC Na 1%)

Tikus 1

$$AUC_0^{30} = \frac{36,8 + 37}{2} (30 - 0) = 1107$$

$$AUC_{30}^{60} = \frac{37 + 38}{2} (60 - 30) = 1125$$

$$AUC_{60}^{90} = \frac{38 + 38,3}{2} (90 - 60) = 1144,5$$

$$AUC_{90}^{120} = \frac{38,3 + 38,5}{2} (120 - 90) = 1152$$

$$AUC_{120}^{150} = \frac{38,5 + 38,9}{2} (150 - 120) = 1161$$

$$AUC_{150}^{180} = \frac{38,9 + 39,2}{2} (180 - 150) = 1171,5$$

$$AUC_{total} = 1107 + 1125 + 1144,5 + 1152 + 1161 + 1171,5 = 6861$$

Tikus 2

$$AUC_0^{30} = \frac{36,4 + 36,7}{2} (30 - 0) = 1096,5$$

$$AUC_{30}^{60} = \frac{36,7 + 38,2}{2} (60 - 30) = 1123,5$$

$$AUC_{60}^{90} = \frac{38,2 + 38,5}{2} (90 - 60) = 1150,5$$

$$AUC_{90}^{120} = \frac{38,5 + 38,7}{2} (120 - 90) = 1158$$

$$AUC_{120}^{150} = \frac{38,7 + 38,9}{2} (150 - 120) = 1164$$

$$AUC_{150}^{180} = \frac{38,9 + 39,1}{2} (180 - 150) = 1170$$

$$\mathbf{AUC}_{\text{total}} = 1096,5 + 1123,5 + 1150,5 + 1158 + 1164 + 1170 = 6862,5$$

Tikus 3

$$AUC_0^{30} = \frac{36,5 + 37,7}{2} (30 - 0) = 1113$$

$$AUC_{30}^{60} = \frac{37,7 + 38,2}{2} (60 - 30) = 1138,5$$

$$AUC_{60}^{90} = \frac{38,2 + 38,5}{2} (90 - 60) = 1150,5$$

$$AUC_{90}^{120} = \frac{38,5 + 38,7}{2} (120 - 90) = 1158$$

$$AUC_{120}^{150} = \frac{38,7 + 38,8}{2} (150 - 120) = 1162,5$$

$$AUC_{150}^{180} = \frac{38,8 + 39,2}{2} (180 - 150) = 1170$$

$$\mathbf{AUC}_{\text{total}} = 1113 + 1138,5 + 1150,5 + 1158 + 1162,5 + 1170 = 6892,5$$

Tikus 4

$$AUC_0^{30} = \frac{36,9 + 37,2}{2} (30 - 0) = 1111,5$$

$$AUC_{30}^{60} = \frac{37,2 + 37,5}{2} (60 - 30) = 1120,5$$

$$AUC_{60}^{90} = \frac{37,5 + 38,2}{2} (90 - 60) = 1135,5$$

$$AUC_{90}^{120} = \frac{38,2 + 38,5}{2} (120 - 90) = 1150,5$$

$$AUC_{120}^{150} = \frac{38,5 + 38,7}{2} (150 - 120) = 1158$$

$$AUC_{150}^{180} = \frac{38,7 + 38,9}{2} (180 - 150) = 1164$$

$$\mathbf{AUC}_{\text{total}} = 1111,5 + 1120,5 + 1135,5 + 1150,5 + 1158 + 1164 = 6840$$

Tikus 5

$$AUC_0^{30} = \frac{36,5 + 37,1}{2} (30 - 0) = 1104$$

$$AUC_{30}^{60} = \frac{37,1 + 37,7}{2} (60 - 30) = 1122$$

$$AUC_{60}^{90} = \frac{37,7 + 38}{2} (90 - 60) = 1135,5$$

$$AUC_{90}^{120} = \frac{38 + 38,3}{2} (120 - 90) = 1144,5$$

$$AUC_{120}^{150} = \frac{38,3 + 38,5}{2} (150 - 120) = 1152$$

$$AUC_{150}^{180} = \frac{38,5 + 39,2}{2} (180 - 150) = 1165,5$$

$$\mathbf{AUC_{total}} = 1104 + 1122 + 1135,5 + 1144,5 + 1152 + 1165,5 = 6823,5$$

Kelompok kontrol positif (Parasetamol 45 mg/kg BB)

Tikus 1

$$AUC_0^{30} = \frac{36,5 + 36,2}{2} (30 - 0) = 1090,5$$

$$AUC_{30}^{60} = \frac{36,2 + 36}{2} (60 - 30) = 1083$$

$$AUC_{60}^{90} = \frac{36 + 35,8}{2} (90 - 60) = 1077$$

$$AUC_{90}^{120} = \frac{35,8 + 35,2}{2} (120 - 90) = 1065$$

$$AUC_{120}^{150} = \frac{35,2 + 35,5}{2} (150 - 120) = 1060,5$$

$$AUC_{150}^{180} = \frac{35,5 + 36,3}{2} (180 - 150) = 1077$$

$$\mathbf{AUC_{total}} = 1090,5 + 1083 + 1077 + 1065 + 1060,5 + 1077 = 6453$$

Tikus 2

$$AUC_0^{30} = \frac{36,5 + 35,6}{2} (30 - 0) = 1081,5$$

$$AUC_{30}^{60} = \frac{35,6 + 35,2}{2} (60 - 30) = 1062$$

$$AUC_{60}^{90} = \frac{35,2 + 35,2}{2} (90 - 60) = 1056$$

$$AUC_{90}^{120} = \frac{35,2 + 35}{2} (120 - 90) = 1053$$

$$AUC_{120}^{150} = \frac{35 + 35,8}{2} (150 - 120) = 1062$$

$$AUC_{150}^{180} = \frac{35,8 + 36,1}{2} (180 - 150) = 1078,5$$

$$\mathbf{AUC}_{\text{total}} = 1081,5 + 1062 + 1056 + 1053 + 1062 + 1078,5 = 6393$$

Tikus 3

$$AUC_0^{30} = \frac{36 + 35,3}{2} (30 - 0) = 1069,5$$

$$AUC_{30}^{60} = \frac{35,3 + 35}{2} (60 - 30) = 1054,5$$

$$AUC_{60}^{90} = \frac{35 + 34,7}{2} (90 - 60) = 1045,5$$

$$AUC_{90}^{120} = \frac{34,7 + 34,7}{2} (120 - 90) = 1041$$

$$AUC_{120}^{150} = \frac{34,7 + 35}{2} (150 - 120) = 1045,5$$

$$AUC_{150}^{180} = \frac{35 + 35,5}{2} (180 - 150) = 1057,5$$

$$\mathbf{AUC}_{\text{total}} = 1069,5 + 1054,5 + 1045,5 + 1041 + 1045,5 + 1057,5 = 6313,5$$

Tikus 4

$$AUC_0^{30} = \frac{36,7 + 35,8}{2} (30 - 0) = 1087,5$$

$$AUC_{30}^{60} = \frac{35,8 + 35,6}{2} (60 - 30) = 1071$$

$$AUC_{60}^{90} = \frac{35,6 + 35,1}{2} (90 - 60) = 1060,5$$

$$AUC_{90}^{120} = \frac{35,1 + 34,5}{2} (120 - 90) = 1044$$

$$AUC_{120}^{150} = \frac{34,5 + 34,9}{2} (150 - 120) = 1041$$

$$AUC_{150}^{180} = \frac{34,9 + 35,5}{2} (180 - 150) = 1056$$

$$AUC_{\text{total}} = 1087,5 + 1071 + 1060,5 + 1044 + 1041 + 1056 = 6360$$

Tikus 5

$$AUC_0^{30} = \frac{36 + 35,6}{2} (30 - 0) = 1074$$

$$AUC_{30}^{60} = \frac{35,6 + 35,3}{2} (60 - 30) = 1063,5$$

$$AUC_{60}^{90} = \frac{35,3 + 35,3}{2} (90 - 60) = 1059$$

$$AUC_{90}^{120} = \frac{35,3 + 35}{2} (120 - 90) = 1054,5$$

$$AUC_{120}^{150} = \frac{35 + 35,3}{2} (150 - 120) = 1054,5$$

$$AUC_{150}^{180} = \frac{35,3 + 35,7}{2} (180 - 150) = 1065$$

$$AUC_{\text{total}} = 1074 + 1063,5 + 1059 + 1054,5 + 1054,5 + 1065 = 6370,5$$

Kelompok ekstrak etanol daun kemangi : daun kenikir (75 mg : 315 mg/kg BB)

Tikus 1

$$AUC_0^{30} = \frac{37,8 + 36,7}{2} (30 - 0) = 1117,5$$

$$AUC_{30}^{60} = \frac{36,7 + 36,3}{2} (60 - 30) = 1095$$

$$AUC_{60}^{90} = \frac{36,3 + 35,1}{2} (90 - 60) = 1071$$

$$AUC_{90}^{120} = \frac{35,1 + 34,7}{2} (120 - 90) = 1047$$

$$AUC_{120}^{150} = \frac{34,7 + 34,9}{2} (150 - 120) = 1044$$

$$AUC_{150}^{180} = \frac{34,9 + 35,3}{2} (180 - 150) = 1053$$

$$\mathbf{AUC}_{\text{total}} = 1117,5 + 1095 + 1071 + 1047 + 1044 + 1053 = 6427,5$$

Tikus 2

$$AUC_0^{30} = \frac{37,6 + 36,2}{2} (30 - 0) = 1107$$

$$AUC_{30}^{60} = \frac{36,2 + 35,5}{2} (60 - 30) = 1075,5$$

$$AUC_{60}^{90} = \frac{35,5 + 35,3}{2} (90 - 60) = 1062$$

$$AUC_{90}^{120} = \frac{35,3 + 35,4}{2} (120 - 90) = 1060,5$$

$$AUC_{120}^{150} = \frac{35,4 + 35,8}{2} (150 - 120) = 1068$$

$$AUC_{150}^{180} = \frac{35,8 + 36}{2} (180 - 150) = 1077$$

$$\mathbf{AUC}_{\text{total}} = 1107 + 1075,5 + 1062 + 1060,5 + 1068 + 1077 = 6450$$

Tikus 3

$$AUC_0^{30} = \frac{38 + 37,2}{2} (30 - 0) = 1128$$

$$AUC_{30}^{60} = \frac{37,2 + 36,4}{2} (60 - 30) = 1104$$

$$AUC_{60}^{90} = \frac{36,4 + 35,3}{2} (90 - 60) = 1075,5$$

$$AUC_{90}^{120} = \frac{35,3 + 35,2}{2} (120 - 90) = 1057,5$$

$$AUC_{120}^{150} = \frac{35,2 + 35,7}{2} (150 - 120) = 1063,5$$

$$AUC_{150}^{180} = \frac{35,7 + 36,1}{2} (180 - 150) = 1077$$

$$\mathbf{AUC}_{\text{total}} = 1128 + 1104 + 1075,5 + 1057,5 + 1063,5 + 1077 = 6505,5$$

Tikus 4

$$AUC_0^{30} = \frac{37,6 + 36,9}{2} (30 - 0) = 1117,5$$

$$AUC_{30}^{60} = \frac{36,9 + 35,8}{2} (60 - 30) = 1090,5$$

$$AUC_{60}^{90} = \frac{35,8 + 35,7}{2} (90 - 60) = 1072,5$$

$$AUC_{90}^{120} = \frac{35,7 + 35,4}{2} (120 - 90) = 1066,5$$

$$AUC_{120}^{150} = \frac{35,4 + 35,7}{2} (150 - 120) = 1066,5$$

$$AUC_{150}^{180} = \frac{35,7 + 35,9}{2} (180 - 150) = 1074$$

$$\mathbf{AUC}_{\text{total}} = 1117,5 + 1090,5 + 1072,5 + 1066,5 + 1066,5 + 1074 = 6487,5$$

Tikus 5

$$AUC_0^{30} = \frac{37,9 + 36,5}{2} (30 - 0) = 1116$$

$$AUC_{30}^{60} = \frac{36,5 + 35,5}{2} (60 - 30) = 1080$$

$$AUC_{60}^{90} = \frac{35,5 + 35,8}{2} (90 - 60) = 1069,5$$

$$AUC_{90}^{120} = \frac{35,8 + 35,6}{2} (120 - 90) = 1071$$

$$AUC_{120}^{150} = \frac{35,6 + 35,8}{2} (150 - 120) = 1071$$

$$AUC_{150}^{180} = \frac{35,8 + 36}{2} (180 - 150) = 1077$$

$$AUC_{total} = 1116 + 1080 + 1069,5 + 1071 + 1071 + 1077 = 6484,5$$

Kelompok ekstrak etanol daun kemangi : daun kenikir (150 mg : 210 mg/kg BB)

Tikus 1

$$AUC_0^{30} = \frac{36,8 + 35,7}{2} (30 - 0) = 1087,5$$

$$AUC_{30}^{60} = \frac{35,7 + 35,5}{2} (60 - 30) = 1068$$

$$AUC_{60}^{90} = \frac{35,5 + 35}{2} (90 - 60) = 1057,5$$

$$AUC_{90}^{120} = \frac{35 + 34,5}{2} (120 - 90) = 1042,5$$

$$AUC_{120}^{150} = \frac{34,5 + 35,3}{2} (150 - 120) = 1047$$

$$AUC_{150}^{180} = \frac{35,3 + 35,5}{2} (180 - 150) = 1062$$

$$AUC_{total} = 1087,5 + 1068 + 1057,5 + 1042,5 + 1047 + 1062 = 6364,5$$

Tikus 2

$$AUC_0^{30} = \frac{36,8 + 35,5}{2} (30 - 0) = 1084,5$$

$$AUC_{30}^{60} = \frac{35,5 + 35,4}{2} (60 - 30) = 1063,5$$

$$AUC_{60}^{90} = \frac{35,4 + 35}{2} (90 - 60) = 1056$$

$$AUC_{90}^{120} = \frac{35 + 34,9}{2} (120 - 90) = 1048,5$$

$$AUC_{120}^{150} = \frac{34,9 + 35,1}{2} (150 - 120) = 1050$$

$$AUC_{150}^{180} = \frac{35,1 + 35,2}{2} (180 - 150) = 1054,5$$

$$\mathbf{AUC}_{\text{total}} = 1084,5 + 1063,5 + 1056 + 1048,5 + 1050 + 1054,5 = 6357$$

Tikus 3

$$AUC_0^{30} = \frac{36,7 + 35,8}{2} (30 - 0) = 1087,5$$

$$AUC_{30}^{60} = \frac{35,8 + 35,7}{2} (60 - 30) = 1072,5$$

$$AUC_{60}^{90} = \frac{35,7 + 35,5}{2} (90 - 60) = 1068$$

$$AUC_{90}^{120} = \frac{35,5 + 35,3}{2} (120 - 90) = 1062$$

$$AUC_{120}^{150} = \frac{35,3 + 35,7}{2} (150 - 120) = 1065$$

$$AUC_{150}^{180} = \frac{35,7 + 35,9}{2} (180 - 150) = 1074$$

$$\mathbf{AUC}_{\text{total}} = 1087,5 + 1072,5 + 1068 + 1062 + 1065 + 1074 = 6429$$

Tikus 4

$$AUC_0^{30} = \frac{36,3 + 35,9}{2} (30 - 0) = 1083$$

$$AUC_{30}^{60} = \frac{35,9 + 35,8}{2} (60 - 30) = 1075,5$$

$$AUC_{60}^{90} = \frac{35,8 + 35,6}{2} (90 - 60) = 1071$$

$$AUC_{90}^{120} = \frac{35,6 + 35,5}{2} (120 - 90) = 1066,5$$

$$AUC_{120}^{150} = \frac{35,5 + 35,7}{2} (150 - 120) = 1068$$

$$AUC_{150}^{180} = \frac{35,7 + 36}{2} (180 - 150) = 1075,5$$

$$\mathbf{AUC}_{\text{total}} = 1083 + 1075,5 + 1071 + 1066,5 + 1068 + 1075,5 = 6439,5$$

Tikus 5

$$AUC_0^{30} = \frac{36,4 + 35,8}{2} (30 - 0) = 1083$$

$$AUC_{30}^{60} = \frac{35,8 + 35,5}{2} (60 - 30) = 1069,5$$

$$AUC_{60}^{90} = \frac{35,5 + 35}{2} (90 - 60) = 1057,5$$

$$AUC_{90}^{120} = \frac{35 + 34,9}{2} (120 - 90) = 1048,5$$

$$AUC_{120}^{150} = \frac{34,9 + 35,1}{2} (150 - 120) = 1050$$

$$AUC_{150}^{180} = \frac{35,1 + 35,3}{2} (180 - 150) = 1056$$

$$\mathbf{AUC}_{\text{total}} = 1083 + 1069,5 + 1057,5 + 1048,5 + 1050 + 1056 = 6364,5$$

Kelompok ekstrak etanol daun kemangi : daun kenikir (225 mg : 105 mg/kg BB)

Tikus 1

$$AUC_0^{30} = \frac{36,8 + 35,8}{2} (30 - 0) = 1089$$

$$AUC_{30}^{60} = \frac{35,8 + 35,6}{2} (60 - 30) = 1071$$

$$AUC_{60}^{90} = \frac{35,6 + 35,2}{2} (90 - 60) = 1062$$

$$AUC_{90}^{120} = \frac{35,2 + 35,3}{2} (120 - 90) = 1057,5$$

$$AUC_{120}^{150} = \frac{35,3 + 35}{2} (150 - 120) = 1054,5$$

$$AUC_{150}^{180} = \frac{35 + 35,4}{2} (180 - 150) = 1056$$

$$\mathbf{AUC}_{\text{total}} = 1089 + 1071 + 1062 + 1057,5 + 1054,5 + 1056 = 6390$$

Tikus 2

$$AUC_0^{30} = \frac{36,7 + 36,3}{2} (30 - 0) = 1095$$

$$AUC_{30}^{60} = \frac{36,3 + 36}{2} (60 - 30) = 1084,5$$

$$AUC_{60}^{90} = \frac{36 + 35,8}{2} (90 - 60) = 1077$$

$$AUC_{90}^{120} = \frac{35,8 + 35,5}{2} (120 - 90) = 1069,5$$

$$AUC_{120}^{150} = \frac{35,5 + 35,7}{2} (150 - 120) = 1068$$

$$AUC_{150}^{180} = \frac{35,7 + 35,9}{2} (180 - 150) = 1074$$

$$\mathbf{AUC}_{\text{total}} = 1095 + 1084,5 + 1077 + 1069,5 + 1068 + 1074 = 6468$$

Tikus 3

$$AUC_0^{30} = \frac{36,9 + 36,5}{2} (30 - 0) = 1101$$

$$AUC_{30}^{60} = \frac{36,5 + 35,5}{2} (60 - 30) = 1080$$

$$AUC_{60}^{90} = \frac{35,5 + 35,3}{2} (90 - 60) = 1062$$

$$AUC_{90}^{120} = \frac{35,3 + 35}{2} (120 - 90) = 1054,5$$

$$AUC_{120}^{150} = \frac{35 + 35,6}{2} (150 - 120) = 1059$$

$$AUC_{150}^{180} = \frac{35,6 + 36,1}{2} (180 - 150) = 1075,5$$

$$\mathbf{AUC}_{\text{total}} = 1101 + 1080 + 1062 + 1054,5 + 1059 + 1075,5 = 6432$$

Tikus 4

$$AUC_0^{30} = \frac{36,8 + 36}{2} (30 - 0) = 1092$$

$$AUC_{30}^{60} = \frac{36 + 35,9}{2} (60 - 30) = 1078,5$$

$$AUC_{60}^{90} = \frac{35,9 + 35,5}{2} (90 - 60) = 1071$$

$$AUC_{90}^{120} = \frac{35,5 + 35,4}{2} (120 - 90) = 1063,5$$

$$AUC_{120}^{150} = \frac{35,4 + 35,7}{2} (150 - 120) = 1066,5$$

$$AUC_{150}^{180} = \frac{35,7 + 35,9}{2} (180 - 150) = 1074$$

$$\mathbf{AUC}_{\text{total}} = 1092 + 1078,5 + 1071 + 1063,5 + 1066,5 + 1074 = 6445,5$$

Tikus 5

$$AUC_0^{30} = \frac{7,5 + 36,8}{2} (30 - 0) = 1114,5$$

$$AUC_{30}^{60} = \frac{36,8 + 36,5}{2} (60 - 30) = 1099,5$$

$$AUC_{60}^{90} = \frac{36,5 + 35,9}{2} (90 - 60) = 1086$$

$$AUC_{90}^{120} = \frac{35,9 + 35,6}{2} (120 - 90) = 1072,5$$

$$AUC_{120}^{150} = \frac{35,6 + 35,9}{2} (150 - 120) = 1072,5$$

$$AUC_{150}^{180} = \frac{35,9 + 36,2}{2} (180 - 150) = 1081,5$$

$$\mathbf{AUC}_{\text{total}} = 1114,5 + 1099,5 + 1086 + 1072,5 + 1072,5 + 1081,5 = 6526,5$$

Lampiran 18. Rata-rata AUC Antipiretik

Replikasi	Perlakuan	T30	T60	T90	T120	T150	T180	AUC Total
1	CMC Na 1% (kontrol negatif)	1107	1125	1144,5	1152	1161	1171,5	6861
2		1096,5	1123,5	1150,5	1158	1164	1170	6862,5
3		1113	1138,5	1150,5	1158	1162,5	1170	6892,5
4		1111,5	1120,5	1135,5	1150,5	1158	1164	6840
5		1104	1122	1135,5	1144,5	1152	1165,5	6859,5
Rata-rata		1106,4	1125,9	1143,3	1152,6	1159,5	1168,2	6863,1
SD		16,1067	7,24051	7,52994	5,6723	4,74342	3,25192	4,54079189
1	Parasetamol 45 mg/kg BB (kontrol positif)	1090,5	1083	1077	1065	1060,5	1077	6453
2		1081,5	1062	1056	1053	1062	1078,5	6393
3		1069,5	1054,5	1045,5	1041	1045,5	1057,5	6313,5
4		1087,5	1071	1060,5	1044	1041	1056	6360
5		1074	1063,5	1059	1054,5	1054,5	1065	6370,5
Rata-rata		1080,6	1066,8	1059,6	1051,5	1052,7	1066,8	6378
SD		8,84873	10,7854	11,3545	9,48683	9,21005	10,5747	0,99833779
1	Ekstrak daun kemangi : kenikir 75 mg/kgBB : 315 mg/kg BB	1117,5	1095	1071	1047	1044	1053	6427,5
2		1107	1075,5	1062	1060,5	1068	1077	6450
3		1128	1104	1075,5	1057,5	1063,5	1077	6505,5
4		1117,5	1090,5	1072,5	1066,5	1066,5	1074	6487,5
5		1116	1080	1069,5	1071	1071	1077	6484,5
Rata-rata		1117,2	1089	1070,1	1060,5	1062,6	1071,6	6471
SD		7,45486	11,4728	5,04232	9,18559	10,7436	10,4785	2,42496604

Replikasi	Perlakuan	T30	T60	T90	T120	T150	T180	AUC Total
1	Ekstrak daun kemangi : kenikir 150 mg/kg BB : 210 mg/kg BB	1087,5	1068	1057,5	1042,5	1047	1062	6364,5
2		1084,5	1063,5	1056	1048,5	1050	1054,5	6357
3		1087,5	1072,5	1068	1062	1065	1074	6429
4		1083	1075,5	1071	1066,5	1068	1075,5	6439,5
5		1083	1069,5	1057,5	1048,5	1050	1056	6364,5
Rata-rata		1085,1	1069,8	1062	1053,6	1056	1064,4	6390,9
SD		2,27486	4,54973	6,95521	10,1514	9,72111	9,87041	3,27173004
Replikasi	Perlakuan	T30	T60	T90	T120	T150	T180	AUC Total
1	Ekstrak daun kemangi : kenikir 225 mg/kg BB : 105 mg/kgBB	1089	1071	1062	1057,5	1054,5	1056	6390
2		1095	1084,5	1077	1069,5	1068	1074	6468
3		1101	1080	1062	1054,5	1059	1075,5	6432
4		1092	1078,5	1071	1063,5	1066,5	1074	6445,5
5		1114,5	1099,5	1086	1072,5	1072,5	1081,5	6526,5
Rata-rata		1098,3	1082,7	1071,6	1063,5	1064,1	1072,2	6452,4
SD		10,0846	10,5747	10,2616	7,64853	7,24051	9,56948	1,42669139

Lampiran 19. Perhitungan % Daya Antipiretik

$$\% \text{DAP} = \frac{\text{AUCk} + \text{AUCp}}{\text{AUCk}} \times 100\%$$

1. Parasetamol 1%

$$\text{Tikus 1} = \frac{6861 - 6453}{6861} \times 100\% = 5,94 \%$$

$$\text{Tikus 2} = \frac{6862,5 - 6393}{6862,5} \times 100\% = 6,84 \%$$

$$\text{Tikus 3} = \frac{6892,5 - 6313,5}{6892,5} \times 100\% = 8,40 \%$$

$$\text{Tikus 4} = \frac{6840 - 6360}{6840} \times 100\% = 7,01 \%$$

$$\text{Tikus 5} = \frac{6823,5 - 6370,5}{6823,5} \times 100\% = 6,63 \%$$

2. Ekstrak daun kemangi : kenikir (75 mg/kgBB : 315 mg/kg BB)

$$\text{Tikus 1} = \frac{6861 - 6427,5}{6861} \times 100\% = 6,31 \%$$

$$\text{Tikus 2} = \frac{6862,5 - 6450}{6862,5} \times 100\% = 6,01 \%$$

$$\text{Tikus 3} = \frac{6892,5 - 6505,5}{6892,5} \times 100\% = 5,61\%$$

$$\text{Tikus 4} = \frac{6840 - 6487,5}{6840} \times 100\% = 5,15\%$$

$$\text{Tikus 5} = \frac{6823,5 - 6484,5}{6823,5} \times 100\% = 4,96 \%$$

3. Ekstrak daun kemangi : kenikir (150 mg/kg BB : 210 mg/kg BB)

$$\text{Tikus 1} = \frac{6861 - 6364,5}{6861} \times 100\% = 7,23 \%$$

$$\text{Tikus 2} = \frac{6862,5 - 6357}{6862,5} \times 100\% = 7,36 \%$$

$$\text{Tikus 3} = \frac{6892,5 - 6429}{6892,5} \times 100\% = 6,72 \%$$

$$\text{Tikus 4} = \frac{6840 - 6439,5}{6840} \times 100\% = 5,85 \%$$

$$\text{Tikus 5} = \frac{6823,5 - 6364,5}{6823,5} \times 100\% = 6,72 \%$$

4. Ekstrak daun kemangi : kenikir (225 mg/kg BB : 105 mg/kgBB)

$$\text{Tikus 1} = \frac{6861 - 6390}{6861} \times 100\% = 6,86 \%$$

$$\text{Tikus 2} = \frac{6862,5 - 6469}{6862,5} \times 100\% = 5,74 \%$$

$$\text{Tikus 3} = \frac{6892,5 - 6432}{6892,5} \times 100\% = 6,68 \%$$

$$\text{Tikus 4} = \frac{6840 - 6445,5}{6840} \times 100\% = 5,76 \%$$

$$\text{Tikus 5} = \frac{6823,5 - 6526,5}{6823,5} \times 100\% = 4,35 \%$$

Lampiran 20. Rata-rata % Daya antipiretik

Replikasi	Kelompok	%DAP
1	Parasetamol 45 mg/kg BB	5,94
2		6,84
3		8,4
4		7,01
5		6,63
rata-rata		6,964
SD		0,899961

Replikasi	Kelompok	%DAP
1	Ekstrak daun kemangi : kenikir (75 mg/kg BB : 315 mg/kg BB)	6,31
2		6,01
3		5,61
4		5,15
5		4,96
rata-rata		5,608
SD		0,566586

Replikasi	Kelompok	%DAP
1	Ekstrak daun kemangi : kenikir (150 mg/kg BB : 210 mg/kg BB)	7,23
2		7,36
3		6,72
4		5,85
5		6,72
rata-rata		6,776
SD		0,593911

Replikasi	Kelompok	%DAP
1	Ekstrak daun kemangi : kenikir (225 mg/kg BB : 105 mg/kg BB)	6,86
2		5,74
3		6,68
4		5,76
5		4,35
rata-rata		5,878
SD		0,996905

Lampiran 21. Hasil data statistik dan rata-rata AUC

❖ DELTA T30

		Tests of Normality ^a					
PERLAKUAN		Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
DeltaT30	CMC Na (Kontrol negatif)	.305	5	.145	.813	5	.103
	Paracetamol (kontrol positif)	.224	5	.200*	.865	5	.246
	Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	.236	5	.200*	.870	5	.265
	Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	.162	5	.200*	.971	5	.884
	Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	.241	5	.200*	.902	5	.421

*. This is a lower bound of the true significance.

a. WAKTU = T30

b. Lilliefors Significance Correction

Keterangan : Dari data uji *Shapiro-Wilk* diperoleh sig. > 0,05 (H_0 diterima). Disimpulkan data tersebut terdistribusi normal, sehingga dapat dilakukan analisis *one way ANOVA*.

Test of Homogeneity of Variances^a

		Levene Statistic	df1	df2	Sig.
Delta T30	Based on Mean	.310	4	20	.868
	Based on Median	.110	4	20	.978
	Based on Median and with adjusted df	.110	4	10.335	.976
	Based on trimmed mean	.280	4	20	.887

a. WAKTU = T30

Keterangan : Nilai probabilitas Lavene Statistic adalah 0,887 > 0,05 maka H_0 diterima, sehingga dapat disimpulkan bahwa data tersebut homogen.

ANOVA^a

Delta T30

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.710	4	1.927	17.427	.000
Within Groups	2.212	20	.111		
Total	9.922	24			

a. WAKTU = T30

Keterangan : Dari data uji ANOVA menunjukkan terdapat perbedaan dengan nilai signifikansi sebesar 0,000 ($p < 0,05$).

Homogeneous Subsets

Delta T30^a

Tukey HSD^b

PERLAKUAN	N	Subset for alpha = 0.05	
		1	2
CMC Na	5	-.5200	
Paracetamol	5		.6400
Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	5		.6600
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	5		.8600
Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	5		1.0800
Sig.		1.000	.262

Means for groups in homogeneous subsets are displayed.^a

a. WAKTU = T30

b. Uses Harmonic Mean Sample Size = 5.000.

❖ Delta T60

Tests of Normality^a

PERLAKUAN	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Delta T60 CMC	.217	5	.200*	.916	5	.508
PCT	.199	5	.200*	.967	5	.858
Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	.186	5	.200*	.943	5	.687
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	.184	5	.200*	.950	5	.738
Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	.159	5	.200*	.990	5	.980

*. This is a lower bound of the true significance.

a. WAKTU = T60

b. Lilliefors Significance Correction

Keterangan :

Dari data uji *Shapiro-Wilk* diperoleh signifikan $> 0,05$ (H_0 diterima). Disimpulkan data tersebut terdistribusi normal, sehingga dapat dilakukan analisis *one way* ANOVA.

Test of Homogeneity of Variances^a

		Levene Statistic	df1	df2	Sig.
Delta T60	Based on Mean	.452	4	20	.770
	Based on Median	.267	4	20	.896
	Based on Median and with adjusted df	.267	4	16.020	.895
	Based on trimmed mean	.467	4	20	.759

a. WAKTU = T60

Keterangan : Nilai probabilitas Lavene Statistic adalah $0,759 > 0,05$ maka H_0 diterima, sehingga dapat disimpulkan bahwa data tersebut homogen.

ANOVA^a

Delta T60

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.290	4	7.073	52.859	.000
Within Groups	2.676	20	.134		
Total	30.966	24			

a. WAKTU = T60

Keterangan : Dari data uji ANOVA menunjukkan terdapat perbedaan dengan hasil nilai signifikan sebesar $0,000 < 0,05$. Terdapat perbedaan AUC antar kelompok perlakuan.

Homogeneous Subsets

Delta T60^a

Tukey HSD^b

PERLAKUAN	N	Subset for alpha = 0.05		
		1	2	3
CMC Na	5	-1.3000		
Paracetamol	5		.9200	
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	5		1.0200	
Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	5		1.0400	
Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	5			1.8800
Sig.		1.000	.984	1.000

Means for groups in homogeneous subsets are displayed.^a

a. WAKTU = T60

b. Uses Harmonic Mean Sample Size = 5.000.

❖ Delta T90

Tests of Normality^a

PERLAKUAN		Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Delta T90	CMC	.297	5	.172	.872	5	.275
	PCT	.273	5	.200*	.852	5	.201
	Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	.243	5	.200*	.894	5	.377
	Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	.219	5	.200*	.905	5	.437
	Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	.342	5	.057	.761	5	.037

*. This is a lower bound of the true significance.

a. WAKTU = T90

a. Lilliefors Significance Correction

Keterangan : Dari data uji *Shapiro-Wilk* diperoleh sig. $> 0,05$ (H_0 diterima). Disimpulkan data tersebut terdistribusi normal, sehingga dapat dilakukan analisis *one way* ANOVA.

Test of Homogeneity of Variances^a

		Levene Statistic	df1	df2	Sig.
Delta T90	Based on Mean	.302	4	20	.873
	Based on Median	.185	4	20	.944
	Based on Median and with adjusted df	.185	4	18.265	.943
	Based on trimmed mean	.302	4	20	.873

a. WAKTU = T90

Keterangan : Nilai probabilitas Lavene Statistic adalah $0,873 > 0,05$ maka H_0 diterima, sehingga dapat disimpulkan bahwa data tersebut homogen.

ANOVA^a

Delta T90

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	46.290	4	11.573	80.477	.000
Within Groups	2.876	20	.144		
Total	49.166	24			

a. WAKTU = T90

Keterangan : Dari data uji ANOVA menunjukkan terdapat perbedaan dengan hasil nilai signifikan sebesar $0,000 < 0,05$. Terdapat perbedaan AUC antar kelompok perlakuan.

Homogeneous Subsets

Delta T90^aTukey HSD^b

PERLAKUAN	N	Subset for alpha = 0.05		
		1	2	3
CMC Na	5	-1.6800		
Paracetamol	5		1.1200	
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	5		1.3800	
Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	5		1.4000	
Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	5			2.3400
Sig.		1.000	.769	1.000

Means for groups in homogeneous subsets are displayed.^a

a. WAKTU = T90

b. Uses Harmonic Mean Sample Size = 5.000.

❖ AUC

Tests of Normality^a

PERLAKUAN	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
AUC CMC Na	.313	5	.124	.896	5	.389
Paracetamol	.184	5	.200*	.976	5	.910
Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	.118	5	.200*	.995	5	.994
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	.259	5	.200*	.856	5	.214
Ekstrak daun kemangi kenikir 225 mg : 105 mg/kg BB	.161	5	.200*	.984	5	.954

*. This is a lower bound of the true significance.

a. WAKTU = AUC

a. Lilliefors Significance Correction

Keterangan : Dari data uji *Shapiro-Wilk* diperoleh sig. $> 0,05$ (H_0 diterima). Disimpulkan data tersebut terdistribusi normal, sehingga dapat dilakukan analisis *one way* ANOVA

Test of Homogeneity of Variances^a

	Levene Statistic	df1	df2	Sig.
AUC Based on Mean	1.161	4	20	.357
Based on Median	.732	4	20	.581
Based on Median and with adjusted df	.732	4	14.908	.584
Based on trimmed mean	1.148	4	20	.363

a. WAKTU = AUC

Keterangan : Nilai probabilitas Lavene Statistic adalah $0,363 > 0,05$ maka H_0 diterima, sehingga dapat disimpulkan bahwa data tersebut homogen

ANOVA^a

AUC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	803686.860	4	200921.715	127.865	.000
Within Groups	31427.100	20	1571.355		
Total	835113.960	24			

a. WAKTU = AUC

Keterangan : Dari data uji ANOVA menunjukkan terdapat perbedaan dengan hasil nilai signifikan sebesar $0,000 < 0,05$. Terdapat perbedaan AUC antar kelompok perlakuan.

AUC

Duncan^a

PERLAKUAN	N	Subset for alpha = 0.05		
		1	2	3
PCT	5	6378.000		
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	5	6390.900		
Ekstrak daun kemangi kenikir 225 mg : 105 mg/kg BB	5		6452.400	
Ekstrak daun kemangi kenikir 75 mg : 315 mg/kg BB	5		6471.000	
CMC	5			6863.100
Sig.		.617	.472	1.000

❖ %DAP

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
KELOMPOK		Statistic	df	Sig.	Statistic	df	Sig.
DAP	Paracetamol	.280	5	.200*	.927	5	.578
	Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	.266	5	.200*	.903	5	.427
	Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	.289	5	.200*	.922	5	.543
	Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	.245	5	.200*	.903	5	.429

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Keterangan : Dari data uji *Shapiro-Wilk* diperoleh sig. > 0,05 (H_0 diterima). Disimpulkan data tersebut terdistribusi normal, sehingga dapat dilakukan analisis *one way ANOVA*

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
DAP	Based on Mean	.488	3	16	.695
	Based on Median	.388	3	16	.763
	Based on Median and with adjusted df	.388	3	13.361	.763
	Based on trimmed mean	.498	3	16	.689

Keterangan : Nilai probabilitas Lavene Statistic adalah $0,689 > 0,05$ maka H_0 diterima, sehingga dapat disimpulkan bahwa data tersebut homogen

ANOVA

DAP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.422	3	1.807	2.949	.064
Within Groups	9.806	16	.613		
Total	15.229	19			

Keterangan : Dari data uji ANOVA menunjukkan terdapat perbedaan dengan hasil nilai signifikan sebesar $0,064 > 0,05$. Tidak terdapat perbedaan antar kelompok perlakuan.

DAP

Duncan^a

PERLAKUAN	N	Subset for alpha = 0.05	
		1	2
Ekstrak daun kemangi : kenikir 75 mg : 315 mg/kg BB	5	5.608	
Ekstrak daun kemangi : kenikir 225 mg : 105 mg/kg BB	5	5.878	5.878
Ekstrak daun kemangi : kenikir 150 mg : 210 mg/kg BB	5		6.776
PCT	5		6.964
Sig.		.595	.054